



**CALABARZON**

# Updated Regional Development Plan

**2011-2016**





**CALABARZON**  
**UPDATED REGIONAL DEVELOPMENT PLAN**  
**2011 to 2016**

Calamba City  
November 2013





Republic of the Philippines

**Regional Development Council**  
Calabarzon

**RDC RESOLUTION NO. IV-A-27-2013**

**RESOLUTION ADOPTING THE UPDATED CALABARZON REGIONAL  
DEVELOPMENT PLAN 2011-2016**

**WHEREAS**, the Updated Regional Development Plan (RDP) of Calabarzon shall focus on prioritizing development goals and outcomes to accelerate the Plan targets within the remaining three years as guided by the President's 'Social Contract with the Filipino People' towards rapid and sustained growth;

**WHEREAS**, the formulation of the Plan was subjected to a multi-stakeholder consultation process from the regional and local levels;

**WHEREAS**, the Plan is envisioned to be an addendum to the Calabarzon RDP 2011-2016 and pursuant to the vision of Calabarzon to be a liveable and globally competitive industrial region;

**WHEREAS**, the updated Plan consists of ten chapters namely: 1- In Pursuit of Inclusive Growth; 2 - Macroeconomy; 3 - Competitive Industry and Services Sectors; 4 - Competitive and Sustainable Agriculture and Fisheries Sector; 5 - Accelerating Infrastructure Development; 6 - Towards a Resilient and Inclusive Financial System; 7 - Good Governance and the Rule of Law; 8 - Social Development; 9 - Peace and Security; and 10 - Conservation, Protection and Rehabilitation of the Environment and Natural Resources;

**NOW THEREFORE**, on motion duly seconded, **BE IT RESOLVED, AS IT IS HEREBY RESOLVED**, that the RDC IV-A adopts the Updated Calabarzon Regional Development Plan for the period 2013 to 2016 as the blueprint for regional development,

**APPROVED** this 21<sup>st</sup> day of November, 2013 at TESDA Women Center, Taguig City.

-

Certified Correct:

**FIDEL T. UDARBE**

Secretary

Attested by:

**AGNES M. ESPINAS**

Acting Chairperson  
and NEDA OIC-Regional Director





## Message

Calabarzon's Updated Regional Development Plan (RDP) draws from the effective execution of development programs and policies in the first three years of its implementation.

At the national level, the strong macroeconomic fundamentals resulted in stronger investor interest, improved competitiveness rankings, and recent investment grade status granted by credit rating agencies. However, we are mindful that the experience of growth is still not enough to make a significant impact on our poverty reduction and employment creation goals across the country. Thus, the need to purposefully consider spatial and sectoral concerns becomes the thrust of the Updated Philippine Development Plan (PDP) at the national level and the Updated RDPs at the regional level.

The Regional Development Council (RDC), in crafting this plan, took stock of the accomplishments achieved and challenges encountered in the first three years of its implementation. Various stakeholders were engaged through a series of consultations to ensure that the entire process of development would be inclusive.

With a renewed desire to deliver inclusive growth, this plan provides the spatial dimension to the Updated PDP by identifying region-specific resources, needs and interventions. While Calabarzon's Updated RDP provides the framework for local development, strategies are parallel with the national plan to ensure alignment of national and regional policies and programs.

This plan is a living document that validates RDC's commitment to achieve the region's development goals. We hope that through this Updated RDP, development in Calabarzon shall be appropriately guided through the prudent use of its vast natural resources and a productive partnership between government and an engaged and active citizenry.

We, in NEDA, fully support the region's desire for inclusive growth as we all strive to not leave a single Filipino lagging behind our country's economic successes.

A handwritten signature in black ink, appearing to read 'A. Balisacan'.

**ARSENIO M. BALISACAN**

Secretary of Socioeconomic Planning and  
NEDA Director-General



## Foreword



The midterm updating of the Calabarzon Regional Development Plan 2011 to 2016 looks into the accomplishments of the last three years of administration of President Benigno S. Aquino under the goal of rapid, sustained and inclusive growth. Likewise, it focuses on prioritizing development goals and outcomes to accelerate the attainment of Plan targets within the remaining three years.

Consistent with the President's Social Contract with the Filipino people, the region pursued the challenges brought forth by its being a highly industrial hub. It took on the challenge of increasing employment where it has achieved a growth from 4.49 million to 4.75 million or an increase of 5.8 percent. This resulted from the influx of investors primarily in the region's economic zones. The challenge to address poverty propelled the heightened implementation of social safety nets and the promotion of enterprises that encouraged self-employment and the development of small and medium enterprises.

Likewise, the call for global competitiveness challenged the regional line agencies, local government units in partnership with the private sector to work towards improved processes for doing business and the provision of support services, facilities and utilities that help achieve the creation of a globally competitive environment. The achievement of the region in the competitiveness arena resulted to the recognition of several of its pilot cities and municipalities that ranked high among the 122 cities and 163 municipalities nationwide.

Cognizant of the potentials in terms of its human resource and the natural resource-rich provinces of Calabarzon, the Regional Development Council, as the primary policy-making body in the region, endeavors to promote effective partnership with the civil society organizations, the non-government organizations, the academe, and the business sector to achieve the increased participation of the people in productive economic activities. This further calls for improved efficiency in the delivery of services among government instrumentalities as well as the continued development of the region's human resource.

With the updated Calabarzon RDP 2011 to 2016 as the blueprint for regional development, the stakeholders and partners are enjoined to use it as the guide for collaborative initiatives, plans and undertakings. With concerted efforts, the region's economy is envisioned to achieve the targets set for the Aquino Administration.

A handwritten signature in black ink, appearing to read 'Agnes M. Espinas'.

**AGNES M. ESPINAS**  
Acting Chairperson

Calabarzon Regional Development Council

# Acknowledgement

The completion of the Calabarzon Regional Development Plan updating was made possible through the collaborative efforts of the members of the Regional Development Council and its partners.

Taking off from the updating process adopted at the national level, planning committees were created composed of representatives from the Regional Line Agencies, Local Government Units, State Universities, and the Private Sector. Worthy to mention are the dedication and hardwork put in by the men and women of the aforesaid institutions that complemented the lean manpower of the RDC Secretariat.

The partnership and the established links facilitated data gathering, input generation and the review of the draft chapters. The completion of the Regional Social and Economic Trends through the assistance of the National Statistical Coordination Board, National Statistics Office, Bureau of Agricultural Statistics as well as the contributing members of the Regional Statistics Coordination Committee under the RDC was timely and useful for the RDP updating.

Existing plans and documents of the various sectors such as the National Tourism Master Plan; Flood Control Master Plan for Metro Manila and Surrounding Areas; Integrated Transport Strategy for Bicol and Calabarzon; the National Spatial Strategy; and the Draft Information and Communication Technology Roadmap 2012 to 2016 were useful bases for the sectoral assessments and identification of challenges.

The guidelines issued by the NEDA National Development Office for the updating of the Philippine Development Plan 2011 to 2016 provided direction in proceeding with the regional plan updating. It was instrumental in the current format of the regional plan that was one major improvement in the updated RDP along with substantial sectoral updates.

The essential substance of the original RDP took shape through the technical inputs of important individuals and institutions. Thus, still recognized in the updating is the Palafox Associates that was responsible for the regional spatial development strategies that remained to be the major part of the current plan.

Also recognized with gratitude is the NEDA Calabarzon technical secretariat comprised of hardworking and selfless men and women who sacrificed vacations and extended work hours to complete the RDP.

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

Thank you.

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## List of Acronyms

4Ps	Pantawid Pamilyang Pilipino Program
ADR	Alternative Dispute Resolution
AEC	ASEAN Economic Community
AFMA	Agriculture and Fisheries Modernization Act
AFP	Armed Forces of the Philippines
AHFF	Agriculture, Hunting, Forestry and Fishery
ARBOs	Agrarian Reform Beneficiaries Organizations
ARBs	Agrarian Reform Beneficiaries
ARCs	Agrarian Reform Communities
ARG	Automatic Rain Gauges
ARTA	Anti-Red Tape Act of 2007
ASB	Anti-Smoke Belching
ASEAN	Association of Southeast Asian Nations
AVGR	Average Population Growth Rate
BATELEC	Batangas Electric Cooperative, Inc.
BatSU	Batangas State University
BCP	Business Continuity Plan
BEMONC	Basic Emergency Maternal Obstetric and New-born Care
BFAR	Bureau of Fisheries and Aquatic Resources
BHS	Barangay Health Stations
BIR	Bureau of Internal Revenue
BLEP	Barangay Line Enhancement Program
BLGF	Bureau of Local Government and Finance
BNR	Business Name Registration
BOD	Biochemical Oxygen Demand
BPAP	Business Processing Association of the Philippines
BPLO	Business Permits and Licensing Office
BPLS	Business Permits and Licensing System
BPM	Business Process Management
BPO	Business Process Outsourcing
BUB	Bottom-Up Budgeting
CADT	Certificate of Ancestral Domain Title
CAFFMACO	Cavite Farmers Feed Milling and Marketing Cooperative
CA-LA	Cavite-Laguna
CAR	Cordillera Administrative Region
CARP	Comprehensive Agrarian Reform Program
CARPer	Comprehensive Agrarian Reform Program Extension with Reforms
CAVITEX	Manila-Cavite Expressway
CavSU	Cavite State University
CBD	Commercial Business Districts
CBMS	Community Based Monitoring System
CCA	Climate Change Adaptation
CCW	Center/Cluster-Corridor-Wedge
CDP	Comprehensive development plan
CeC	Community e-Center
CHD-DOH	Center for Health Development-Department of Health
CHED	Commission on Higher Education
CLOA	Certificate of Land Ownership Award
CLUP	Comprehensive Land Use Plan
COA	Commission on Audit
COD	Chemical Oxygen Demand
CompR	Completion Rate
CPP	Communist Party of the Philippines

CSC	Civil Service Commission
CSO	Civil Society Organization
CSR	Cohort Survival Rate
CVS	Crime Victimization Survey
DA	Department of Agriculture
DAO	Department Administrative Order
DAR	Department of Agrarian Reform
DBM	Department of Budget and Management
DENR	Department of Environment and Natural Resources
DENR-EMB	DENR-Environmental Management Bureau
DepEd	Department of Education
DILG	Department of Interior and Local Government
DILP-CED	DOLE Integrated Livelihood Program towards Community Enterprise Development
DOF	Department of Finance
DOH	Department of Health
DOLE	Department of Labor and Employment
DOLE-CBEP	DOLE's Community Based Employment Program
DOST	Department of Science and Technology
DOST-NCC	DOST-National Computer Center
DOT	Department of Tourism
DPWH	Department of Public Works and Highways
DRRM	Disaster Risk Reduction and Management
DRRMC	Disaster Risk Reduction and Management Council
DRRMO	Disaster Risk Reduction and Management Office
DSL	Digital Subscriber Line
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
EBPLS	Electronic Business Permit and Licensing System
ECC	Environmental Compliance Certificates
ECCD	Early Childhood Care and Development
EcoZones	Economic Zones
EFA	Education for All
eLGU	Electronic Governance in Local Government Unit
ENR	Environment and Natural Resources
EO	Executive Order
EP	Emancipation Patent
eRPTS	Electronic Real Property Tax System
FDP	Full Disclosure Policy
FLECO	First Laguna Electric Cooperative, Inc.
FMD	Foot and Mouth Disease
FMR	Farm-to-Market Roads
FTE	Full-Time Employees
GAD	Gender and Development
GDP	Gross Domestic Product
GIFMIS	Government Integrated Financial Management Information System
GIS	Geographic Information System
GRDP	Gross Regional Development Product
GSIS	Government Service Insurance System
GWh	Gigawatt hours
HANDA	Hazard Notification, Dissemination and Awareness
HDPRC	Human Development and Poverty Reduction Cluster
HEI	Higher Education Institution
HELP-ME	Health, Education and Training, Livelihood Prevention, Protection and Prosecution and Monitoring and Evaluation
HIV/AIDS	Human Immunodeficiency Virus Infection /Acquired Immunodeficiency Syndrome

HLURB	Housing and Land Use Regulatory Board
HVAC	Heating, Ventilation and Air Conditioning
IA	Internal Audit
IBM	International Business Machines
iBPAP	Information Technology and Business Process Association of the Philippines
ICON4D	Information Communicators Network for Development
ICRM	Integrated Coastal Resources Management
ICS	Internal Control Systems
ICT	Information and Communications Technology
IEC	Information, education and communication
iGovPhil	Integrated Government Philippines
IP	Indigenous People
IPSP	Internal Peace and Security Plan
IRA	Internal Revenue Allotment
ISF	Informal Settler Families
ISO	International Organization for Standardization
IT	Information Technology
ITP	Integrated Transformation Program
IWRM	Integrated Water Resources Management
JICA	Japan International Cooperation Agency
LAD	Land Acquisition and Distribution
LCEs	Local Chief Executives
LED	Local Economic Development
LEDCI	Local Development and Competitiveness Index
LGPMS	Local Government Performance Management System
LGU	Local Government Unit
LGUIDS	LGU Information Dissemination System
LLDA	Laguna Lake Development Authority
LMS	Land Management Sector
LPOC	Local Peace and Order Councils
LRT	Light Rail Transit
LSPU	Laguna State Polytechnic University
LTO	Land Transportation Office
LWUA	Local Water Utilities Administration
MDG	Millennium Development Goals
MERALCO	Manila Electric Company
MfDR	Managing for Development Results
MRCOS	Mobile Revenue Collection Officers System
MRF	Material Recovery Facilities
MSED	MSME Development
MSME	Micro, Small and Medium Enterprise
MW	Megawatts
NAIA	Ninoy Aquino International Airport
NAPC	National Anti-Poverty Commission
NAT MPS	National Achievement Test Mean Percentage Score
NCR	National Capital Region
NEDA	National Economic and Development Authority
NER	Net Enrolment Rate
NERBAC	National Economic Research and Business Action Center
NGA	National Government Agency
NGP	National Greening Program
NHTS	National Household Targeting System
NIA	National Irrigation Administration
NICP	National ICT Confederation of the Philippines
NNS	National Nutrition Survey

NOAH	National Operational Assessment of Hazards
NPA	New People's Army
NSCB	National Statistical Coordination Board
NSO	National Statistics Office
NWC	Next Wave Cities
OF	Overseas Filipino
OJT	On-the-Job Training
OPI	Over-all Performance Index
OSY	Out of School Youth
PAGIBIG	Pagtutulungan sa Kinabukasan: Ikaw, Bangko, Industriya at Gobyerno
PAMANA	Payapa at Masaganang Pamayanan
PBP	Productivity-Based Pay
PCF	Performance Challenge Fund
PDEA	Philippine Drug Enforcement Agency
PDPFP	Provincial Development and Physical Framework Plan
PESFA	Private Education Student Financial Assistance
PEZA	Philippine Economic Zone Authority
PGIAM	Philippine Government Internal Audit Manual
PhilLARI	Philippine Land Authority Registration Information System
PhilCEC	Philippine Community e-Center
PhilGEP	Philippine Government Electronic Procurement System
Phil-WAVES	Wealth Accounting and Valuation of Ecosystem Services in the Philippines
PIA	Philippine Information Authority
PinoyWISE	Pinoy Worldwide Initiative on Investment, Savings and Entrepreneurship
PITC	Philippine International Trade Center
PMO	Project Management Office
PNP	Philippine National Police
PNR	Philippine National Railways
PPA	Philippine Ports Authority
PPP	Public-Private Partnership
PSA	Philippine Statistical Authority
PSIP	Public-Private Partnership for School Infrastructure Project
PWDs	Persons with disabilities
QMS	Quality Management System
QUEZELCO	Quezon Electric Cooperative, Inc.
R&D	Research and Development
RA	Republic Act
RATE	Run After Tax Evaders
RB	Rural Bank
RBADCs	Resource-Based Area Development Clusters
RCC	Regional Competitiveness Council
RDC	Regional Development Council
RDP	Regional Development Plan
RDRRMC	Regional Disaster Risk Reduction and Management Council
RE	Renewal Energy
RLA	Regional Line Agency
RM	Results Matrix
RORO	Roll On Roll Off
RP	Responsible Parenthood
RPAC	Plan of Action on Children
RPFP	Regional Physical Framework Plan
RPTS	Real Property Tax System
RSBSA	Registry System for Basic Sector in Agriculture
RSCWC	Regional Sub - Committee for the Welfare of Children
SAFDZ	Strategic Agriculture and Fisheries Development Zones

SALIN	Sagana at Ligtas na Tubig
SEA-K	Self-Employment Assistance Kaunlaran
SEP	Sitio Electrification Program
SETUP	Small Enterprise Technology Upgrading
SGH	Seal of Good Housekeeping
SGI	Self-Generating Industries
SIDC	Soro-soro Ibaba Development Cooperative
SLEX	South Luzon Expressway
SLF	Sanitary Land Fills
SLM	Sustainable Land Management
SMP	Service Management Program
SPED	Special Education
SPES	Special Program for Employment of Students
SSS	Social Security System
STAR	Southern Tagalog Arterial Road
STUFAP	Students Financial Assistance Program
SUCs	State Universities and Colleges
SWM	Solid Waste Management
TB	Tuberculosis
TB DOTS	Tuberculosis Directly Observed Therapy
TBs	Thrift Banks
TDA	Tourism Development Areas
TESDA	Technical Education and Skills Development Authority
TSWP	Training for Work Scholarship Program
TVET	Technical Vocational Education and Training
UAE	United Arab Emirates
UCBs	Universal and Commercial Banks
UDHA	Urban Development and Housing Act
UGCs	Urban Growth Clusters
UNICEF	United Nations Children's Fund
US	United States
UWCP	Uniform Website Content Policy
VIP	Verde Island Passage
WLMS	Water Level Monitoring System
WQMA	Water Quality Management Areas

# Introduction

Inclusive growth as a goal connotes the achievement of a sustained growth that is rapid enough to create jobs, draws the majority into the economic and social mainstreams, and continuously reduces mass poverty. After two years of implementation, the Mid-Term Updating of the Regional Development Plan (RDP) 2011 to 2016, provides an opportunity to improve cohesion of all efforts by all sectors – all levels of government, business sector and civil society organizations towards the goal of inclusive growth that seems elusive over the past decades. The updated plan accentuates the reforms and initiatives to realize President Benigno S. Aquino III's "Social Contract with the Filipino People" by 2016. With good governance and anti-corruption as overarching theme, the updated plan focuses on three broad strategies: (1) high and sustained economic growth; (2) provision of equal access to development opportunities across geographic areas and across different income and social spectrum which will ensure that economic growth and opportunities translate to poverty reduction; and (3) implementation of effective and responsive social safety nets to assist those who cannot catch up with the rapid growth.

The plan is divided into the following chapters:

- Chapter 1:** In Pursuit of Inclusive Growth
- Chapter 2:** Macroeconomy
- Chapter 3:** Competitive Industry and Services Sectors
- Chapter 4:** Competitive and Sustainable Agriculture and Fisheries Sector
- Chapter 5:** Accelerating Infrastructure Development
- Chapter 6:** Towards a Resilient and Inclusive Financial System
- Chapter 7:** Good Governance and the Rule of Law
- Chapter 8:** Social Development
- Chapter 9:** Peace and Security
- Chapter 10:** Conservation, Protection and Rehabilitation of the Environment and Natural Resources

Each chapter contains: (1) assessment of policy objectives, desired outcomes and contributory factors that led to the achievement of the goal of rapid, sustained and inclusive growth and the extent and appropriateness of programs, projects and policies implemented since 2011; (2) challenges, constraints and bottlenecks as well as external and domestic risks in attaining rapid, sustained and inclusive growth; and (3) strategic framework that identifies the policies, action plans, programs and activities and necessary structural reforms to address the bottlenecks, constraints and challenges as well as to take advantage of the opportunities to expedite the achievement of sector outcomes for rapid, sustained and inclusive growth.



# I: In Pursuit of Inclusive Growth

This chapter discusses the regional performance and major assessment of efforts, challenges, constraints and strategies to achieve the goals of inclusive growth from the past three years. The assessment highlights the major contribution of the region to the national economy and employment, status of implementing Millennium Development Goals (MDG), poverty incidences; significant infrastructure projects implemented that promoted development; and peace, security and good governance initiatives that facilitated the overall regional context of inclusive growth and development. The existing and emerging challenges and constraints include unstable economic growth, high underemployment, unmet MDG targets and inadequate social protection as well as development pressures to environment and natural resources. The strategic framework for the next three years sets the course in attaining the overall goal of rapid and sustained inclusive growth in line with the national development framework, vision of the region, medium-term goals and spatial development strategy.

## Assessment

Calabarzon region had exhibited positive yet erratic economic growth rates from 2010 to 2012. The region continued to be among the top regions with the biggest share to the national economy and main contributor to the growth of the gross domestic product (GDP). The medium-term target of growing sustainably by 5.0 to 7.0 percent was achieved except for 2011 when the gross regional domestic product (GRDP) dipped from a high of 11.7 percent (2009 to 2010) to 1.7 percent (2010 to 2011). Manufacturing and construction subsectors, which comprised about 57.0 percent of the regional economy, primarily contributed the decline of regional from 2010 to 2011. The manufacturing sub-sector exhibited slower growth rate of 0.3 percent, while the construction sub-sector registered negative growth rate at -3.2 percent. Meanwhile, from 2011 to 2012 all the economic sectors grew at a faster rate. The following sub-sectors performed well in 2012: construction (23.5 percent), financial intermediation (11.1), public services (7.0), manufacturing (5.9 percent) and fishery subsector (3.9 percent).

From 2010 to 2012, employment increased from 4.49 million to 4.75 million, or about 260,000 additional employed persons in the region. Moreover, unemployment rate in the region remained single-digit from 2010 to 2012 with an average rate of 9.4 percent, or about 601,000 unemployed persons. In 2011, the regional unemployment rate was highest at 9.7 percent and declined significantly to 8.9 percent in 2012. On the other hand, underemployment rate continued to be high at an average of 17.7 percent during the period.

In terms of achieving the Millennium Development Goals (MDG) by 2015, the region still has low probability on subsistence incidence, gender parity, nutrition and health incidences. Meanwhile, halving the proportion of population below the national poverty threshold has medium probability. The region had exceeded the MDG targets in terms of elementary cohort survival rate (84.7), completion rate in elementary education (81.0); household with sanitary toilet facilities (83.8); and households with safe drinking sources (86.5).

Various infrastructure projects completed that facilitate, support and sustain development in the region include (1) Manila-Cavite Toll Expressway R-1 Extension; (2) SLEX Toll Road 3; (3) Marikina Infanta Road; (4) Ternate-Nasugbu Road; and (5) Candelaria Bypass Road. These helped reduced travel time and logistics cost of moving people, products and services and supported production and tourism activities in the region. On-going major roads and expressways under the public-private partnership school projects were initiated in the region as well as information and communications technology infrastructures.



For the past years, the peace and security situation in the region remained favorable for socio-economic activities. Armed groups no longer pose threats to the internal security of the region. This favorable situation is also complemented by various programs to promote effective and transparent governance such as the seal of good housekeeping and performance challenge fund for LGUs; results-based performance management system; and other systems to facilitate management, budgeting and procurement services.

Interventions that improved conservation, protection and rehabilitation of natural resources implemented include intensified and higher target goals in support of the National Greening Program and implementation of DRRM Act.

## Challenges

Sustaining economic growth has been a problem for the region as its economy is vulnerable to adverse external factors affecting employment and development programs. In terms of major industry groups, adverse external factors include: heavy reliance of the industry sector to export-based market and volatile exchange rates; dependence of the on-the-rise IT/BPM industry to performance of foreign markets and susceptibility to market shocks and uncertainties; and impacts of climate change to the agriculture sector.

Efforts to increase investments particularly in agriculture, industry and services and in areas with no comparative advantages such as low market size, low skilled labor, inadequate infrastructure, among others remained to be a challenge. Moreover, the economic integration of the countries under the Association of Southeast Asian Nations (ASEAN) by 2015 poses as a challenge if the economic sectors are not equipped to the possible impacts of the integration.

Though the regional unemployment rate maintained single-digit rate amidst influx of migrants, the underemployment rate remained high in the region. Achieving MDG targets with low probability of achievement persisted to be a major challenge. These include participation rate in elementary education, elementary cohort survival and completion rates, under-five mortality rate, percentage of fully immunized children, maternal mortality rate, contraceptive prevalence rate, and TB case detection rate. On the other hand, regional indicators having medium and high probability of achievement need to be sustained and improved by 2015 and beyond.

Safety nets for the vulnerable sectors are inadequate. The increasing cost of education prevented some youth in pursuing technical or higher education thus contributing to the proportion of the population that does not possess the required human capital requirements of industries. Far-flung areas and small island municipalities have poor infrastructure, discouraging potential investors. The economic gains of the region also are not translated to better quality of life as poverty incidence stagnated from 2009 to 2012.

The urbanizing region offer better quality of life and opportunities which attract migrants from nearby regions. Migration poses both positive and negative consequences in terms of employment and provision of social services. Some additional human pool from nearby regions as well as people seeking for better jobs and life end up underemployed because of the mismatch between the knowledge and skills required by the industries and economic activities and the knowledge and skills of the workforce available in the region.

Aside from the pressure of providing adequate social services and gainful employment to the growing population in the region, the stress on land and natural resources continued to be major development challenge. Government institutions, the private sector and the communities have to fully operationalize the mainstreaming of DRR-CCA in their operations to mitigate the impacts of disasters and climate change.



## Strategic Framework

The region will continue to endeavor inclusive and sustained growth towards achieving its vision of becoming a global economic and livable region and the realization of PNoy's Social Contract with the Filipino People. Thus, the region will continue to contribute in the attainment of the medium-term plan outcomes of (1) high, sustained and inclusive economic growth; (2) provision of equal access to development opportunities; and (3) delivery of social safety nets.

### National Development Framework

To attain the overall goal of the plan, the region needs to intensify its efforts to increase investments needed to attain and sustain rapid growth. This shall be done by boosting the competitiveness of productive sectors where the region has comparative advantage such as in agribusiness, manufacturing and logistics, services such as information technology-business processing management (IT-BPM) and creative industries as well as improving the access to the needed financing. Competitiveness shall be enhanced by improving the education and skill set of the workforce, increasing connectivity through infrastructure and the introduction of the relevant technology and innovations, and setting conducive policies for the attainment of globally competitive regional atmosphere. Macroeconomic stability is also needed to encourage consumer optimism and business confidence. Fiscal prudence and monetary stability also directly decrease the cost of capital, thereby reducing the cost of financing.

Social services and protection is a necessary component to ensure that those who are less capable to participate in the growth process are still able to enjoy basic goods and services essential to live decent lives. Moreover, the growth process may be accompanied by structural transformation. Those hurt by the process must be covered by social insurance to ensure that they are able to cope with the transition. All these policies and strategies will be anchored on a platform characterized by good governance, sustained efforts towards national security and peace and ecological integrity.

### Regional Development Goal

The specific socio-economic targets to realize the medium-term outcomes include: (1) sustaining economic growth by keeping GRDP growth targets within 5.5 to 7.6 percent from 2013 to 2016 which shall enable the economy to generate employment; (2) maintaining regional employment rate within 8.6 to 9.4 percent while underemployment rate is aimed to be kept below 17.5 percent until the end of the plan period; and (3) intensifying efforts to achieve MDG targets focusing on lagging provinces and indicators with low probability of achievement.

From 2013 to 2016, the region is expected to grow from 5.5 to 7.6 percent (Table 1.1). The projected GRDP growth rates by sector for the next three years considered the (1) impacts of the 2015 ASEAN Economic Community, (2) rise of the service sector as one of fastest regional growth drivers, (3) the pipelined major infrastructure projects to be initiated before the end of the planning period, (4) consumption impetus due to the growing urban population and overseas Filipino-dependent families and (5) boost in the government services due to the anticipated 2016 national election.



**Table 1.1 Calabarzon GRDP Targets, 2013 to 2016**

Industry	2013		2014		2015		2016	
	Low	High	Low	High	Low	High	Low	High
<b>GRDP</b>	5.5	6.5	5.7	6.7	6.2	7.2	6.6	7.6
<b>AHFF</b>	2.7	3.7	2.9	3.9	3.0	4.0	3.2	4.2
<b>Industry</b>	4.5	5.5	4.7	5.7	5.1	6.1	5.5	6.5
<b>Services</b>	8.0	9.0	8.2	9.2	8.7	9.7	9.0	10.0

Employment rate is projected to increase by 2.8 to 3.0 percent annually from 2013 to 2016. The targeted regional unemployment rate for the next three years is projected to be within 8.6 to 9.4 percent. Meanwhile, average annual underemployment rate is aimed to be kept below 17.5 percent until 2016 (Table 1.2).

**Table 1.2 Calabarzon Employment Targets, 2013 to 2016**

Indicator	Target (In Percent)
<b>Average annual unemployment rate</b>	8.6 to 9.4
<b>Average annual underemployment rate</b>	Less than 17.5

## Major Strategies

The major strategic policies for the next three years toward inclusive growth are focused on enhancing the regional economic competitiveness, bridging labor supply and demand gaps and narrowing socioeconomic disparity in the region. Specifically, these strategies will involve the following:

- continuous enhancement of regional competitiveness as a global business hub;
- build up adoption of knowledge-based industries and information exchange to spur innovation and research and development efforts;
- enhancement of skills and human resource capabilities in the region by tying-up human resource development to industry, R&D priorities and concerns; and
- reduction of socio-economic disparity

These strategies will be implemented under the overarching concern of intensifying efforts to harmonize regional development objectives while maintaining ecological integrity, sustaining local governance capacities, and escalating multi-stakeholder partnerships through volunteerism strategy.

## Sectoral Strategies

### *Macroeconomy*

Stabilize regional macroeconomy by sustaining annual economic growth targets within 5.5 to 7.6 percent during the plan period that will generate quality employment and continuously enhance regional competitiveness as a global business hub

### *Industry and Services*

- Work for growth rates from 2013 to 2016 of the industry sector to be within 4.5 to 6.5 percent and of the services sector within 8.0 to 10.0 percent
- Address issue of concentration of exports on few product and markets by further enhancing product quality, promotion of product diversification, introducing and sustaining improvements in technological materials, manufacturing processes and equipment



- Enhance skills and human resource capabilities in the region by boosting linkages among industries and knowledge-based institutions; and continuing capacity building and education for the labor force to compete directly with other world class companies
- Improve governance and enabling business environment
- Focus interventions on key growth drivers and development prospects of the region
- Intensify support to MSMEs and expand industry cluster development
- Provide adequate infrastructure support in the region
- Develop and strengthen regional tourism branding/ identity
- Harness and maximize potential in regional and global integration
- Improve supply chains of basic and prime commodities

#### ***Agriculture and fishery subsector***

- Achieve growth rate of the AHFF sector from 2013 to 2016 to be within 2.7 to 4.2 percent
- Increase agricultural productivity and value-added by improving farmers and fisherfolk's access to credit, land tenure, technology and intensifying research, development and research
- Improve infrastructure to support agricultural activities such as farm-to-market roads and bridges, post-harvest facilities and irrigation systems
- Improve resilience of agricultural communities by promoting and adopting climate change-sensitive technologies; establishing climate-resilient infrastructure and food production systems; incorporating natural hazards and climate risk in the agriculture and fishery component of the comprehensive land use plan or CLUP; and providing support services to vulnerable communities
- Enhance linkages of complementary agricultural industries within and outside the region

#### ***Financial system***

- Efficiently mobilize financial resources in the region thru policy, operational and support interventions both from private and public sources
- Continue to build, strengthen and establish financial systems and institutions in the region to create more financial access points that deliver financial services at affordable cost to all segments of society
- Strengthen and improve enabling environment for the financial system

#### ***Infrastructure development***

- Improve connectivity among centers and wedges while enhancing role of corridor cities and municipalities by promoting intermodal transport system and ensuring quality information, communications and technology infrastructure
- Ensure that all beneficiaries and stakeholders in Calabarzon have equal access to infrastructure services such as quality and adequate hospitals, schools, solid waste, water supply and irrigation facilities. On fully implementing electrification programs, energy-efficient power sources must be integrated to rural electrification projects while developing cost-efficient and energy-efficient technologies for residential, commercial and industrial consumption.
- Strengthen linkage of Calabarzon's infrastructure development with appropriate and effective spatial and DRRM and CCA strategies that will increase resiliency to climate change and natural disasters

#### ***Good governance, peace, security and justice***

- Further mainstream business processes and frontline services
- Facilitate efficient use of modern technology for e-based government services
- Improve statistical system and promote evidence-based planning and decision-making
- Improve involvement of CSOs in development planning processes
- Sustain local governance capacities by escalating multi-stakeholder partnership through volunteerism strategy



- Establish and operationalize regional government center

### ***Social development***

- Reduce socio-economic disparity by directing poverty-reduction measures to the most vulnerable sectors of the society
- Develop and implement social programs addressing concerns on greater equity, better access to services and facilities
- Education, training and culture
  - Ensure that every Filipino has access to complete basic education
  - Promote effective and efficient delivery of basic education services via quality teaching force
  - Ensure that every Filipino graduate of complete basic education through the K to 12 Program and prepared for higher education, employment and entrepreneurship
  - Align higher education institutions and technical vocational education and training programs with regional development goals and industry needs
- Health and nutrition
  - Ensure equitable access to primary health and nutrition services through a responsive and universally accessible health care system and the achievement of better health outcomes in the region
  - Develop accurate and timely health and nutrition information system that will enable individuals, families and communities manage their health and guide the government to craft enabling policy agenda
  - Improve resiliency of the region against health security risks and threats
- Population and social protection
  - Implement RH Law and increase access to family planning methods
  - Accelerate programs that will promote gender sensitive industrialized region
  - Set up social protection convergence mechanisms at all levels
  - Intensify broader access to social services
  - Accurately track regional poverty statistics
  - Continuous investment and protection on children
  - Strict implementation of housing related laws and ordinances
- Asset Reform
  - Create a Task Force on Problematic Landholdings Land Acquisition and Distribution
  - Resolve landowners' protests/filed applications for exemption and conversion
  - Regularly conduct dialogues/follow-ups with Landbank of the Philippines, DENR-Land Management Services
  - Fast-track registration of CLOAs/ EPs by the Philippine Land Registration Authority Information System (PhiLARIS)
  - Intensify region-wide orientation on agrarian reform among municipal/city mayors, local planners and assessors
  - Implement and intensify capability building development on entrepreneurship

### ***Promoting and sustaining peace and security in the region***

- Permanent and peaceful closure of all armed conflicts
  - Sustain conducive peace and order condition in the region
  - Implement reforms in the security sector
  - Sustain safer and more secured environment conducive to regional development
  - Intensify efforts to enhance internal stability mechanisms
- Support modernization of the security sector
  - Promote the establishment of human trafficking database and intensify campaigns on anti-human trafficking
  - Transform communities to be resilient against disasters and risks
  - Strengthen LGUs' capabilities on disaster management and emergency response



### ***Environment and natural resources***

- Intensify efforts to harmonize regional development objectives while maintaining ecological integrity
- Achieve the regional target of 102,560 hectares reforested through the National Greening Program (NGP) and various forest and mangrove management programs
- Improve environmental quality and healthier environment and manage equitable use of mineral resources
- Maintain standard of air quality especially among urban areas and rehabilitate polluted water bodies along with water quality monitoring system
- Fully implement of RA 10121 and RA 9729
  - Mainstream land use, coastal and marine zoning as well as coastal use/water use strategies, DRRM and CCA into local development plans
- Provide incentives for renewable energy research and development and green technology innovations
- Implement DRRM programs
  - Prepare flood control master plan
  - Design and construct flood-proof structures and infrastructure and additional flood control facilities
- Promote green communities parallel to the 8 Gs of development (green architecture, green urbanism, green technology, green energy, green infrastructure, green furniture, green interior design and green sustainable development)

## **Spatial Strategy**

To ensure the provision of equal access to development opportunities across geographic areas, the region would continue to pursue the implementation of the Calabarzon spatial development strategy. The overall spatial development strategy employs the Center/Cluster-Corridor-Wedge (CCW) planning approach seeking to direct and stimulate development and growth from west to east and to strengthen north-south development and access corridors. The CCW reflects the polycentric urban character of the region. It provides opportunities to facilitate development in the different areas of the region by improving the Regional Physical Framework Plan (RPFP) 2004 to 2030 approach which focuses on the dichotomy between Urban Growth Clusters (UGCs) and Resource-Based Area Development Clusters (RBADCs).

Centers are the nucleus of economic activities in the region characterized by high population densities connected by congregated built infrastructure and multimodal transportation system. Identified as the region's centers are the cities of Antipolo in Rizal, Calamba in Laguna, Dasmariñas in Cavite, Batangas in Batangas, and Lucena in Quezon.

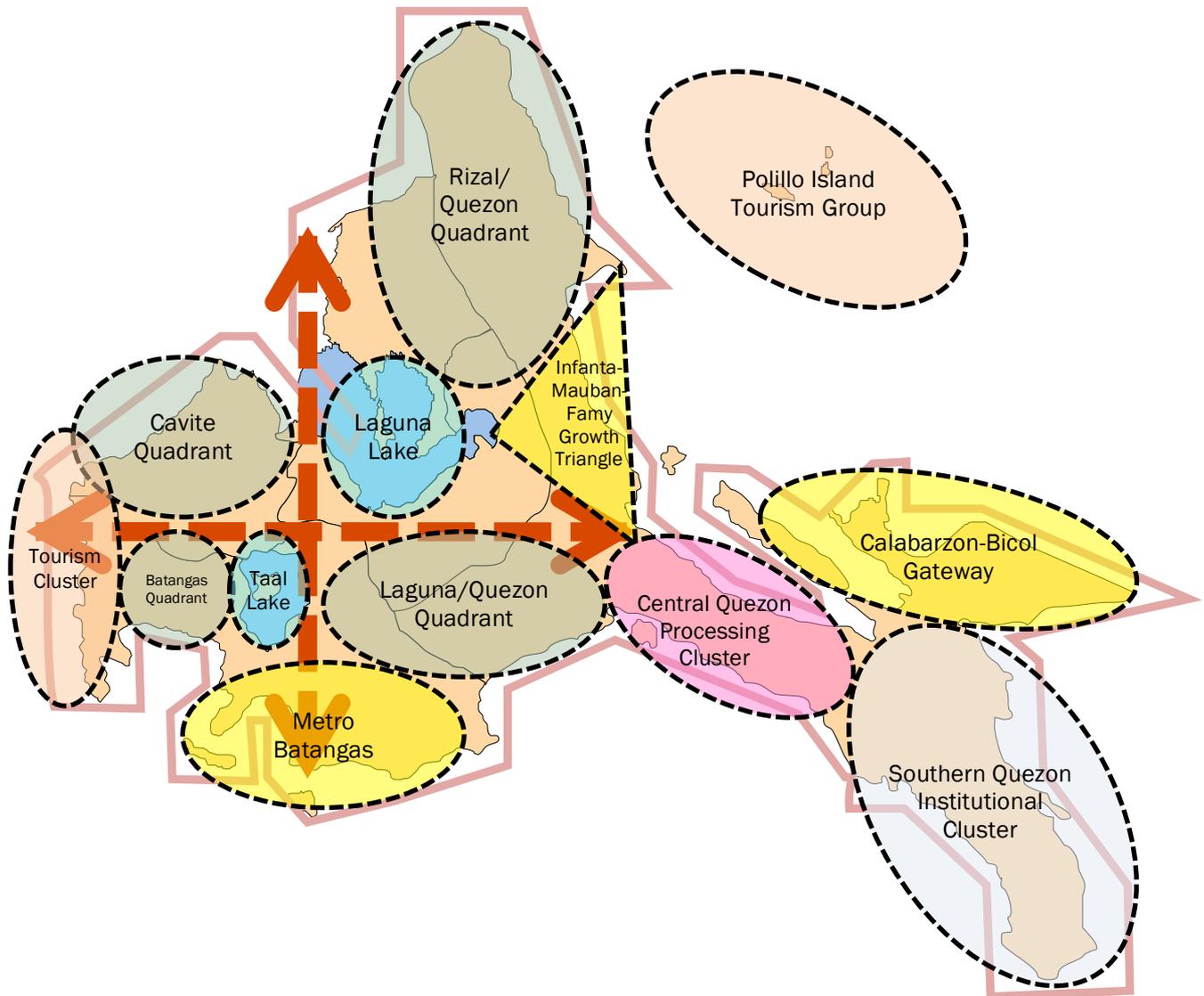
Corridors are primarily transportation arteries linking centers to centers. These are accessible and connected areas which may serve as transit stations, interchange, established neighborhood or general corridor areas. The potential of transit station areas qualify to be the appropriate locations for the significant new growth. The identified corridor areas in the region are: Rodriguez, San Mateo, Cainta, Taytay, and Angono in Rizal; City of San Pedro, City of Biñan, City of Sta. Rosa, City of Cabuyao, Los Baños, Bay, Sta. Cruz, and City of San Pablo in Laguna; City of Bacoor, City of Imus, Kawit, General Mariano Alvarez, Carmona, Noveleta, Cavite City, Tagaytay City, Silang, Rosario, General Trias, Tanza, and Trece Martires City in Cavite; San Jose, Bauan, Lipa City, Sto. Tomas, Malvar and City of Tanauan in Batangas; Tiaong, Candelaria, Sariaya, City of Tayabas, and Pagbilao in Quezon.

The tracts of land between corridors are the wedges. These have denser population relative to their distance from the centers. It is characterized by limited amount of moderate and high density housing and supporting facilities and services including green corridor, protection and



production areas. The remaining municipalities in the region serve as wedges. Figure 1.1 illustrates the centers/ clusters, corridors and wedges in Calabarzon through the quadrant and cluster framework concept.

**Figure 1.1 Calabarzon Quadrant and Cluster Framework Concept (Courtesy of Palafox Associates)**



Through the CCW approach, the following strategies will be pursued:

(1) 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; existing urban areas including the cities of Batangas, Cavite, Lucena and Tagaytay will be enhanced to catalyze the influx of urban development from west to east and balance the location of urbanized areas of the region.



(2) Corridor areas shall be developed along the existing major transport routes in the Region such as the Infanta-Mauban-Famy Growth Triangle and the Mauban-Lucena Growth Corridor. These emerging growth centers will present viable opportunities for economic development in the eastern Pacific portion of the Calabarzon.

Growth centers and potential corridors are identified as “counter magnets” to decongest Metro Manila and address impacts of urban expansion. The provision for growth centers and corridors shall enhance the liveability and global competitiveness of the region and enable achievement of efficient forms of peripheral growth. Some strategies include:

- Improving mobility and access infrastructure by linking roadways, ports and airports to improve regional, international, and global competitiveness
- Enabling development in the information and communications technology in growth centers
- Renewing and redeveloping urban areas that have significant potential for development
- Redeveloping and remediating brown fields, or formerly abandoned or underused lands, such as former military bases and industrial areas
- Creating urban development corridors for urban areas and green wedges, or areas between these corridors dedicated for agriculture, forests and ecotourism

(3) 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 development. Moreover, green wedges of agri-tourism, agriculture, forests, and leisure areas will act as ecological transition areas and boundaries for various development corridors. Among these are the coastal areas of Laguna de Bay, Taal Lake and the east coast in which their potentials shall be for waterfront urban development, tourism, and transportation system.

The spatial framework addresses the imbalance of development wherein the focal point of development is very pronounced in the western part of the region. Thus, east to west connections shall be strengthened to open opportunities especially for eastern waterfront and logistics development and eventually harnessing potentials for inclusive growth and development across the region. To facilitate east to west and north to south connections the following strategies shall be pursued:

- Strengthen and improve existing infrastructure that connects and interconnects the different areas of the region
- Develop and improve major transportation links in the region: (1) Real-Famy-Antipolo-Manila Corridor; (2) Mauban-Santa Cruz-Manila Corridor; (3) Mauban-San Pablo-Sangley Point Corridor; and (4) Mauban-Lucena-San Juan, Batangas Corridor. Figure 1.2 presents the proposed east-west connections.
- Enhance role of Manila to Batangas Economic and Industrial Corridor
- Link South and North Luzon Expressway to bolster access and flow of goods and services from the northern and central Philippines to the Calabarzon region
- Develop ports along the Pacific coast that will make trade to and from the Philippines more accessible and more cost-efficient to the Americas compared to Manila, Singapore and Hong Kong and other sea cargo vessels and ocean freight liners

In order to ensure the realization of the vision of the region, the following principles and strategies must be adhered to the principles for liveable towns and cities: (1) design on a human scale; (2) provide choices and variety; (3) encourage mixed-use development; (4) preserve urban centers; (5) vary transportation options; (6) build vibrant public spaces; (7) create a neighborhood identity; (8) protect environmental resources; (9) conserve landscapes; and (10) design valuable urban landscapes.



Figure 1.2 Calabarzon Proposed East-West Connections (Courtesy of Palafox Associates)





## II: Macroeconomy

This chapter's sector outcome is to achieve stable macroeconomy. To realize this objective, there is a need to: (1) achieve sustainable fiscal sector; (2) achieve monetary policy supporting non-inflationary growth; and (3) support resilient external sector. The broad objective of macroeconomic policy is to contribute to economic and social well-being in an equitable and sustainable manner.

Macroeconomic policy decisions are made at the national level. However, the region's role in monitoring as well as in addressing the determinants of macroeconomic stability is crucial. Price stability and external balances affect macroeconomic stability through their impact on investment decisions and performance of the industry and services sectors. Likewise, a stable and sustainable financial sector helps in improving the business environment of the region as it provides for well-functioning markets and favorable domestic and external demand conditions.

### Assessment

Calabarzon region is one of the Philippines' big three contributors to the economy in terms of share to the gross regional domestic product (GRDP) with the National Capital Region (NCR) and Central Luzon. More than 17.4 percent of the national economy is from Calabarzon and this has contributed as much as 1.99 percent to the growth of the gross domestic product (GDP) during the past three years.

The regional economy is composed mainly of the industry sector, accounting more than 62.0 percent, followed by the services sector at 31.1 percent and agriculture at 6.6 percent. In terms of share to the national economy, Calabarzon remained to be the industrial powerhouse of the country having the largest share of more than one third of the total industry. Contributing 10.0 percent in terms of regional share to total agriculture, Calabarzon is next to Central Luzon focusing on cultivation of high value commercial and industrial crops. In terms of services, the region contributed about 10.0 percent to the total national services, far from the NCR's lion share of more than 50.0 percent.

From 2010 to 2012, regional GRDP growth rate was positive although fluctuating. The highest regional growth rate was registered in 2010 at 11.7 percent. It then declined in 2011 at 1.7 percent (Table 2.1) and rebounded in 2012 to 7.0 percent. These figures showed that the regional economy was able to exceed its growth target in 2010, achieve its growth target in 2012, but was way below its target in 2011.

**Table 2.1 Gross Regional Domestic Product Growth Rate, Calabarzon 2010 to 2012**  
In Percent

Industry	2010	2011	2012
<b>GRDP</b>	11.7	1.7	7.0
<b>Agriculture, Hunting, Fishery and Forestry</b>	7.7	1.2	2.5
<b>Industry</b>	15.3	0.1	6.9
<b>Services</b>	5.9	4.9	8.0

Source: National Statistical Coordination Board

The high rebound of the 2010 economy was due to the recovery of the agriculture, fishery, forestry and industry sectors from the global financial crisis and onslaught of Typhoon Ondoy.



Meanwhile, the 2011 regional economy contracted due to the decline in all sectors. Among the subsectors that exhibited significant decline in growth are fishing (-5.7), construction (-3.2) and manufacturing (0.3). The 2012 economy rose by more than 5 percentage points. The sectors that contributed to the growth were construction (23.5), financial intermediation (11.1), public services (7.0) and manufacturing (5.9). Trade and real estate continued to be strong drivers in the industry sector.

As the most populous region in the country, Calabarzon has the highest share of about 13.6 percent to the national labor force level from 2010 to 2012. The industrial and urbanized nature of the region had contributed to the movement of people searching for better quality of life and employment opportunities. The effect of migration to the regional employment, though lacking of better measuring tool, brought additional high and low-skilled workers as well as high unemployment and underemployment rates. Industries which employed more than 64.0 percent of the regional employed population in 2012 were wholesale and retail trade (907,000), manufacturing (814,000), agriculture, hunting and forestry (602,000), transport and storage (383,000), and construction (355,000).

Average annual unemployment rate during the period was 9.5 percent, which is 2.2 percentage points higher than the national rate. The annual unemployment rate during the period was within the regional target of maintaining single-digit unemployment rate.

The major dip in the economy from 2010 to 2011 produced only 0.2 percentage point increase in unemployment rate. In fact, the region has the highest employment generated in 2011 compared to the national data. The annual unemployment scenario in the region improved in 2012 registering about 8.9 percent. Annual underemployment rate in the region averaged at about 17.7 percent, lower than the national average of 19.8 percent (Table 2.2).

**Table 2.2 Employment Indicators, Calabarzon, 2010 to 2012**

Indicator	2010	2011	2012
Employment Level ('000)	4,493	4,666	4,753
Labor Force Participation Rate (in percent)	63.6	64.7	64.40
Employment Rate (in percent)	90.5	90.3	91.1
Unemployment Rate (in percent)	9.5	9.7	8.9
Underemployment Rate (in percent)	17.4	17.9	17.9

Source: National Statistics Office - Labor Force Survey

Regional poverty incidence among families stayed below the national average, having increased by 0.8 percentage points in the first semester of 2009 and 2012, based on the poverty incidence data released by the National Statistical Coordination Board. Poverty incidence among population, on the other hand, remained unchanged at 14.3 percent. Higher poverty incidences of Batangas and Cavite in 2012 were not compensated by the improved condition of the other three provinces.

Despite higher employment rates from 2010 to 2012, poverty and subsistence incidences in the region still increased (Table 2.3). This can be explained by the high percentage of laborers and unskilled workers usually in agriculture, manufacturing and construction sectors, which is about 23.8 percent; and high underemployment rate. The latter reason can be attributed to the inadequate supply of gainful employment as own account workers (self-employed and employer) constituted a third of the regional employed force. High underemployment rate also may imply high incidence of informal sector activity in the region.

The region boasts a 3.6 percent inflation rate, much lower than the 4.1 percent recorded in Region III, though only slightly lower than the national average of 3.7 percent. Recent data from



NSO show a further decrease in the region's inflation rate recording 1.9 percent in August 2013 compared to the same period the previous year.

**Table 2.3 Poverty Indicators, Calabarzon, First Semester 2009 and 2012**

Indicator	2009	2012
Poverty incidence among families	10.8	11.2
Poverty incidence among population	14.3	14.3
Subsistence incidence among families	3.2	3.9
Subsistence incidence among population	4.5	5.4

Source: National Statistical Coordination Board

The region's contribution to the rapid and sustained growth in the macroeconomic sector includes monitoring and maintenance of low and stable inflation that is within the 3 to 5 percent annual average with the support of good investment decisions. It also promoted liveability through strengthening of research and development and continuous provision of training for workers on new business processes and product innovations. These were aimed at attracting adequate human capital with technological competencies needed for high road production as well as to improve the region's competitiveness.

## Challenges

Though the region is the second highest contributor to GDP and growth rates, there is still a need to meet the growth rates and employment targets for the remaining planning period, including the need to maintain stable inflation rate. Moreover, there is also a need to address high underemployment, high share of educated sector among the unemployed, and the perceived inadequate increase in the minimum wage adjustments that continue to persist.

The recent global financial crisis, large swings in economic activity, unsustainable debt levels and volatility in foreign exchange rates and financial markets continue to pose challenges to the region's economy, particularly the export-oriented manufacturing industry. Consequently, businesses are reluctant to invest, given unfavorable domestic and external demand conditions, low capacity utilization rates, and an uncertain economic outlook.

## Strategic Framework

To achieve the overall goal of inclusive growth, the region needs to revisit current labor policies to fully implement and integrate the labor reform package and strengthen and make more effective the advocacy for the passage of urgent and priority fiscal bills.

To reduce poverty and increase employment, there is a need to rehire displaced workers coming from the industry and services sector, retool programs, trainings, and human resources related services for workers. Because unemployment and underemployment are the main causes of poverty, a critical task is to maintain the economy as close as possible to full employment. This target implies that in developing countries, employment in the formal sector at least keeps up with labor force growth and rural-urban migration.

Continued and sustained economic growth is not only a precondition for employment generation, but also provides fiscal space to address other critical social concerns, such as access to health services, sanitation, and safe drinking water, among others.



## III: Competitive Industry and Services Sectors

The proximity of Calabarzon region to Metro Manila has been an advantage for the increase in the level of development and urbanization. Aside from the increasing real estate development and existing manufacturing industries, high-tech industries, and economic development zones, the region is also considered as a major Information Technology and Business Process Management (IT-BPM) hub because of the region's rich manpower resources and the significant presence of ICT infrastructures. To achieve the sector goal of a "globally competitive and innovative services sectors that contribute to inclusive growth and employment generation," there is a need to realize the following intermediate outcomes: (a) improved business environment; (b) increased productivity and innovative capacity; and (c) enhanced consumer welfare.

### Assessment

Calabarzon's economy is composed mainly of the industry sector accounting to 62.0 percent, followed by the services and agriculture sectors (Table 3.1). In terms of share to the national economy, Calabarzon remained to be the industrial powerhouse of the country having the largest share of more than a third of the country's total industry output. From 2010 to 2012, the industry and services sectors growth rate of the region was positive. The industry sector contributed a share of an average of 61.6 percent of the GRDP mainly coming from the manufacturing subsector (53.5 percent). It strongly grew from 0.1 percent in 2010 to 2011 to 6.9 percent in 2011 to 2012.

**Table 3.1 Gross Regional Domestic Product: Industry and Services Sector Value (In PhP 000) and Growth Rates (In Percent) Calabarzon, 2010 to 2012, At constant 2000 prices**

Sector/Year	2011	Growth Rate	2012	Growth Rate
<b>Industry Sector</b>	629,125,013	0.1	672,757,543	6.9
a. Mining and quarrying	1,838,350	3.3	1,875,682	2.0
b. Manufacturing	548,548,205	0.3	581,083,857	5.9
c. Construction	40,741,522	-3.2	50,325,256	23.5
d. Electricity, gas and water supply	37,996,936	0.5	39,472,748	3.9
<b>Service Sector</b>	329,178,325	4.9	355,518,964	8.0
a. Transport, storage and communication	67,036,558	3.4	72,296,197	7.8
b. Trade and repair of motor vehicles, motorcycles, personal and household goods	81,438,257	4.4	87,376,119	7.3
c. Financial intermediation	33,513,177	5.3	37,228,829	11.1
d. Real estate, renting and business activities	85,362,809	9.1	93,113,498	9.1
e. Public administration and defense, compulsory social security	12,928,277	0.9	13,832,708	7.0
f. Other services	48,899,248	1.8	51,671,614	5.7
<b>Gross Regional Domestic Product</b>	1,026,046,727	1.7	1,097,720,281	7.0

Source: National Statistical Coordination Board



The increase in the industry sector is mainly due to the high rebound of the manufacturing, construction, and electricity, gas and water supply subsectors. The construction subsector rebounded from a negative growth of 3.2 percent in 2011 to a double-digit growth of 23.5 percent in 2012. The manufacturing subsector accelerated from 0.3 percent to 5.9 percent while electricity, gas and water supply increased from 0.5 percent in 2011 to 3.9 percent in 2012. On the other hand, mining and quarrying experienced a slowdown from 3.3 percent to 2.0 percent during the same periods.

Meanwhile, the services sector in the region consistently contributed to an average of 9.9 percent from 2010 to 2012. It has the highest share in services among the regions except for NCR which provided 51.7 percent in the country's total services output. On the other hand, the services sector contributed an average of 31.9 percent of the regional economy. Its growth almost doubled from 4.9 percent in 2010 to 2011 to 8.0 percent in 2011 to 2012. All the services subsectors registered high growth during the past years especially the financial intermediation, transport, storage and communication, trade and public administration services.

## Employment and Wage

About 85.0 percent of the regional employment is from the services and industry sectors. The region also accomplished 15.0 percent of the national target of 2.9 million for 2011 to 2012. A total of 6,060,711 students/job-seekers were given career and employment coaching for 2012, while 29,480 workers, employers, and students attended the Continuing Labor Education and Employment Seminar from 2011 to 2012. However, a large number of which were laborers and unskilled workers.

From 2010 to 2012, there has been an increase of about 70,000 workers in the industry sector. The manufacturing and construction sub-sectors continued to be main generators of employment. Sixty-four percent of the workers in the industry sector are male (Table 3.2).

On the other hand, the services sector had about 230,000 additional workers from 2010 to 2012. Wholesale and retail trade, transport and storage and accommodation and food service activities composed more than half of the employment in the services sector. Female workers accounted for about 51.9 percent of the service sectors.

**Table 3.2 Employment in Industry and Service Sectors by Sex, Calabarzon 2010 to 2012**  
In Thousands

Sector	Industry			Services		
	2010	2011	2012	2010	2011	2012
Total	1,130	1,158	1,200	2,603	2,766	2,833
Female	405	424	431	1,331	1,401	1,443
Male	726	734	769	1,272	1,365	1,390

**Source: National Statistics Office**

The increase in the employment can be attributed to the strengthening of programs and projects such as employment facilitation, career and employment coaching, and continuing labor education and employment seminar. There was an increase of 9.0 percent in the number of job seekers placed in local employment.

There was a remarkable increase in number of jobs generated, through the DOLE Integrated Livelihood Program towards Community Enterprise Development (DILP-CED), especially in the provinces of Quezon and Rizal in 2012. This is due to strong partnerships with the different



government agencies, civil society organizations and LGUs for convergence interventions; and streamlined procedure of project approval and fund releases.

The highest daily minimum wage in the region in 2012 is PhP 349.50 a day or approximately US\$8.15, far second to NCR's minimum wage at PhP 456.00 per day (Table 3.3). In Calabarzon, the daily minimum wage increased by as much as 6.7 percent, 5.3 percent and 7.8 percent in 2010, 2011 and 2012 respectively. The two-tiered wage policy was introduced in 2012 under Wage Order No. IVA-15 where it sets the: (a) floor wage/minimum wage (Tier 1); and (b) provides guidelines in the implementation of productivity-based pay at the firm level (Tier 2). The floor was set at PhP 255.00 per day, while the Productivity-Based Pay (PBP) suggested range of increase from 5.6 percent to 10.9 percent of the worker's basic pay.

**Table 3.3 Adjustments in Daily Minimum Wage per Industry, Calabarzon, 2010 to 2012**  
In PhP

Industry	2010		2011		2012	
	Daily Amount of Increase	Daily Minimum Wage	Daily Amount of Increase	Daily Minimum Wage	Daily Amount of Increase	Daily Minimum Wage
<b>Non-Agriculture</b>	12.00-	236.00-	17.00	253.00-	2.00	255.00-
	20.00	320.00		337.00		349.50
<b>Agriculture-Plantation</b>	12.00-	216.00-	17.00	233.00-	5.00-18.00	251.00-
	20.00	295.00		312.00		324.50
<b>Agriculture Non-Plantation</b>	12.00-	196.00-	17.00	213.00-	9.00-18.00	231.00-
	20.00	275.00		292.00		304.50
<b>Retail and Service Establishments employing not more than 10 workers</b>	12.00-	148.00-	17.00	165.00-	18.00	183.00-
	20.00	215.00		232.00		250.00

Source: Department of Labor and Employment - Regional Tripartite Wages and Productivity Board

## Investments and Exports

Investments in economic zones (ecozones) in the region showed an increasing trend from 2010 to 2012. From 2010 to 2011, investments grew by 15.1 percent, while from 2011 to 2012, it increased to 6.7 percent. Majority of the investments in ecozones were from the provinces of Laguna (46.1 percent), Batangas (29.7 percent), and Cavite (22.4 percent) (Table 3.4).

**Table 3.4 Total Investments in PEZA Calabarzon, 2010 to 2012**  
In PhP Million

Region/ Province	2010	2011	2012
<b>Calabarzon</b>	98,021.8	112,850.8	120,371.8
<b>Batangas</b>	25,306.1	51,091.5	21,613.5
<b>Cavite</b>	16,060.3	22,605.4	36,946.1
<b>Laguna</b>	56,655.5	33,520.2	61,101.3
<b>Quezon</b>	no available data	1,833.7	no available data
<b>Rizal</b>	no available data	3,800.0	710.9

Source: Philippine Economic Zone Authority



Total approved investments in the region (investments generated from DTI Business Name Registration are not included) increased from PhP 319.213 million in 2010 to PhP 775.24 million in 2011. However, it decreased to PhP 251.080 million in 2012 (Table 3.5). The significant decrease in investments can be attributed to lack of new big investors in the region.

**Table 3.5 Total Approved Investments in Calabarzon, 2010 to 2012**  
In PhP Million

Region/ Province	2010	2011	2012
<b>Calabarzon</b>	<b>319.213</b>	<b>775.242</b>	<b>251.080</b>
Batangas	7.308	11.643	20.450
Cavite	55.720	67.008	44.640
Laguna	251.405	352.376	120.040
Quezon	23.230	303.230	36.050
Rizal	1.500	40.985	29.900

Source: Department of Trade and Industry

Merchandise exports increased from US\$ 39.62 million in 2010 to US\$ 82.74 million in 2012 due to aggressive marketing activities of micro, small, and medium enterprises (MSMEs) (Table 3.6). The provinces of Laguna, Cavite, and Quezon are among the top provinces in the region contributing the highest exports in merchandise.

**Table 3.6 Export Sales Generated from Merchandise Exports**  
Calabarzon, 2010 to 2012  
In US Dollar Million

Region/ Province	2010	2011	2012
<b>Calabarzon</b>	<b>39.623</b>	<b>38.789</b>	<b>82.74</b>
Batangas	1.307	1.162	6.85
Cavite	10.330	7.716	31.22
Laguna	19.142	12.778	21.55
Quezon	1.011	3.404	8.22
Rizal	8.323	13.729	14.9

Source: Department of Trade and Industry

On the other hand, domestic sales increased from PhP 308.19 million in 2010 to PhP 719.34 million in 2012 as aggressive marketing activities and sales monitoring were done mostly from wearables, gifts, and holiday decors and foods. Laguna dominated domestic sales with a share of 48.5 percent, followed by Quezon (17.2 percent) and Cavite (16.2 percent) (Table 3.7).

**Table 3.7 Domestic Sales, Calabarzon, 2010 to 2012**  
In PhP Million

Region/ Province	2010	2011	2012
<b>Calabarzon</b>	<b>308.193</b>	<b>661.63</b>	<b>719.34</b>
Batangas	20.649	54.972	61.85
Cavite	40.77	109.993	133.91
Laguna	157.784	319.208	332.31
Quezon	30.363	66.482	78.21
Rizal	58.626	110.975	113.06

Source: Department of Trade and Industry



## Business Establishments

As of 2011, there were 123,173 listed establishments in the region, of which, 92 percent were micro enterprises. MSMEs generated a total 506,134 jobs in 2011 while large enterprises provided 441,366 jobs. This shows that in 2011, MSMEs contributed 53.4 percent of the total jobs generated in all types of business establishments. Of these, 26.5 percent or 251,208 jobs were generated by micro enterprises; 20.1 percent or 190,549 by small enterprises; and 6.8 percent or 64,377 by medium enterprises (Table 3.8).

**Table 3.8 Number of Establishments and Employment by Province, Calabarzon 2011**

Region/ Province	Number of Establishments				
	Micro	Small	Medium	Large	Total
Calabarzon	114,293	7,805	464	140,118	123,173
Batangas	18,974	1,383	62	278,831	20,512
Cavite	28,074	1,975	150	342,501	30,402
Laguna	25,127	2,079	166	57,085	27,613
Quezon	15,466	684	12	128,965	16,183
Rizal	26,652	1,684	74	53	28,463
Number Total Employment					
Calabarzon	251,208	190,549	64,377	441,366	947,500
Batangas	41,944	31,304	8,485	58,385	140,118
Cavite	61,446	52,285	20,292	144,808	278,831
Laguna	58,899	53,447	23,728	206,427	342,501
Quezon	31,737	14,942	1,675	8,731	57,085
Rizal	57,182	38,571	10,197	23,015	128,965

Source: Department of Trade and Industry - MSME Statistics 2011

The number of product standards adopted increased from 2010 to 2012 by 8.51 percent, from 43 in 2010 to 45 in 2012, which is about 8.5 percent growth. These product standards were applied on products like organic agriculture, building glass, rubber products, adhesive, furniture and textiles, paper, board and pulps, among others.

The number of MSMEs developed and assisted by Department of Trade and Industry (DTI) in the region increased by 19.38 percent from 2010 to 2012 (Table 3.9). About 98 percent of the total establishments are MSMEs, thus increasing productivity and value adding of products. The DTI's assistance to the MSMEs provided greater business opportunities for enterprises.

**Table 3.9 Number of MSMEs Developed and Assisted by DTI, Calabarzon, 2010 to 2012**

Region/ Province	2010	2011	2012
Calabarzon	6,898	3,751	8,557
Batangas	1,027	776	1,934
Cavite	1,219	724	2,025
Laguna	3,497	1,105	2,141
Quezon	633	864	812
Rizal	403	776	1,934

Source: Department of Trade and Industry



## Customer Satisfaction Rating

Public and business satisfaction with public services in the region (measured through reduced number of forms, days, steps accomplished) was stable at 98.0 percent from 2010 to 2012 (Table 3.10). This could be attributed to the streamlined applications procedures and effective service delivery.

**Table 3.10 Customer Satisfaction Rating on Public and Business Satisfaction with Public Services**  
In Percentage of reduced forms, days, steps

Region/ Province	2010	2011	2012
Calabarzon	98.0	98.0	98.0
Batangas	93.0	94.0	95.0
Cavite	100.0	99.5	99.7
Laguna	100.0	100.0	100.0
Quezon	no data available	no data available	no data available
Rizal	no data available	no data available	no data available

Source: Department of Trade and Industry IV-A

To further determine the development outcomes of government interventions on business enterprises, the level of consumer awareness and satisfaction of quality goods and services, and number of patents registered are now being tracked.

## IT-BPM Industry

The region is among the top destinations for the IT-BPM industry in the country. In 2012, the country received a total of US \$ 13.4 billion revenue from this industry, which contributed about 4.0 to 5.0 percent in the national economy. Providing over 772,000 jobs, it is one of the largest private sector job generators in the country. The region has strong advantage in the IT-BPM Industry having numerous educational institutions, collaborative and active stakeholders and leaders, and an area accessible to developers and investors. Some Calabarzon LGUs were included by the Local ICT Council in the top 10 potential areas for IT-BPM.

With only 21,300 current full-time employees (FTEs) in the ICT sector, there is a very huge employment opportunity for Calabarzon. This year, the Business Processing Association of the Philippines (BPAP) and Commission on Higher Education (CHED) launched the 'Service Management Program', a 21-unit tertiary course. CHED provided the funds to start the program in 17 State Universities and Colleges (SUCs) in the country. Teacher's Training Programs were also conducted in Cavite State University (CavSU), Batangas State University (BatStateU) and Laguna State Polytechnic University (LSPU).

Some concerns on the IT-BPM industry in the region:

- Number of qualified people to apply for available jobs in BPO companies
- Slow hiring of qualified applicants, as pointed-out by large IT/BPM companies like IBM and Convergys
- Current external factors such as the weak US Dollar, Euro, and Indian Rupee vis-à-vis Philippine peso



## Tourism Services

The total number of tourist arrivals in Calabarzon increased from 3,699,317 in 2010 to 7,529,697 in 2012 (Table 3.11). As of July 2013, the total number of visitors for Calabarzon was already 1,829,000. Domestic tourists continue to be the biggest contributor of the tourist arrivals for the region during the three-year period. The tourist data improved during the period upon the implementation of the basic tourism statistics training.

**Table 3.11 Visitors Arrivals, Calabarzon, 2010 to 2012**

Region/ Province	2010	2011	2012
Calabarzon	3,699,317	5,309,742	7,529,697
Cavite	1,284,934	1,770,500	1,823,516
Laguna	2,157,624	2,873,128	4,168,640
Batangas	256,759	414,077	381,123
Rizal	no data reported	228,145	1,126,191
Quezon	no data reported	104,892	30,227

Source: Department of Tourism

## Challenges

- Low capability of local producers and suppliers for positioning in the global value chain
- Decreased competitiveness due to the rising cost of doing business
- Limited responsiveness and relevance of current education curricula to labor market demands and industry requirements (job-skills mismatch)
- Deficiency in the maintenance of industrial labor relations and compliance with labor standards
- Disjointed capacities of LGUs, investors, stakeholders, and institutions in keeping pace with the growing IT/BPM industry
- Absence of a global promotional strategy for Calabarzon tourism
- Low level of preparedness of industries for the AEC 2015
- Volatility in foreign exchange rates and financial markets continue to pose as a challenge to the region's economy, particularly in the export-oriented manufacturing and IT-BPM industries

## Prospects and Opportunities

For the industry sector, the main drivers of growth are manufacturing, ecozones locator firms, and high population demand including growing number of overseas Filipinos and families

- Sustained demand in international market for electronics and semiconductor products
- Sustained aggressive outbound investment promotion thru trade fairs and product-promotion activities
- Intensify government outbound investment missions
- Enhanced responsiveness of trade and technical vocation schools' curricula to suit industry requirements
- Aggressive promotion to entice prospective locators in establishing business operation in the ecozones

The private services, communications and IT/BPM, trade and finance, real estate, and government services are the sources of growth for the services sector. The following are the development prospects for the service sector:



- Growth in trade and banking services
- IT/BPM forecasts 1.3 million direct jobs in 2016
- Increase demand for various ICT services, finance and trade activities
- ICT infrastructures and institutional support in place thru LGU e-governance efforts
- Excellent prospects in tourism sector
- Front-loading of government services prior to election year
- Opening of new areas for housing and commercial development
- Operation and completion of major roads and ports infrastructure projects at the close of the decade
- Population increase will continue to exert demand for housing construction

## Strategies

From 2013 to 2016, the region’s growth target for the industry sector is between 4.5 to 6.5 percent while 8.0 to 10.0 percent for the services sector (Table 3.12).

**Table 3.12 Calabarzon Industry and Services Growth Rate Targets, 2013 to 2016**  
In Percent

Sector	2013	2014	2015	2016
<b>Industry</b>	4.5 - 5.5	4.7 - 5.7	5.2 - 6.2	5.5 - 6.5
<b>Services</b>	8.0 - 9.0	8.2 - 9.2	8.7 - 9.7	9.0 - 10.0

Enhance capability of local producers and suppliers in the global value chain positioning for AEC 2015

- Improvement of product quality, product diversification, technological materials, and manufacturing process and equipment
- Implementation of capability building/continuing education for the labor force to compete globally, thereby increasing the export performance of industries
- Promote and institutionalize Business Permits and Licensing System (BPLS) and other business-related programs and projects to improve business enabling environment

Enhance economic competitiveness and improve access for financing opportunities for MSMEs

- Support the outcome portfolios of the MSME Development Plan (MSED) by the Micro Small and Medium Enterprises Development Council. The outcome portfolios of the MSME Development Plan are: (a) affordable cost of doing business; (b) sustainable, available and accessible financial products, services and support programs even for start-up MSMEs and those in the country side; (c) maintenance of existing markets and penetration to new and emerging markets locally and globally; and (d) coordinated, effective and highly satisfactory government support programs to help MSMEs access local and global markets.
- Develop and strengthen the MSME sub-sector through the following:
  - provision of credit, technology, and marketing support
  - revival of manufacturing sector
  - institutionalization of the industry cluster program
  - product development and marketing assistance to potential and existing exporters
  - broadening and deepening the region’s exporter base
  - conduct of various trade fairs (provincial, regional and national)
  - business consultancy, training, financing and marketing programs



- alliance between the academe and industry where companies and colleges/ universities can work together in establishing a system to address the gap between academic and on-the-job knowledge
- convergence of line agencies' programs and projects in improving productivity of MSMEs
- Expand industry cluster development
- Improve supply chains of basic and prime commodities

Improve responsiveness and relevance of current education curricula to labor market demands and industry requirements to reduce job-skills mismatch

- Expand access to employment opportunities by prioritizing the beneficiaries from the identified poorest of the poor municipalities
- Prioritize students and out of school youth for short-term employment in private sector to be able to pursue education.
- Strengthen DOST IV-A Community-based Projects, Small Enterprise Technology Upgrading Program (SETUP), and Innovation Centers
- Strengthen DOLE's Community Based Employment Program (DOLE-CBEP) particularly the Emergency Employment component to create jobs for the vulnerable workers through public-private partnerships, convergence of services and resources, and development of sustainable livelihood and entrepreneurship opportunities
- Strengthen CHED-industry linkage to address the job-skills mismatch, e.g. CHED-BPAP Service Management Program

Scale up maintenance of industrial labor relations and compliance with labor standards

- Incentivize companies in voluntary on compliance with PBP (Productivity-Based Pay) Tier 2 Policy
- Conduct refinements in the PBP Tier 2 Policy
- Strengthen DOLE's Integrated Livelihood Program (DILP) and Special Program for Employment of Students (SPES)
- Revisit current labor policies to fully implement and integrate the labor reform package

Develop and promote global promotional strategy for Calabarzon Tourism

- Develop and strengthen regional tourism branding/ identity by supporting the National Tourism Development Plan, specifically support the development initiatives of region's tourism development areas (TDA):
  - Metro Manila and Environs which include Antipolo City's National Shrine of Our Lady of Peace and Good Voyage
  - Nasugbu-Looc-Ternate-Cavite Coast: rehabilitate historical landmarks and museums; improvement of adventure facilities
  - Laguna de Bay: restore historical landmarks and develop eco-tourism sites; promote development of spa and wellness tourism activities
  - Batangas Peninsula: promote health and wellness tourism and adventure experiences
  - Quezon Coast and hinterland: development of camp training and cultural tourism activities
- Provide adequate infrastructure support in the region through the convergence program of DOT and DPWH

Improve capacities of LGUs, investors, stakeholders and institutions in keeping pace with the growing IT/BPM industry

- To maximize potentials and harness talents from all over the region, IT-BPM-ready cities/provinces should be included in the National ICT Confederation of the Philippines (NICP), the national umbrella organization of all ICT Councils in the country.
- Creation of local ICT Council in each IT-BPM ready cities/provinces to harmonize efforts to keep pace with the growth of the industry



## IV: Competitive and Sustainable Agriculture and Fisheries Sector

The agriculture and fishery sector remains to be an important growth driver of the region as a source of raw materials and food in which a large number of families depend on. Thus, the growth of the agriculture and fishery sector is instrumental in attaining sustainable and inclusive growth. Faced with challenges in ensuring food security, pressures brought about by declining production area, disaster and climate change, this Chapter aims to harness the vast endowment of the region in terms of natural resources to provide various economic and recreational activities that supports the region's goal of promoting livability and sustaining economic growth.

### Assessment and Challenges

The agriculture, hunting, forestry, and fishery (AHFF) sector of the region represented about 6.6 percent of the regional economy from 2010 to 2012. In spite of its small share in the regional economy compared to the industry and services sectors, it contributed about 10.0 percent to the national AHFF, second to the Central Luzon region.

The AHFF sector showed positive and increasing growth rate during the past three years, with an annual average growth of 1.9 percent. In 2000 constant prices, AHFF was valued and increased from PhP 66.9 billion in 2010 to PhP 69.4 billion in 2012 (Table 4.1). The fishery sub-sector posted a very significant growth from -5.7 percent to 3.9 percent from 2010 to 2011 and 2011 to 2012, respectively. Meanwhile, the 1.8 percentage points decline in the agriculture and forestry sub-sector was offset by the growth in the fishery sub-sector particularly the aquaculture fishery industry.

**Table 4.1 Gross Regional Domestic Product: Agriculture, Fishery and Forestry Sector Value (In PhP '000) and Growth Rates (In Percent) Calabarzon 2010 to 2012, At constant 2000 prices**

Sector/Year	2011	Growth Rate	2012	Growth Rate
<b>Agriculture, hunting, fishery and forestry</b>	67,743,388	0.1	69,443,773	6.9
<b>a. Agriculture and forestry</b>	50,718,517	3.3	51,756,013	2.0
<b>b. Fishing</b>	17,024,871	0.3	17,687,760	5.9
<b>Gross Regional Domestic Product</b>	1,026,046,727	1.7	1,097,720,281	7.0

Source: National Statistical Coordination Board

### Rice and corn

Rice production increased by 2.3 percent from 2010 to 2011 but subsequently decreased by 2.6 percent from 2011 to 2012. Provincial disaggregation indicated that the same trend is true for the provinces except in Quezon where production and irrigated area increased by 6.0 percentage points from 2011 to 2012. The general decline in rice production could be attributed to the decrease in area harvested and to occurrence of unfavorable weather conditions such as typhoons and monsoon surges.



Irrigated rice continued to be the main contributor in the regional rice production, constituting about 81.2 percent or 390,406 metric tons of the rice in 2012. Laguna and Quezon are the top two provinces in the region in terms of highest volume of rice produced. Rainfed and upland rice, meanwhile, contributed 18.4 percent and 0.8 percent, respectively, of the total rice production in the region (Table 4.2).

**Table 4.2 Rice Production by Type, Calabarzon, 2010 to 2012  
In Metric Tons**

2010				
Province/Type	Irrigated	Rainfed	Upland	Total
Calabarzon	320,595	65,451	3,434	390,189
Batangas	39,133	12,892	1,398	53,423
Cavite	43,175	1,365	2,074	46,614
Laguna	121,511	1,535	81	123,127
Quezon	90,123	48,379	590	139,092
Rizal	26,653	1,280	0	27,933
2011				
Calabarzon	320,479	74,072	2,903	399,193
Batangas	37,983	9,986	1,600	49,569
Cavite	34,993	875	2,614	38,482
Laguna	124,500	1,501	107	126,108
Quezon	94,295	59,909	321	154,525
Rizal	28,708	1,801	0	30,509
2012				
Calabarzon	309,406	76,038	2,901	113,010
Batangas	34,236	7,791	1,179	43,206
Cavite	35,782	893	1,820	38,495
Laguna	119,114	1,729	110	120,953
Quezon	95,889	64,438	624	160,951
Rizal	24,385	1,187	95	25,667

Source: Bureau of Agricultural Statistics

In terms of yield per hectare, the region registered an average yield in rice of 3.6 metric tons from 2010 to 2012. The decreasing trend in regional yield of rice is experienced by the provinces of Batangas, Laguna and Quezon. Rizal exhibited increasing yield per hectare during the period and Cavite posted an increase in yield by 2012 (Table 4.3).

**Table 4.3 Rice Yield per hectare, Calabarzon 2010 to 2012**

Region/ Province	2010	2011	2012
Calabarzon	3.75	3.50	3.44
Batangas	3.97	3.41	2.94
Cavite	3.91	3.08	3.47
Laguna	4.38	4.11	4.05
Quezon	3.22	3.18	3.16
Rizal	3.80	3.83	4.00

Source: Department of Agriculture



Meanwhile, the increase in corn production by 1.9 percent from 2011 to 2012 can be attributed to the increase in area harvested by 3.7 percent. The expansion in corn production is due to strengthening of the corn program in the region through provision of high value seeds and continued interventions to capacitate the corn farmers.

Production of white and yellow corn is dominated by the provinces of Batangas and Quezon. For white corn, about half of the total regional production is from Batangas province, 37.7 percent from Quezon. In terms of yellow corn production, Quezon province dominates the regional production which grew by 1.3 times from 2010 to 2012 (Table 4.4).

**Table 4.4 Corn Production by Type, Calabarzon 2010 to 2012**  
In Metric Tons

Year	2010			2011			2012			
	Province/ Type	White	Yellow	Total	White	Yellow	Total	White	Yellow	Total
Calabarzon		35,665	24,544	60,209	32,717	24,840	57,557	30,090	28,567	58,657
Batangas		18,551	5,729	24,280	16,982	4,205	21,187	10,018	5,305	15,323
Cavite		905	1,039	1,944	1,567	930	2,497	1,511	1,048	2,559
Laguna		2,265	443	2,708	2,118	504	2,622	2,297	567	2,864
Quezon		13,757	16,576	30,333	11,759	18,512	30,271	15,677	21,099	36,776
Rizal		187	757	944	291	689	980	587	548	1,135

Source: Bureau of Agricultural Statistics

However, there is still a need to expand the area allocated for corn production to supply the corn requirement of the well-developed livestock and poultry sector in the region, i.e., 110 feed mills in the region and the increasing demand from its neighboring regions.

## Major Crops

In terms of other agricultural crops, the region still played an important role of producing traditional high value crops from 2010 to 2012. The growth of mango and sugarcane production was observed in 2011, but both declined in 2012 at the rate of -5.8 and -10.0 percent, respectively. Meanwhile coconut, coffee, and pineapple registered positive growth rates from 2011 to 2012. Coffee production, majority in Cavite and Batangas provinces, decline by -36.7 in 2010 to 2011 due to the very low price of coffee in the market. In 2012, Calabarzon produced 1.92 million metric tons of sugarcane (7.3 percent of the national production), 1.42 million metric tons of coconut (8.9 percent), 8,568 metric tons of coffee (9.6 percent), 86,388 metric tons of pineapple (3.6 percent), and 55,215 metric tons of mango (7.2 percent) (Table 4.5).

Other commodities in which the region is among the top suppliers are pinakbet vegetables (ampalaya, eggplant, squash), radish, gourd, native pechay, ginger, rambutan, mandarin, calamansi, and lanzones, as well as flowers like gladiola and orchids. However, production of these commodities generally showed declining growth rates during the period except for ampalaya, lanzones, rambutan, and gladiola.

The general decrease in the production performance can be attributed to vulnerability of annual crops to adverse environmental conditions such as El Niño, monsoon surges, typhoons, insect infestation, and climate changes. The biological nature of the agricultural sector subsequently affects the demand and prices of the commodities. Among the challenges in sustaining productivity of crops are the decreasing and limited agricultural lands due to land conversion to non-agricultural uses, low income of farmers and poor profitability, low production and



productivity, inadequate farm infrastructure and other support facilities, and vulnerability to climate change and disasters.

**Table 4.5 Major Agricultural Crops, Calabarzon 2010 to 2012  
In Metric Tons**

Year Commodity	Volume of Production			Growth Rates		2012 Share to National Volume
	2010	2011	2012	2010 to 2011	2011 to 2012	
Coconut	1,394,637.7	1,390,853.8	1,417,439.0	-0.3	1.9	8.9
Coffee	8,764.1	5,549.5	8,568.1	-36.7	0.5	9.6
Sugarcane	1,665,807.0	2,132,414.9	1,918,858.2	28.0	-10.0	7.3
Pineapple	87,561.2	86,178.2	86,388.6	-1.6	0.2	3.6
Mango	44,913.9	58,627.8	55,215.2	30.5	-5.8	7.2
Gourd	30,581.4	29,942.5	29,369.5	-2.1	-1.9	31.7
Radish	3,315.6	3,219.2	3,092.4	-2.9	-3.9	32.1
Squash	43,365.2	40,605.2	38,597.8	-6.4	-4.9	17.3
Native Pechay	6,377.5	6,777.3	6,939.9	6.3	2.4	15.4
Ampalaya	24,003.6	24,029.8	24,224.1	0.1	0.8	27.8
Eggplant	37,572.6	36,400.8	36,149.8	-3.1	-0.7	17.1
Ginger	4,385.8	4,520.6	3,867.8	3.1	-14.4	14.0
Rambutan	8,7561.2	86,178.2	86,388.6	-1.6	0.2	38.6
Lanzones	1,006.7	638.1	1,599.7	-36.6	150.7	11.3
Mandarin	4,903.8	4,745.9	4,656.2	-3.2	-1.9	27.8
Calamansi	15,327.8	15,112.4	14,382.1	-1.4	-4.8	8.1
Gladiola	49.1	45.3	51.4	-7.8	13.5	4.8
Orchids	117.4	109.6	103.3	-6.6	-5.8	7.4

Source: Bureau of Agricultural Statistics

## Fisheries

In 2012, the region contributed 8.4 percent to the national fisheries' production and 9.0 percent in terms of value. The sector grew by 1.3 percent in 2011 to 2012 from a -2.5 percent decline in 2010 to 2011. Commercial fishery sub-sector contributed 17.0 percent, inland fishery by 31.0 percent while aquaculture continued to constitute more than half of the region's fishery production at 52.0 percent (Table 4.6). The increase in fishery production in the region can be attributed to increase in inland municipal and aquaculture fish production. This performance is supported by promotion of aquaculture, availability of hatchery and breeding operations, and continued provision of fingerlings and technical assistance to farmers as well as intensification and promotion of the fisher folk insurance program.

The challenge for the fishery sector lies in (a) the infestation of knife fish in major lakes of the region; (b) decreasing population of endemic and native species in open bodies of water, depletion of fishing grounds; (c) incidence of siltation, sedimentation, and fish kill; and (d) degradation of water quality in the region's freshwater lakes due to unmitigated discharge of domestic, industrial, and agricultural wastes.

## Livestock and Poultry

The livestock and poultry sector remains to be a significant economic driver of the region. On poultry industry, chicken production posted an increase of 8.6 percent or about 2.4 million heads while chicken eggs increased by 13.6 percent accounting for 17.6 metric tons from 2010 to



2012. The increase is brought about by increased presence of institutional establishments in the region as well as by the increase in demand. On the other hand, duck production posted a continuous decline from -1.9 percent in 2011 to -11.9 percent or 39 thousand heads in 2012. The decline in duck production could be attributed to decrease in demand and value of production as well as decreasing farm gate price of duck meat at PhP 74.00 in 2010 to PhP60.00 per kilogram in 2011 and 2012 (Table 4.7).

**Table 4.6 Volume of Fish Production by Type, Calabarzon, 2010 to 2012  
In Metric Tons**

Province/Type	2010			Total
	Commercial	Municipal	Aquaculture	
<b>Calabarzon</b>	85,090	127,307	200,911	413,308
<b>Batangas</b>	6,068	19,530	81,415	107,014
<b>Cavite</b>	5,599	2,960	6,606	15,165
<b>Laguna</b>	-	37,294	10,926	48,220
<b>Quezon</b>	73,423	22,285	55,688	151,396
<b>Rizal</b>	-	45,327	46,276	91,513
	2011			
<b>Calabarzon</b>	73,103	124,549	205,243	413,308
<b>Batangas</b>	5,816	17,534	77,355	107,014
<b>Cavite</b>	5,821	3,311	7,554	15,165
<b>Laguna</b>	-	37,784	10,826	48,220
<b>Quezon</b>	61,466	18,867	60,509	151,396
<b>Rizal</b>	-	47,053	48,999	91,513
	2012			
<b>Calabarzon</b>	69,157	127,019	211,964	413,308
<b>Batangas</b>	5,721	15,310	78,502	107,014
<b>Cavite</b>	5,081	2,780	9,679	15,165
<b>Laguna</b>	-	37,949	10,598	48,220
<b>Quezon</b>	58,355	21,462	63,097	151,396
<b>Rizal</b>	-	49,518	50,088	91,513

Source: Bureau of Agricultural Statistics

Cattle production decreased by 1.4 percent or about 3,500 heads from 2010 to 2012 with general decrease among the provinces except for the substantial increase posted by Rizal at 15.6 percent and Laguna at 7.6 percent. The increase from the provinces of Rizal and Laguna is about 778 and 3,038 cattle heads, respectively. The increase in production of cattle in Laguna and Rizal could be attributed to the increasing demand by the dairy industry present in both provinces. Swine/hog production decreased by 7.1 percent or about 117,000 swine heads during the same period and goat production posted the same trend at -12.0 percent or a decrease of about 27,000 goat heads (Table 4.8). The general decrease in production on the livestock sector is due to high cost of production input particularly on the feeds compounded by low market prices. Nevertheless, the livestock and poultry sub-sector is well developed and remains to be significant contributors to AHFF performance of the region. Relatedly, production is boosted as the whole country remains foot and mouth disease (FMD) and avian flu-free zone since 2010.



**Table 4.7 Poultry Production by Type, Calabarzon, 2010 to 2012**

2010			
Province/ Type	Chicken (number of heads)	Chicken Eggs (in metric tons)	Duck (number of heads)
Calabarzon	25,834,052	112,096	37,0355
Batangas	10,619,123	61,468	65,390
Cavite	2,786,288	6,531	34,259
Laguna	2,423,260	4,553	76,440
Quezon	3,534,041	6,892	115,700
Rizal	6,471,340	32,652	78,566
2011			
Calabarzon	28,360,113	120,876	363,184
Batangas	10,821,537	62,819	62,398
Cavite	2,551,070	6,196	33,279
Laguna	3,016,510	5,087	91,755
Quezon	4,775,300	7,192	116,400
Rizal	7,195,696	39,582	59,352
2012			
Calabarzon	28,260,078	129,777	324,299
Batangas	10,933,291	70,893	51,892
Cavite	2,361,236	4,974	21,179
Laguna	2,962,198	4,791	92,678
Quezon	4,784,850	7,304	115,700
Rizal	7,218,503	41,815	42,850

Source: Bureau of Agricultural Statistics

**Table 4.8 Livestock Production by Type, Calabarzon, 2010 to 2012**  
In Number of Heads

Year	2010			2011			2012		
	Cattle	Hog	Goat	Cattle	Hog	Goat	Cattle	Hog	Goat
Calabarzon	255,253	1,59,631	231,167	250,927	1,652,613	221,326	251,744	1,642,311	227,826
Batangas	130,325	691,532	120,836	127,384	664,733	118,353	127,414	678,763	118,746
Cavite	29,276	173,673	16,483	26,494	164,994	15,987	25,912	170,679	15,632
Laguna	36,836	279,204	18,872	39,850	243,850	16,963	39,874	211,023	20,708
Quezon	54,600	238,300	72,330	52,747	222,200	66,568	53,550	224,598	67,710
Rizal	4,216	376,922	2,646	4,452	356,836	3,455	4,994	357,248	5,030

Source: Bureau of Agricultural Statistics

The good performance of the region in livestock and poultry sub-sector is attributed to the strong surveillance and control program for diseases such as FMD and Avian Flu. Another contributor to the increase in production for livestock sub-sector is the increasing demand generated in the province of Batangas. The province remained to be the leading source of livestock and poultry products in the region due to its accessibility to different transport systems whether land-based or water-based, and the presence of establishments catering to the needs of the industry such as auction markets and contract growing farms.

Among the identified limiting factors in the sustainability and enhancement of the livestock and poultry sector is the limited expansion of the corn industry in the region with only 3.7 percent growth from 2010 to 2012. Moreover, the livestock and poultry sector have a constant threat of diseases, endemic or otherwise. Thus, it needs constant surveillance and strong disease control program. Relatedly, the influx of imported and sometimes smuggled meat negatively affect



pricing of locally produced carcass especially pork. Incompatible land use for swine production brought about by rapid urbanization and which forced producers to scale down, relocate and even terminate production is likewise a constraint.

## Prices

The price of rice was relatively stable considering that the increase in price was not more than 3.0 percent from 2010 to 2012. Corn grain prices increased by as much as 17 percent from 2010 to 2012. Poultry and poultry product prices were stable with not more than 3.2 percent increase (Table 4.9). The price of major agriculture commodities increased from 2010 to 2012 except for the price of swine. The general increase in price could be attributed to the increase in demand, and yet there was a decrease in production due to unfavorable weather conditions, climate change and disaster occurrence from 2010 to 2012. The decrease in the price of swine could be attributed to increasing number of imported meat in the market which is cheaper than those that are locally produced, and instances of meat smuggling.

**Table 4.9 Farmgate Prices of Major Agricultural Commodities, Calabarzon, 2010 to 2012  
In Philippine Pesos**

Commodity	2010	2011	2012
Regular Milled Rice	28.45	29.17	30.04
Corn grain yellow, matured	11.26	11.95	12.43
Corn grain white, matured	11.00	14.40	13.35
Banana lakatan, green	14.26	13.74	14.27
Mango carabao, green	28.22	29.23	28.94
Cattle for slaughter	81.79	83.73	84.36
Hogs upgraded for slaughter	90.56	89.08	88.26
Chicken broiler (backyard)	94.64	95.23	95.89
Chicken Layer (culls)	44.46	44.58	34.39

Source: Bureau of Agricultural Statistics

To attain stable prices for major AHFF products, the two-pronged challenge is to formulate right policy proposals regarding price floor and ceiling, and to increase post-harvest and value-adding facilities. The latter recognizes the fact that prices for AHFF products are dictated by the consumers due to the products' highly perishable nature and influx of imported and sometimes smuggled food products.

## Employment

The sector provides employment to an average of 9.3 percent of the region's labor force from 2010 to 2012. Employment for the AHFF sector decreased from 2010 to 2012 by 5.0 percent (about 38,000) of work force of the region (Table 4.10). The decrease could be attributed to aging population engaged in AHFF activities and decreasing available labor resources since most of the farmers' children migrate to the urban centers for other employment opportunities. Relatedly, families left behind by overseas Filipino workers discontinued their AHFF endeavors and activities, and relied mainly on the remittances they received. Hence, the challenge is to encourage and sustain interest of potential labor resources to re-engage in AHFF activities as well as to promote steady increase in investments in the sector to create sufficient and sustainable employment opportunities.



**Table 4.10 Employment in the Agriculture, Hunting, Fishery and Forestry Sector  
Calabarzon, 2010 to 2012  
In Thousands**

Sex/ Year	2010	2011	2012
<b>Total</b>	759	742	721
<b>Female</b>	162	160	151
<b>Male</b>	598	582	570

Source: National Statistics Office

## Crop Insurance

The number of crop insurance offered for the region jumped from 46.6 million in 2010 to 89.7 million in 2012 (Table 4.11). Such increase was mainly due to the growing amount of money allocated by the government for this program. The allocated fund for crop insurance got bigger from PhP2.3 million in 2010 to PhP4.4 million in 2012. Consequently, the number of farmers who availed the crop insurance swelled from 1,217 in 2010 to 2,926 in 2012. The increase was attributed to the felt need to provide insurance in view of climate change and disaster risks.

**Table 4.11 Amount of Crop Insurance Offered and Number of Farmers' Availment  
Calabarzon 2010 to 2012**

Indicator	2010	2012
Farmers who availed	1,217	2,926
Government fund for crop insurance (PhP million)	2.3	4.4
Amount of crop insurance offered (PhP million)	46.6	89.7

Source: Department of Agrarian Reform

Despite the increasing performance of crop insurance in the region, the majority of the farmers still have no access to information and the service itself. Those who have been informed were discouraged by the stringent requirements to avail the service.

Among the major challenges identified for the AHFF sector are the lack of financial capital; inadequate infrastructure support such as roads, bridges, irrigation systems, farm-to-market roads and post-harvest facilities; decreasing food security coupled by the increasing population; uncompetitive agri-based products due to weak agri-industry linkages, low value adding, low mechanization and technology adoption brought about by high cost of machineries; low production and profitability, climate change vulnerability of both crops and AHFF communities; lenient implementation of AHFF laws; and declining AHFF related employment. The sector is notably the most vulnerable to climate change and disaster risks.

## Prospects and Opportunities

The prospects and opportunities for growth in the region lie in the high value and commercial crop production, poultry and livestock sector, aquaculture industries, and increasing number of agri-MSMEs.

More specifically, such opportunities presented in the region are in the sustained high value commercial crop production especially in the upland areas, gains from freshwater ornamental fish production, strong aquaculture growth in Quezon, Rizal, Batangas and Cavite, and seaweeds production in Southern Quezon. Sustained grow this also seen in poultry, egg and hog food consumption in the region's urban centers and NCR food market. Full operationalization of



agricultural trade and marketing centers in strategic locations in the five provinces and full operation of freight handling capacity of Batangas port will also open up vast opportunities for economic growth in the region.

## Strategic Framework

The agriculture and fishery sector aims to achieve the regional growth target at the minimum 2.7 for 2013 and 4.2 in 2016. Broad strategies in AHFF which will be pursued until 2016 are: (1) improve food security; (2) improve household income; and (3) increase the sector's resilience to climate change.

### Improve food security

- Formulate and implement road maps for priority commodities (i.e. rice and corn)
- Focus interventions on priority commodities (i.e. HVCC, aquaculture, poultry and livestock) and development prospects of the region
- Maximize available agricultural lands for agro-forestry and agro-tourism and production of high-value commercial crops through intensified, diversified and integrated farming systems
- Strengthen the surveillance and control programs to maintain FMD and avian flu status of the livestock and poultry industry
- Implement integrated water management system, and establish and strictly enforce anti-pollution standards to prevent further deterioration of water bodies and to improve the region's lake water quality
- Strictly monitor sustainable use of freshwater ecosystem to lessen the unmitigated input of domestic, industrial, and agricultural wastes
- Review the effectiveness of critical legislations such as the Agriculture and Fisheries Modernization Act (AFMA), Fisheries Code, and policies such as sugar trade
- Adopt Managing for Development Results (MfDR) program as a common approach among rural development agencies
- Enhance research, development and extension towards processing high-value commercial crops, livestock products, and other crops for value-added products
- Pursue value chain development and research and extension services to ensure timely and useful delivery of services and to increase competitiveness of agri-based products that is at par with the global standards
- Implement budgetary reforms to strengthen AHFF programs and projects
- Implement policies and laws governing land use conversions
- Update and strictly implement Strategic Agriculture and Fisheries Development Zones (SAFDZ)
- Improve system in the management of fallowed areas
- Promote inter-agency coordination through the creation of Task Force on Problematic Landholdings
- Strictly enforce laws related to CARPer Act and the National Land Use Bill
- Improve market and trade access by improving infrastructures and reducing trade barriers
- Prioritize construction and improvement of farm to market roads, major thoroughfares, and bridges
- Rehabilitate and restore irrigation facilities
- Establish post-harvest facilities and improve/upgrade existing ones
- Pursue public-private partnerships in implementing rural infrastructures
- Operationalize and maximize use of existing ports
- Encourage mechanization and increase technology adaptation by providing cost effective and efficient technologies and through the promotion of Shared Service Facilities
- Further strengthen linkage with food commodity market through timely access to market information and efficient distribution system
- Harness potentials of AEC 2015



## **Increase Household Income**

- Increase linkages among collaborating agencies in promoting and identification of agri-based products that is needed by the local and global market
- Promote value adding and strengthen the region's marketing efforts in exporting products abroad
- Empower the marginalized sector (rural farming/fishing communities) by providing assistance in departing from traditional farming systems towards high value farming and ornamental fish production and marketing
- Strengthen farmers' cooperatives by giving technical assistance in technology and financial management
- Pool farmer's resources to improve access to effective farming technologies and economies of scale.
- Review effectiveness of relevant legislations such as the Anti-Smuggling Act of 2010
- Create right policy proposals regarding issuances on price floor and ceiling

To address declining agriculture labor resource, there is a need to:

- Increase agri-business and agriculture scholarships provided by state colleges and universities (SUCs)
- Establish academe-industry partnership to create interest among and demand for agri-entrepreneur students
- Promote and provide attractive investment opportunities in agriculture, fisheries and agri-business industries

## **Increase sector resilience to climate change**

- Increase adoptive capacity to non-climate sensitive economic endeavors such as to transform small-holder farmers including agrarian reform beneficiaries (ARBs) into viable entrepreneurs
- Promote ecosystem-based management approaches such as ridge to reef management system
- Promote natural resources-based economic endeavors such as agri-ecotourism
- Develop climate change-sensitive technologies
- Establish climate-resilient agricultural infrastructure
- Develop climate-responsive food production systems
- Incorporate natural hazards and climate risks in the agricultural land use plan and the Comprehensive Land Use Plan (CLUP)
- Strengthen the agriculture and fisheries insurance system as an important risk-sharing mechanism
- Promote insurance system by increasing access to information and institutions providing service, and formulate client-friendly policies, such as having provisions leading to non-stringent requirements



# V: Accelerating Infrastructure Development

In pursuit of achieving the national goal of inclusive growth and reduced poverty, the region has pushed for the acceleration of infrastructure development. Comprised of transportation system, water supply and irrigation facilities, flood control and drainage system, social infrastructure, solid waste management facilities, power, and information and communications technology, infrastructure development is a key towards achieving inclusive growth and poverty reduction. Moreover, this chapter will integrate regional development by boosting tourism, ensuring market access and increasing agricultural productivity, widening access to social services and safeguarding the environment and thus make the region resilient to climate change and natural disasters. Infrastructure development is also vital in achieving the Calabarzon's goal of becoming the most liveable industrial region in the country as it creates a globally attractive investment climate and wide array of opportunities.

## Assessment and Challenges

### Transport

The strategic geographical location of Calabarzon makes the region one of the most populous and highly industrialized regions in the country, serving as the primary catch basin of population and industry spillover from the NCR. This rapid pace of urbanization in the region has led to an increasing demand for a more efficient and diverse transportation system. To keep up with the demand, the region prioritized the implementation and completion of various transport projects during the previous planning period and continuing in the initial half of the current planning period. These transport projects such as roads and bridges, ports, airports, and railway system were aimed to improve connectivity in the countryside, facilitate mobility of people, goods and services as well as decongestion of traffic in existing major arterial roads of the region. More importantly, the road projects have strengthened the east-west connections.

The road projects completed during the first half of the planning period include the South Luzon Expressway (SLEX) Toll Road 3, Manila-Cavite Toll Expressway R-1 Extension Project also known as the CAVITEX, Marikina-Infanta Road, Candelaria and Tiaong By-Pass Roads and Ternate-Nasugbu Road (Table 5.1).

**Table 5.1 Completed Major Road Projects, Calabarzon, 2010 to First Semester 2013**

Road	Length (in kilometers)	Location	Completion Date
SLEX Toll Road 3	7.6	Calamba City to Sto. Tomas, Batangas	June 2010
CAVITEX	7.0	Bacoor to Kawit	April 2011
Marikina-Infanta Road	11.28	Marikina, Rizal, Laguna, Quezon	November 2011
Candelaria and Tiaong By-Pass Roads	7.52	Quezon	2012
Ternate-Nasugbu Road Underground Tunnel	0.30	Cavite, Batangas	June 2013

Source: Department of Public Ways and Highways



The SLEX Toll Road 3, completed in June 2010, is a 7.6-kilometer missing link between SLEX to the Southern Tagalog Arterial Road (STAR) Tollway which runs from Calamba exit to Sto. Tomas exit. This provided uninterrupted access to the Port of Batangas and other parts of Batangas province and helped in reducing the traffic congestion on the national highway from Calamba City to Batangas City. The CAVITEX, on the other hand, is a dual two-lane 7.0-kilometer expressway from Bacoor to Kawit in Cavite. The project, completed in April 2011, not only provided a faster alternative route from the congested Aguinaldo Highway, but also enhanced the rapid development in Calabarzon as it served as a major link between Metro Manila and Cavite province.

Another completed road project is the 11.28 kilometers missing link of the Marikina-Infanta Road (MIR) that connects Marikina, Rizal, Laguna and Quezon. This road has been completed and made passable to traffic in November 2011, thus contributing towards strengthening the east-west transport connectivity in the region. Candelaria and Tiaong By-Pass Roads were completed and opened to public in 2012. The 7.52-kilometer Candelaria and Tiaong By-Pass Roads were designed to ease the traffic on Maharlika Highway - one of the busiest roads linking Quezon province and the Bicol Region to Manila. The Ternate-Nasugbu Road including its 300-meter two-way underground tunnel has been completed and opened to the public on June 2013. The road aims to shorten the travel time from Manila to Batangas and interconnects Batangas and Cavite coasts which will boost tourism and development in the western part of the two provinces.

Meanwhile, there are on-going road projects that are currently under construction, namely: 1) Quezon Eco-Tourism Coastal Road, 2) Silang-Indang-Aguinaldo-Magallanes-Nasugbu East West Road, 3) Daang Hari SLEX Link, 4) STAR Tollway Stage 2, 5) CALA Expressway and 6) SLEX TR4 (Sto. Tomas to Lucena). Once completed, these road projects are expected to improve transportation turnaround, further ease traffic congestion in the urban areas, and facilitate movements of people, goods and services.

Overall, during the first half of the planning period, there was an increase of 24.72 kilometers of paved roads and 56 lineal meters increase in permanent bridges. As of 2012, there is a total length of 2,254 kilometers of national road network in the region, of which 96.0 percent are already paved.

There are several existing national/terminal seaports in the region that are being managed by the Philippine Ports Authority (PPA). These are the Batangas Port, Bauan Port, Calatagan Port, San Juan Port, Gumaca Port, Talao-talao Port, and Perez Port. At present, improvement works are being done in these ports, which involve construction of back up area, passenger shed-RoRo ramps, perimeter fence, port gate, and expansion of passenger terminal building. Among the existing ports that are being closely monitored are the Batangas Port and Calatagan Port.

The Port of Batangas, one of the key ports in Calabarzon, provides a strategic point of entry in Luzon. Since 2007, this has been posting high record in shipping, passenger, and cargo movement until 2011. In spite of the past increase in the number of foreign vessels, recent port statistics in 2011 however showed a decrease in the port's ship calls both domestic and foreign vessels. The number of cargo movement likewise started to decrease in 2010 and remained low until 2012. Calatagan port in Batangas, on the other hand, serves as a nautical link from Calabarzon region to Lubang Island in Occidental Mindoro and other major tourism areas in MIMAROPA region, including the Calamianes Group of Islands in Palawan. It is also a critical port that would link Calabarzon to Central Luzon region. Inter-agency and inter-regional efforts are being done to achieve the full development of the port, particularly on the dredging works that would allow large vessel, such as RoRo operations feasible.

The country's railroad system is operated by the national government through the PNR. The PNR is supposed to operate in the Manila metropolitan area and in the provinces of Laguna, Quezon, Camarines Sur, and Albay. At present, the PNR service is only available from Tutuban in Manila to



the City of Biñan in Laguna. Its long-distance operation from Manila to Bicol and vice versa which resumed in 2010 has been suspended in 2012 due to a damaged bridge in Sariaya, Quezon. In line with the government's effort to provide better access from Southern to Northern Luzon, the region has supported the initiative of the other regions of Luzon and RDCs in conducting the Railways Summit. The Summit is intended to advocate for the revitalization, expansion, and modernization of the railway system.

Meanwhile, the extensions of Metro Manila's Light Rail Transit (LRT) were initiated during the first half of the planning period. These include the LRT Line 2 East Extension (Santolan in Pasig to Masinag in Antipolo City) and the LRT1 South Extension (Baclaran in Parañaque to City of Bacoor in Cavite).

The region, heavily reliant on the services provided by the Ninoy Aquino International Airport (NAIA) in Manila, pushed for the construction of SLEX and Skyway extension. This project, which aimed at improving access to the said airport, has yet to be completed and is currently on-going. The only existing and operational airport in the region is the Lucena Airport in Quezon. It only serves as feeder airport, hence limited only to catering to private operations for small cargo and limited passengers.

The major challenge for the transport sector is to fully achieve the desired seamless integration of intra-regional and inter-regional transportation services. Of prime concerns are the following:

- Under-developed east-west and north-south transport connections especially in rural areas
- The need to rehabilitate and modernize the railway system
- Peak-hour traffic congestion particularly along major thoroughfares in the city centers
- Potential of Batangas port and other major ports in the region is not fully harnessed and maximized
- Structural unsoundness of transport facilities due to disaster and climate change

## Flood Drainage and Management

Various flood control projects and assessment of drainage facilities were undertaken during the past two years. On the other hand, LLDA through the Laguna de Bay Institutional Strengthening and Community Participation (LISCOP) Project implemented various flood mitigation subprojects.

The DPWH-LLDA Flood Control and River Protection Convergence Project was started which aims to undertake and implement the construction of various high impact flood control systems, projects, and facilities in accordance with DPWH Flood Control Management Master Plan for Metro Manila and Laguna de Bay Region. The convergence project consists of two packages: (1) San Pedro, Biñan, and Sta. Cruz Rivers and (2) Mabitac and Sta. Maria Rivers. It is expected to be completed by the end of 2013 benefitting 101, 856 persons.

Although the DPWH and LLDA are implementing flood control projects in the region, flood mitigating measures must be expanded to be more multi-sectoral as flooding becomes more frequent and its impact is aggravated by climate change. There is also a growing need for a Calabarzon Flood Control Master Plan given the frequency and severity of flooding in the region.

As settlements and built-up types of land use continue to expand in Calabarzon due to a rapidly increasing population and the demands of urbanization, proper and integrated design of drainage systems are often neglected. The challenge for Calabarzon on flooding cannot be solely addressed by implementing mitigating structures (e.g. construction of flood drainage projects) and flood management plans. Such measures should be supplemented by other strategies that



cut across sectors, such as well-prepared and strict implementation of land use plans, reforestation projects, solid waste management, among others.

## Water Utilities

Several programs on improving access to water across the region have been implemented from 2010 to 2012 that contributed to the attainment of MDG 7 or reduction by half the proportion of people without sustainable access to safe drinking water. These programs include the Sagana at Ligtas na Tubig (SALIN Tubig) program, expansion of the water supply system, New Centennial Water Source Project, Sumag Diversion Project, and the Rehabilitation of Umiray-Angat Transbasin Tunnel Facility.

SALIN Tubig is a tripartite program of DOH, DILG, and the National Anti-Poverty Commission (NAPC). It is designed primarily to supply water systems for waterless municipalities, barangays, health centers and resettlement sites. The province of Laguna is currently being serviced by the program, especially the relocation sites of the province.

The Local Water Utilities Administration (LWUA) has also implemented some projects that would further expand as well as develop the water supply system in the provinces of Laguna and Quezon, respectively.

Water shortage is becoming evident in the region especially during dry season. Increased cropping intensity which has been noted in all of the five provinces and the competing uses of water for industrial, agricultural and residential purposes are among the factors that affect water supply in the region. To address these issues, programs and projects have been implemented to develop water supply infrastructure as well as to strengthen the irrigation systems in the region.

One of the major challenges faced by this sub-sector is the lack of a central water agency that will be accountable and responsible for water resource development, specifically to assess the water resource situation, enforce relevant policies, and provide support in water infrastructure development, among others. Another challenge is the depletion of water resources caused by unregulated extraction processes. Furthermore, the challenge for the sector is to be able to keep pace with the increasing demand for sufficient water supply, due to growing population and rapid urbanization, including increasing requirements for industrial operations.

## Irrigation

Continuous restoration and rehabilitation of irrigation areas are implemented in the region under NIA that ensure efficiency and productivity of the irrigation sector in the region. The targets of the program for the years 2011 to 2012 were fully completed. More than 55,000 hectares of agricultural land in Calabarzon are covered by various irrigation systems. This declined by 3.5 percent from 2011 to 2012 as irrigated lands were converted to non-agricultural land uses.

About half (49.3 %) of the region's irrigation systems (IS) are covered by the national IS with over 28,000 hectares in 2012 (Table 5.2). Communal and private IS constitute about 35.2 and 14.6 percent of the total irrigation system in the region. These provide service to about 17,000 farmer beneficiaries across the region.



**Table 5.2 Irrigation Systems, Calabarzon 2010 to 2012**  
Service Area in Hectares

Region/Province	2010					
	National Irrigation Systems		Communal Irrigation Systems		Private Irrigation Systems	
	Number	Service Area	Number	Service Area	Number	Service Area
Calabarzon	39	28,353	726	20,357	350	8,760
Batangas	1	903	50	2,857	8	249
Cavite	21	13,540	8	684	-	-
Laguna	13	9,156	55	4,636	56	2,437
Quezon	4	4,754	178	7,795	135	5,172
Rizal	-	-	435	4,385	151	902
2011						
Calabarzon	39	28,353	741	21,110	348	8,286
Batangas	1	903	55	2,970	7	184
Cavite	21	13,540	10	756	-	-
Laguna	13	9,156	56	4,670	55	2,013
Quezon	4	4,754	184	8,311	134	5,157
Rizal	-	-	436	4,403	152	932
2012						
Calabarzon	39	28,353	339	19,278	342	8,068
Batangas	1	903	58	3,348	6	140
Cavite	21	13,540	12	886	-	-
Laguna	13	9,156	55	4,661	53	1,994
Rizal	-	-	53	3,160	152	932
Quezon	4	4,754	161	7,223	131	5,002

Source: National Irrigation Administration IV-A

The major challenge of the irrigation sub-sector is the inadequate budget allocation for irrigation infrastructure. Bundled with the challenge of budget reduction are the constraints in irrigation infrastructure, such as conversion of irrigated lands to other uses, low technology adaptation, lack of capital, competing use of water, illegal squatting on irrigation structures, waste dumping, and inefficient collection of fees. Another challenge for the sector is to improve acceptance of newly introduced irrigation projects among the local farmers.

Moreover, the irrigation infrastructures are also vulnerable to natural hazards such as typhoons and flooding. These natural hazards cause extensive damage to irrigation infrastructure that may affect agriculture production in the region. For instance, the collapse of irrigation facilities in Tanza, Cavite was brought about by the onslaught of Southwest Monsoon (Habagat) in 2013.

## Social Infrastructure

To further improve the provision of social services in the region, various social infrastructure assets have been constructed. These include schools, classrooms, and hospitals, primarily benefiting the health and education sectors.

DepEd entered into a public-private partnership (PPP) agreement for School Infrastructure Project (PSIP). This project is in its first phase of implementation and aimed to construct 4,259 classrooms in 947 school sites in Calabarzon (Table 5.3). This would help decongest overcrowded classrooms in some of the existing schools in the region. Cavite's Modular School Building Project, implemented during the first half of the planning period, involved the



construction of 117 modular school buildings across 17 towns in Cavite province. The project specifically aimed to meet the increasing demand for classrooms as student population rises.

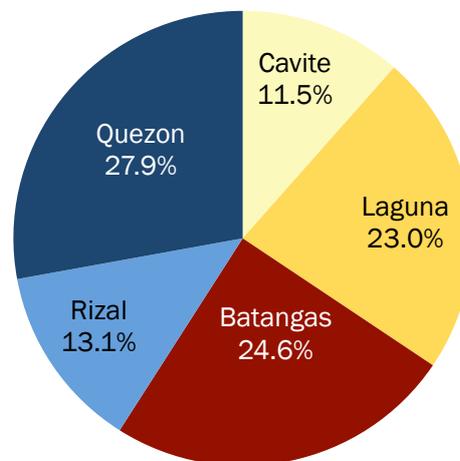
**Table 5.3 PPP School Infrastructure Projects, Calabarzon 2013**

Region/ Province	Number of Classrooms	Number of School Sites
Calabarzon	4,259	947
Batangas	715	152
Cavite	91	174
Laguna	974	194
Quezon	1,226	337
Rizal	452	90

Source: Department of Education

For the health sector, a total of 2,031 Barangay Health Stations (BHS) are existing in the region as of 2011. Quezon (447), Batangas (297) and Laguna (228) have the highest number of BHS in the region. Meanwhile, based on the 2011 data of DOH-CHD, there are 61 government hospitals and 166 private hospitals in the region. Of the total number of government hospitals, seven are in Cavite, 14 in Laguna, 15 in Batangas, 8 in Rizal and 18 in Quezon. Percentagewise, Quezon has the highest share (27.9%) while Cavite has the least (11.5%) (Table 5.1). As to private hospitals, 40 are in Cavite, 33 in Laguna, 51 in Batangas, 22 in Rizal and 20 in Quezon. These figures suggest that the health services are already made available in most parts of the region.

**Figure 5.1 Distribution of Government Hospitals, Calabarzon, 2011**



Source: Department of Health - Center for Health Development IV-A

The challenge for the social infrastructure subsector is to provide enough infrastructure facilities to service the growing population in Calabarzon. The need for new settlements should also be addressed considering that the region is experiencing growing in-migration. Moreover, provision of social infrastructures in remote and rural areas remains to be a challenge as such facilities tend to cluster in urban areas.

## Solid Waste Management

To promote efficient and effective solid waste management as well as to ensure productive, innovative, and sustainable waste management, the region pushed for the operation of sanitary



landfills (SLFs) and material recovery facilities (MRFs) in the region. As of 2013, there are a total of 21 SLFs in the region, of which 10 are LGU-owned while 11 are privately owned. The region also has recorded 233 MRFs (Table 5.4).

**Table 5.4 Solid Waste Facilities by Type, Calabarzon, 2013**

Region/ Province	LGU-Owned SLFs	Privately Owned SLFs	Total SLFs	MRFs
Calabarzon	10	0	21	233
Batangas	4	6	4	57
Cavite	2	3	8	55
Laguna	1	0	4	119
Quezon	2	2	2	No data available
Rizal	1	0	3	No data available

Source: Department of Environment and Natural Resources - Environmental Management Bureau

Among the challenges that the solid waste management sector faces is the continuous operation of open dump sites by some of the LGUs in the region, caused by the insufficient budget and inadequate areas for the establishment of SLFs. Another challenge is for the LGUs to sustain the efficient operation of the SLFs and MRFs in their respective areas. Unable to do so would increase the cost of operation of the said facilities, hence, would hinder their further development. The continuous growth of population as well as the rapid urbanization also poses a challenge for solid waste management as both factors are expected to increase the volume of wastes produced in the region.

## Energy

As of 2012, Calabarzon hosts 16 power plants which generated more than half of the power supply to the Luzon Grid. The Luzon Grid has a total installed capacity of 12,527.8 megawatts (MW). Electricity generation in the Luzon Grid increased by 4.1 percent from 50,265 gigawatt hours (GWh in 2010 to 52,312 GWh in 2012).

In Calabarzon, the dependable generating capacity increased by 15.7 percent from 5,363.75 MW in 2010 to 6,207.3 MW in 2012. As of 2012, natural gas-fired power plants provided the highest share in the capacity mix with about 43.1 percent or 2,861 MW, followed by coal-fired power plants (28.2 percent) with 1,875 MW. Renewable energy sources such as hydropower and geothermal likewise contribute significantly to the mix with 797.00 MW and 458.50 MW, respectively (Table 5.5). Meanwhile, the region's potential renewable energy resource in 2012-2013 is estimated at 38.1 MW, mainly to be generated from geothermal and biogas (Table 5.6). Moreover, the potential coal energy resource is pegged at 2.0 million metric tons which are mostly located in Quezon province's coal reserves.

**Table 5.5 Power Plants Capacity and Location, by Type, Calabarzon, 2012  
In Megawatts**

Plant Type	Installed Capacity	Dependable Capacity	Location
Natural Gas	2,861.0	2,759.0	Batangas
Coal	1,875.0	1,734.0	Quezon / Batangas
Oil-based	650.0	610.0	Rizal
Geothermal	458.5	333.9	Laguna
Hydropower	797.0	770.4	Laguna
<b>Total</b>	<b>6,641.5</b>	<b>6,207.3</b>	

Source: Department of Energy



**Table 5.6 Renewable Energy Resources, Calabarzon, 2012 to 2013  
In Megawatts**

Project	Capacity	Target Year	Location
<b>Geothermal</b>			
Mabini	20.00	2012	Mabini, Batangas
<b>Biomass</b>			
Unisan Biogen Corporation	10.08	2012	Unison, Quezon
Montalban Methane Power Corp	14.80	2013	San Isidro, Montalban, Rizal
Baca valley Energy	4.00	2013	San Pedro, Laguna
<b>Total</b>	<b>38.08</b>		

**Source: Department of Energy**

Distribution of power supply in Calabarzon is mainly provided by private electric utilities such as the Manila Electric Company (MERALCO) and several electric cooperatives (ECs), namely: Batangas I Electric Cooperative, Inc (BATELEC I), Batangas II Electric Cooperative, Inc. (BATELEC II), First Laguna Electric Cooperative, Inc. (FLECO), Quezon I Electric Cooperative, Inc. (QUEZELCO I), Quezon II Electric Cooperative, Inc. (QUEZELCO II). As of 2012, these electric utility company and cooperatives provided services to all the 71 cities and municipalities, energizing 99.9 percent of 1,945 barangays, and 85.3 percent of the 4,926 sitios. The total connections by different cooperatives in Calabarzon increased from 589,779 in 2010 to 633,985 in 2012. There are also Self-Generating Industries (SGIs) located in Calabarzon which own and operate power plants for their consumption. Geographical location still remains as the major obstacle in fully energizing the region.

The challenge for the power sector is to be able to keep pace with the ever increasing demand for energy requirements of the region's various industries. This is also compounded by the rising demand generated by individuals and corporate consumers. Moreover, the sustained development, implementation and adoption of cost-efficient power using renewable energy sources remain to be a challenge for the sector.

## Information Communications Technology

The present Administration has set achieving inclusive growth as its main goal, emphasizing that for the Philippines to achieve inclusive growth, it must build strong civil society by promoting transparent and good governance as well as efficient delivery of public services. To buttress this thrust, the national government through the Department of Science and Technology (DOST) launched in 2011 a new flagship ICT program called the 'Smarter Philippines.'

Composed of several components, the Smarter Philippines program seeks to provide more efficient and reliable services using ICT as an enabling tool. 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.

The iGovPhil is a new project that aims to achieve good governance, transparency, and efficient delivery of services to people by putting relevant mechanisms such as secured online government payment services, secured data centers, and integrated fiber optic network. Part of the iGovPhil project that is already on its initial stage of implementation is the migration of all government websites to a more secure and reliable hosting service managed by the DOST, and the adoption of the Uniform Website Content Policy as contained in the recent Administrative



Order 39 issued by President Benigno Aquino III. A guideline has been prepared to ensure the successful implementation of these components.

Meanwhile, the PhilCeC project which started in 2006 has continued to be implemented in various parts of the country including Calabarzon region, providing affordable access to ICT services in unserved and underserved areas. The project envisions establishment of a community e-center or CeC in every municipality, particularly in areas where there are no shared internet access facilities. As of October 2013, there are only 62 out of the 147 LGUs in Calabarzon that were able to establish CeC in their respective cities/municipalities.

Likewise, the eLGU Project was launched to the interested LGUs by the DOST-National Computer Center (DOST-NCC) to promote transparency in LGUs revenue collection function. The project requires setting up of server and workstations. It has two main components, namely, Electronic Real Property Tax System (eRPTS), which automates the four key functions in the LGUs real estate taxing operations; and Electronic Business Permit and Licensing System (EBPLS), which automates the processing of business permit application, assessment, collection, and release and report generation. To date, there are a number of LGUs in Calabarzon region that have adopted both systems.

The Next Wave Cities program is another component of the Smarter Philippines that has been launched to help accelerate the growth of IT-BPM industry in the country and support the industry's expansion of voice and non-voice services particularly those currently in Metro Manila. 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: 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). Among the criteria for choosing NWCs is the provision of quality telecommunication infrastructure to support the daily operations of the BPM industries. Based on the initial list of IT-BPM, there are 31 IT-BPM companies operating in the provinces of Batangas, Cavite, Laguna, and Rizal as of October 2013 while there are 39 IT Parks existing in the region as of December 31, 2012.

Disaster prevention and mitigation is a vital element to inclusive growth. To establish a more responsive disaster preparedness system, the DOST developed the National Operational Assessment of Hazards (NOAH) program which seeks to reduce human casualties specifically from rain-triggered natural hazards. It has several components, some of which are already operational in the Calabarzon region, namely: (a) NOAH Hydromet Project, which involves mounting of automatic rain gauges (ARG) for tracking and recording of rainfall volume and duration in a given time; and water level monitoring system (WLMS), for flood monitoring and forecasting; (b) Hazard Notification, Dissemination and Awareness (HANDA) Project, which boasts of wide-area information dissemination of disaster-related announcements and feedback functionalities; and (c) LGU Information Dissemination System (LGUIDS) Project, which provides local residents an ICT-based approach that makes for immediate, wide coverage, and automated data collection and dissemination of information on weather, farm, and community news.

While the benefits of ICT in government cannot be disputed, there are several concerns about its success that need to be addressed and these are the following:

- Slow internet connection. At present, the Digital Subscriber Line (DSL), which has an internet speed ranging only from 128 Kbps to 3 Mbps, is the widely used type of internet access in of the country, including Calabarzon region. It should be noted that the successful roll-out of the several components under the Smarter Philippines requires faster and reliable internet connection for faster and reliable transmission of large amounts of data.
- Unavailability of internet access in rural areas. In Calabarzon, there are still LGUs without access to internet. Also, poor cellular coverage causing poor mobile phone reception



remains a challenge, particularly for communities located in rural and remote areas of Calabarzon.

- Increasing demand of IT-BPM industries for, not only quality telecommunication infrastructure as well as office spaces to support the industry's daily office operation

## Strategic Framework

Infrastructure development in the region has to be accelerated as one of the main catalysts for inclusive growth and enhanced regional competitiveness. The main strategies for accelerating infrastructure in the region are: (1) improving connectivity among centers and wedges while enhancing the role of corridor cities and municipalities; (2) ensuring all beneficiaries and stakeholders in Calabarzon have equal access to infrastructure services; and (3) increasing resiliency to climate change and natural disasters. Cross-cutting strategies are enumerated below.

### ***Improve connectivity among centers and wedges while enhancing role of corridor cities and municipalities including strategic linkages with surrounding regions***

- Promote intermodal transport system and develop and enhance existing major transport routes in the region
  - Construct new/extension of urban rail and expressway system specifically LRT Lines 1 and 2 Extension Projects, North-South Commuter Railway Project, and SLEX Toll Road 4 Project
  - Construct and improve roads leading to ports and tourist destinations such as DPWH-DOT Convergence Projects and construction of Calatagan Port Access Road
  - Accelerate construction of east-west roads such as the Cavite-Laguna Expressway Project
  - Improve existing roads and complete construction of major Calabarzon coastal roads such as Quezon Eco-Tourism Road and Lobo-San Juan Coastal Road, and implement bridge construction and replacement projects under Spanish-assisted programs
  - Rehabilitate, modernize and expand the PNR such as double tracking of PNR from Alabang to Los Baños
  - Construct missing rural road links and farm-to-market roads. The construction of the Umiray Bridge and access road connecting to the municipal hub is important in integrating Calabarzon and Central Luzon regions.
  - Support the implementation of various transport infrastructure studies and plans including the Integrated Luzon Railway Study, High Standard Highway Master Plan, and Roadmap of Transport Infrastructure for Metro Manila and Its Surrounding Areas
  - Improve the RoRo terminal system and facilities as well as promote the full utilization of Calatagan Port and Batangas Port Phase II
  - Ensure quality telecommunication infrastructure and support the implementation of Smarter Philippines program and its components. Moreover, LGUs must be encouraged to support the implementation of e-governance

### ***Ensure all beneficiaries and stakeholders in Calabarzon have equal access to infrastructure services***

- Social infrastructures
  - Intensify and speed up rehabilitation and construction of hospital and school buildings through: (1) widening the implementation of the PPP approach in the provision of school infrastructure facilities; and (2) construction, repair and renovation of hospitals and Basic Emergency Maternal Obstetric and Newborn Care (BEMONC) facilities



- Water
  - Prioritize implementation of programs to provide and ensure supply of water among remote areas
  - Ensure adequate water supply in rice producing areas and related agricultural lands through rehabilitation and restoration programs for irrigation systems
  - Implement Integrated Water Resource Management
  - Protect and regulate water use and promote accountability and synergy among water-related institutions and stakeholders
  - Implement pro-active approaches to address climate change and water-related disasters
  - Develop new water sources like rainwater collection, waste water recycling and atmosphere/moisture capture
- Energy
  - Fully implement government's electrification programs focusing on rural households and sitios such as the Barangay Line Enhancement Program (BLEP) and the Sitio Electrification Program (SEP) to be completed by 2015
  - Construct new power plants, substations and transmission extensions to enhance sustainability and redundancy of power supply in the power grid as well as cushion impact of supply disruption during major maintenance power plant shutdowns
  - Continuously explore and develop potential renewable energy resources in the region by engaging SUCs and the corporate sector. Along this strategy is exploring off the grid RE power network sharing in adjacent areas through a system of fiscal incentives, i.e. income tax deductions for corporate sector sharing RE surplus into the power grid
  - Aggressively promote use of alternative fuel sources
  - Pursue research and development, and prototyping of new RE technologies and energy-efficient technologies
  - Integrate energy-efficient power sources for rural electrification, and develop and use cost-efficient and energy-efficient technologies for household and commercial/ industrial consumption
  - Intensify advocacy and promotion of energy audit practice and hire energy managers in business and government establishments for its implementation
  - Implement strictly energy labeling on electric appliances, tool and equipment
  - Support and push for the full implementation of the Renewable Energy Act
  - Implement and support electrification projects by tapping ER 1-94 fund for the remaining unelectrified areas of the region
  - Create and pursue avenues in collaboration with the private sector to implement energy-efficient and clean energy technologies in the region
  - Support initiatives on periodic monitoring and evaluation of energy policies, plans, and programs
- Solid Waste Management
  - Strictly monitor accredited haulers in dumping wastes and compliance to the Memorandum of Agreement regarding sanitary landfills and proper use of the facility
  - Assure efficient and standardized operations in the SLFs and MRFs by strengthening SWM capacity, practices, and operations of LGUs and ensuring DENR-EMB accreditation of SLFs

***Strengthen linkage of Calabarzon's infrastructure development with appropriate and effective spatial and DRRM and CCA strategies that will increase resiliency to climate change and natural disasters***

- Integrate DRRM/CCA strategies in infrastructure planning and design
  - Implement the DPWH Flood Control Master Plan for Flood Management and Laguna Lake Region



- Implement a policy that would require subdivisions and ecozone developers to construct flood retarding basins in large agricultural areas (for subsequent recycling and harvesting)
- Strengthen DRRM institutional mechanism and inter-local cooperation
- Formulate a regional flood control and management master plan to rationalize and harmonize the implementation of various flood control plans, policies and programs in the region
- Establish disaster mitigation infrastructures through flood mitigation priority infrastructures
  - Implement the Imus River Flood Mitigation Project (JICA-Assisted Flood Risk Management Project) and rehabilitate Manggahan Floodway
  - Assess the existing drainage and flood control facilities and conduct regular de-clogging of drainage catch basins and canals and dredge silted rivers and lakes and widen choke points in rivers
  - Construct/rehabilitate properly designed drainage and flood control facilities
  - Use Laguna Lake as a large catch basin to prevent flooding
  - Develop innovative ways to make water infrastructures resilient to the effects of natural disaster and climate change



## VI: Towards a Resilient and Inclusive Financial System

Resiliency and dynamism of the region's financial system is dependent on several factors such as institutions, policies, financial intermediation, and financial access. Through better risks management, better incentives, strong oversight, more access and transparency, the region is likely to achieve resilient and inclusive financial system. Given the above conditions supported by more capital and high liquidity, household and business confidence will increase thereby resulting to a more stable financial system.

### Assessment and Challenges

#### Banking system

The banking sector in the Calabarzon region remains to be the leading source of credit for the economy. The number of banks in the region increased over the three-year period, from 1,314 branches in 2010 to 1,406 branches in 2012 (Table 6.1). The increase in number of types of banks and its total assets could be attributed to growing number of financial service providers willing to do business in the region with rapid urbanization, more economic opportunities, and relatively high income of the population.

**Table 6.1 Banking Offices by Type, Calabarzon 2010 to 2012**

Type of Bank	2010	2011	2012
<b>Calabarzon</b>	<b>1,314</b>	<b>1,350</b>	<b>1,406</b>
Universal and commercial banks	479	521	553
Thrift/ savings banks	245	274	317
Rural and cooperative banks	590	555	536

Source: Bangko Sentral ng Pilipinas

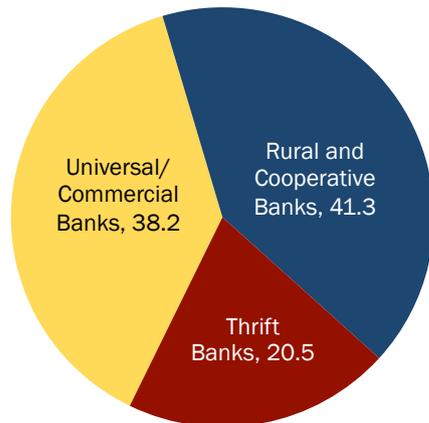
For the same period, it can be noted that the number of rural banks (RBs) and cooperatives decreased which may imply limited access to formal capital available to the marginalized sectors (i.e. farmers and fisher folks). The share of banking sub-groups in the region showed that though RBs and coops have the lowest asset share, these constitute about 41.3 percent of the banks in the region followed by the universal and commercial banks (UCBs) at 38.2 percent (Figure 6.1). The increasing presence of UCBs in the region provide a much promising banking services to the region's constituents catering formal credit for large businesses and establishments than those provided by other banking sub-groups.

Similar to performance of UCBs, thrift banks (TBs) showed increasing presence in the region with 22.7 percent increase from 2010 to 2012. The total assets of TBs accounted likewise got bigger by 20.5 percent in the same period. Both the increase in number and total assets of TBs imply growing importance of these banks in providing safety nets against consumer credit risks.

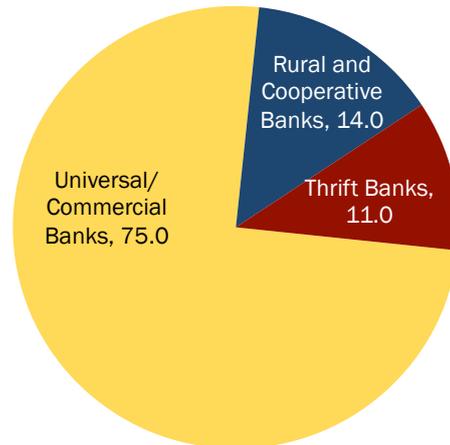
As of December 2012, the total assets of banks reached PhP 321.17 billion, where UCBs have the largest share at 75.0 percent, followed by TBs and savings banks at 14.0 percent, and RBs/coop banks at 110.0 percent (Figure 6.2).



**Figure 6.1 Banking Sub-groups and Asset Shares, Banks, Calabarzon, 2010 to 2012**



**Figure 6.2 Asset Shares of Calabarzon 2010 to 2012**



In terms of the region's bank density ratio (Table 6.2), it can be noted that though there are at least 10 banks per city/municipality in the region, provision of more access points is still a challenge as there are not enough banks per 10,000 adults and only one (1) bank per 1,000 square kilometer.

**Table 6.2 Bank Density Ratio, Calabarzon 2012**

Indicator	Distribution
Number of banks per municipality/city	10.0
Number of banks per 10,000 adults	Less than 1 (0.14)
Number of banks per 1,000 square kilometers	1.0

Source: Bangko Sentral ng Pilipinas

Among the challenges of the banking sector are the limitation on access points and their increasing concentration in urban centers only, thereby effectively discouraging capital market participation and access to business financing among the marginalized sectors and rural communities. Relatedly, stringent requirements discouraged most MSMEs and the informal sector in availing financial services. Another challenge is improving mobilization of financial resources into viable investment and savings mechanisms.

## Microfinance Services and Cooperatives

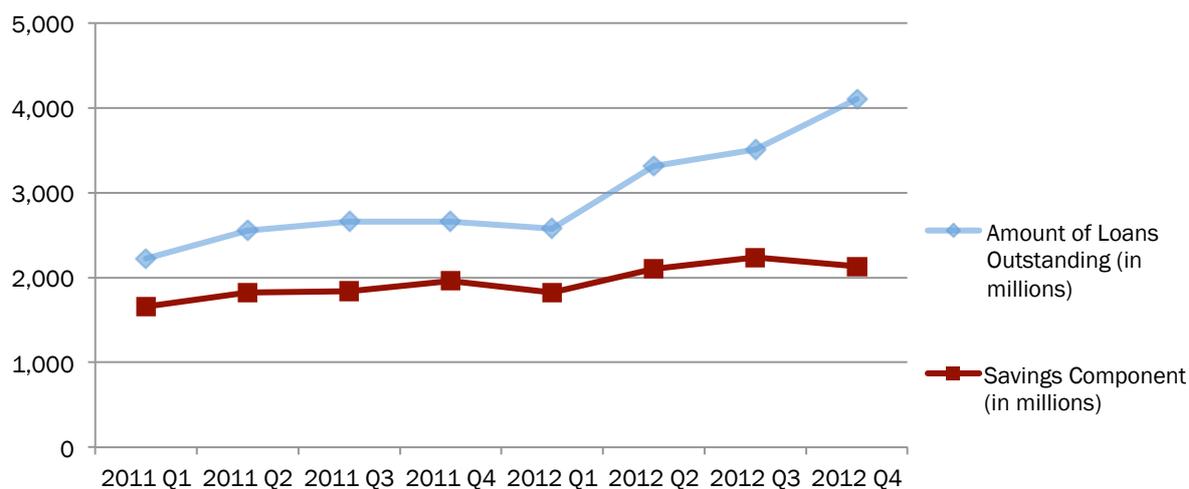
Among the different types of banks operating in the region during the period from 2010 to 2012, some 29-35 banks were engaged in micro-finance lending services. A total outstanding loan of PhP 31.6 billion was extended to more than 520,000 borrowers during the period. This represented a per capita loan availment of almost PhP 60,000 for each borrower. The increase in both the number of micro-lending assistance provided and the number of borrowers during the period showed that the challenge related to accessibility to financing options was recognized and being addressed by financial institutions in the region.

Considering the outstanding loans as compared to the savings component for micro lending services, almost the same trend can be observed for the two indicators from first quarter of 2010 to third quarter of 2012 except for the fourth quarter of 2012 where outstanding loans scaled up



and savings component declined (Figure 6.3). The good economic performance posted in the last quarter of 2012 prompted increase in expenditure and business expansion thereby decreasing savings and increasing outstanding loans. The general increase in savings indicated that it is sustained and improved during the period and in so doing enabling MSMEs to increase reliance on their savings in financing and expanding their businesses. Increasing savings component also enable MSMEs to survive economic shocks and emergencies and enable them to take advantage of good business opportunities.

**Figure 6.3 Outstanding Loans and Savings Component of Microfinance Services Calabarzon, 2010 to 2012**  
In PhP million



Source: Bangko Sentral ng Pilipinas

The decreasing trend of the number of banks providing micro-lending assistance is compounded by the decreasing number of cooperatives in the region. The number of cooperatives in the region generally contracted seven times from 931 in 2010 to 130 in 2012 (Table 6.3). Decline is generally observed among the cooperatives providing consumer, credit, multi-purpose, and producer services. Moreover, the shrink in the coops could be attributed to unsustainable financing options and low appreciation of borrowers to long term effects of micro-lending services.

Multi-purpose type of cooperative is way ahead of other types in the region comprising about 73.0 percent of the cooperatives, followed by credit cooperatives at 11.0 percent. The relatively high share of multi-purpose cooperative could be attributed to its functionality over those that are sector specific.

Generally, the micro-finance services and cooperatives are viable alternatives among the rural and marginalized sectors of the society. When formal banking is not accessible, these alternatives must provide necessary and efficient financing options. Thus, addressing this major challenge of providing and sustaining such services (which are usually inadequate if not lacking in far flung communities) is necessary to achieve financial inclusion. There is also a need for policy adjustment in terms of requirements for loan availment for all financial institutions as well as implementing and monitoring compliance to allotment of loans for the agrarian reform beneficiaries, farmers, and fisherfolks as stipulated in R.A. 10000 or the New Agri-Agra Law of 2009.



**Table 6.3 Number and Type Cooperatives, Calabarzon, 2010 to 2012**

Type of Cooperative	2010	2011	2012
Advocacy	0	1	0
Agrarian	0	2	1
Consumer	29	26	29
Dairy	0	0	2
Fishermen	0	0	1
Health Service	1	0	0
Credit	100	48	34
Marketing	15	18	14
Multi-purpose	676	15	23
Producer	32	17	11
Service	64	20	13
Transport	0	6	1
Water service	0	4	0
Workers	0	10	1
Federation	11	1	0
Union	3	0	0
<b>Total</b>	<b>931</b>	<b>168</b>	<b>130</b>

Source: Cooperative Development Authority

The consistent influx of remittance from overseas Filipinos (OFs) does not only keep the Philippine economy afloat but also serves as source of non-traditional investment inflows for the region. According to the National Statistics Office (NSO), Calabarzon is the top sending region of documented migrant workers with over 350,000 OFs in 2011. In 2010, NSO indicated that 16.0 percent of the region's population is working and residing abroad. Given the massive outflow of workers overseas, there is an enormous remittance that aggressively circulates in the region. For the period 2010 to 2012, the annual remittance received by the region is estimated at PhP120.3 billion.

During the period, the region was involved in mobilizing OFs' remittances toward local economic development through various efforts from the public and private sectors. Among its on-going initiatives are promoting investment package of big agri-based cooperatives in the region such as Soro-soro Ibaba Development Cooperative (SIDC) and Cavite Farmers Feed Milling and Marketing Cooperative (CAFFMACO); and the formation of the Pinoy World-wide Initiative on Investment, Savings and Entrepreneurship (PinoyWISE) Movement which aims to intensify financial education on both sides of migration corridors so that OF remittances will be linked to investments in home communities. This remittance mobilization scheme has been pilot tested and succeeded in investment missions held in Italy and UAE in 2010 and 2012, respectively.

The region's initiatives in mainstreaming financial education and investment mobilizations locally and abroad through programs directed to OFs and their families left behind enable the region to access more financial assets to support its development. However, the challenge is to provide financial education to the majority of the region's constituents not only to OFs and their families to promote and improve financial inclusion. Another challenge is to hurdle the limited resource mobilization system that will effectively channel the large OF remittances into viable and sustainable investment opportunities and savings mechanism. Further, improvement in database management system is necessary to fully determine the number of OF in the region, accounting not only the registered OFs but also the permanent migrants and the undocumented. Moreover, regional and even provincial disaggregation of OF remittances is prescribed with the view of linking remittance to investments in home communities.

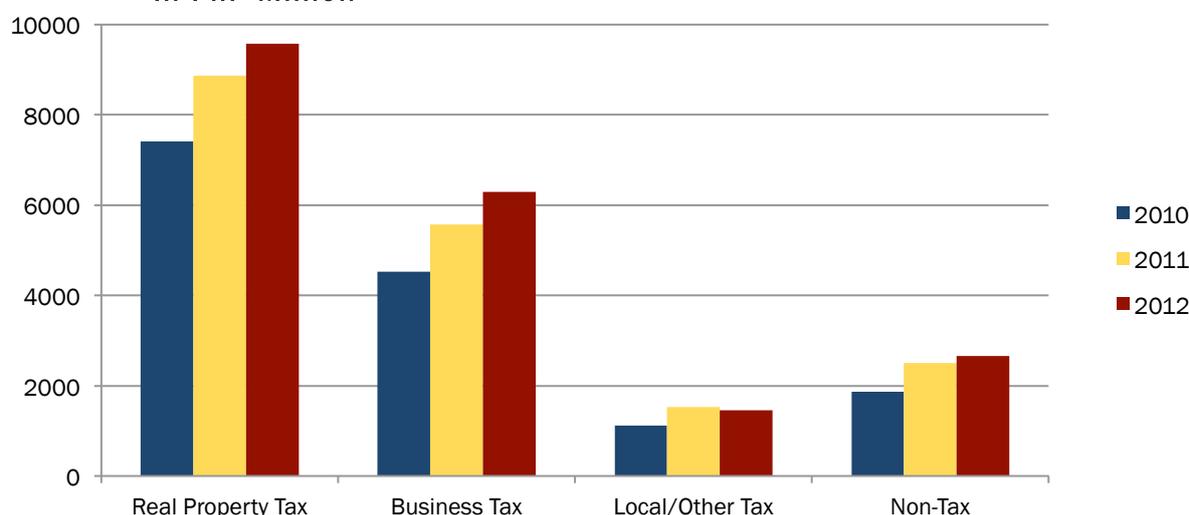


## Local Government Resource Mobilization

LGUs play critical role in the conceptualization and implementation of development initiatives at the local level. Hence, upgrading their income levels ensure more funds for economic development.

The income of local governments in the region exhibited increasing trend from 2010 to 2012. Real property tax income increased by 27.0 percent, while business tax by 29.0 percent, local/other tax by 33.0 percent and non-tax incomes increased by 31.0 percent during the period (Figure 6.4). The general increase could be attributed to the strengthening and implementation of Business Permits and Licensing System (BPLS) that paved way for a business friendly and responsive business process. Enhancement of the system and collections from delinquent tax payers also contributed to the increase in income of LGUs through various interventions of the Bureau of Internal Revenue (BIR).

**Figure 6.4 Local Government Tax Revenues, Calabarzon, 2010 to 2012  
In PhP Million**



**Source: Bureau of Local Governance Finance**

The income generated by LGUs from 2010 to 2012 is composed mostly of revenues generated from real property and business tax. Laguna is the highest earning province at 8.2 billion in 2012 followed by Batangas at 6.9 billion. Meanwhile, the provinces of Rizal and Quezon registered the highest growth in tax revenues from 2010 to 2012 at 36.7 and 36.2 percent, respectively (Table 6.4).

There were indeed general increments in the incomes of LGUs. However, there is still the challenge of increasing the collection further, considering that tax collection processes remain inadequate and inefficient. Moreover, the capability of LGUs to generate other sources of income outside their internal revenue allotments is limited.



**Table 6.4 Tax Revenues Generated by Type, Calabarzon, 2010 to 2012**  
In PhP Million

2010				
Province/Type	Real Property Tax	Business Tax	Local /Other Tax	Non-Tax
Calabarzon	7,309.8	6,301.2	4,485.5	4,642.5
Batangas	1,738.2	1,385.4	911.2	925.1
Cavite	1,452.1	1,186.6	1,075.1	1,163.0
Laguna	2,122.3	1,939.0	888.4	926.6
Quezon	925.4	867.4	793.1	809.7
Rizal	1,071.8	922.8	817.8	818.1
2011				
Calabarzon	9,303.5	8,212.1	5,998.0	6,032.3
Batangas	2,122.7	1,752.1	1,237.6	1,254.6
Cavite	1,783.8	1,374.8	1,257.6	1,218.1
Laguna	2,593.4	2,532.3	1,239.1	1,279.1
Quezon	1,242.1	1,245.3	1,117.4	1,136.0
Rizal	1,561.5	1,307.7	1,146.3	1,144.6
2012				
Calabarzon	10,033.7	8,942.3	6,728.2	6,762.5
Batangas	2,268.8	1,898.2	1,383.6	1,400.6
Cavite	1,929.8	1,520.8	1,403.6	1,364.1
Laguna	2,739.5	2,678.3	1,385.2	1,425.1
Quezon	1,388.1	1,391.3	1,263.5	1,282.0
Rizal	1,707.5	1,453.7	1,292.3	1,290.6

Source: Bureau of Local Governance Finance

## Strategic Framework

To address the challenges among various financial systems in the region the following strategies should be pursued: (1) efficiently mobilize financial resources; (2) improve financial inclusion mechanism; and (3) strengthen and improve enabling environment for the financial system.

### Efficiently mobilize financial resources

To address challenges on efficient mobilization of financial resources:

- Review current relevant financial regulations aimed at determining 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 OF 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



To further enhance and strengthen LGU resource mobilization in the region:

- Improve and make more efficient revenue effort and collection through strict implementation of and compliance to local finance circulars
- Improve absorptive capacity of the agencies and LGUs through continuous capability building and financial education
- Implement continuously capacity building efforts to enable LGUs to find other channels of revenue aside from internal revenue allotment

## **Improve financial inclusion mechanism**

Continue to build, strengthen, and establish financial systems and institutions in the region in order to create more financial access points that deliver financial services at affordable cost to all segments of society

- Implement policy adjustments to provide ease of access to financial services and enable marginalized sectors and MSMEs in participating in capital markets and expanding their businesses
- Promote savings generation at the regional level 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 local and abroad to promote investment opportunities in the region's value-added enterprise ventures, real estate and housing, business process 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 to 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

Given the limitation on the basis of total OF per region, there is a need to

- Advocate for disaggregation of OF 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

## **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 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



## VII: Good Governance and the Rule of Law

Good governance fosters participation, ensures transparency, demands accountability, promotes efficiency, and upholds the rule of law in economic, political and administrative institutions and processes. It is a hallmark of political maturity but also a requisite for growth and poverty reduction, for there are irreducible minimum levels of governance needed for large-scale investment to occur and for social programs to be supported.

The cornerstone of good governance is adherence to the rule of law, that is, the impersonal and impartial application of stable and predictable laws, statutes, rules, and regulations, without regard for social status nor political considerations.

This chapter assesses the quality of governance in the region and identifies key challenges that constrain development. It lays down corresponding strategies to achieve good governance anchored on the rule of law, and provide an enabling environment for regional and national development.

### Assessment and Challenges

#### Effective and transparent governance practiced

Effective and transparent governance in the region were measured through (1) improved delivery of public services; (2) curbed corruption; and (3) enhanced information and participation in governance of citizens.

##### *Improved delivery of public services*

Delivery of improved and more efficient public services were done through policies and programs and projects implementation such as anti-red tape program; seal of good housekeeping and performance challenge fund for LGUs; results-based performance management system; adoption of the bottom-up based participatory budgeting and planning; and other systems to facilitate management, budgeting, and procurement services; and database development and management; among others.

##### *Anti-Red Tape Act and Report Card System*

Republic Act No. 9485, otherwise known as the Anti-Red Tape Act of 2007 (ARTA), stipulates the national policy to promote transparency, integrity, and accountability in government transactions. The Civil Service Commission (CSC) developed the ARTA Report Card Survey to generate feedback on compliance to the requirements of the said law particularly on service delivery performance through the provision in the Citizen's Charter.

The implementation of the ARTA facilitated the re-engineering of the systems and procedures to simplify and improve delivery of government's frontline services. It was also identified as one of the criteria in the Seal of Good Housekeeping that correspondingly resulted to 100.0 percent compliance. The majority of the regional line agencies complied with the stipulations of ARTA,



however, there is still a need to assess and further strengthen monitoring of the report card to ensure full compliance.

### ***Seal of Good Housekeeping and Performance Challenge Fund for LGUs***

The Seal of Good Housekeeping (SGH) for LGUs is in line with the government's commitment to aggressively scale up interventions and elevate the practice of governance that values transparency, accountability, participation, and performance into an institutionalized status. In 2011, some 89.12 percent of the LGUs were bronze SGH awardees. The assessment was focused on sound financial management and transparency and accountability on local financial transactions through the observance of the Full Disclosure Policy.

Some of the SGH recipient LGUs in 2011 were able to access the Performance Challenge Fund (PCF), a support fund to finance local development initiatives. The PCF monitoring system has to be institutionalized to ensure appropriate fund utilization specifically in aligning the fund into the priority needs for the development programs and projects and assessing its effectiveness as SGH performance-based indicator.

In 2012, LGUs coverage reached a high of 92.0 percent, in which 125 were awarded silver and 10 were awarded bronze. The silver awardees were those LGUs that met the requirements of: (1) good or excellent performance in ARTA Report Card Survey, (2) functionality of the bids and awards committees, and (3) full compliance to the posting of Philippine Government Electronic Procurement System.

### ***Business Permit and Licensing System (BPLS)***

BPLS, a joint undertaking of DTI and DILG, is intended to streamline business permit and licensing as a strategy to reduce the cost of doing business by cutting down the steps to secure business permits, reducing the processing time, bringing down the number of signatories, and the adoption of a unified application form.

The BPLS was rolled out in 2010 to 22 of 27 pilot LGUs in the region. Massive roll-out was conducted by the provinces in their respective LGUs in collaboration with the Calabarzon BPLS Regional Coordination Committee composed of DILG, DTI, Batangas State University, LGUs, and the Philippine Chamber of Commerce and Industry.

In 2012, there were already 141 out of 142 LGUs that completed and adopted the BPLS processes. The issues encountered during the implementation of the program were:

- high cost of the software needed to run BPLS
- coordination issue with other agencies to facilitate seamless processing of requirements
- insufficient funds in the conduct of training and workshops
- non-plantilla positions for BPLS offices in some LGUs
- non-receptiveness of some LGUs to changes

### ***National Economic Research and Business Assistance Center (NERBAC)***

The region through DTI pushed for the establishment of the NERBAC which provides entrepreneurs and investors with basic information on various business opportunities in the region. It serves as a one-stop action center that facilitates the processing of requirements necessary for the establishment of a business enterprise including availment of credit services.



For the period 2011 and 2012, more than 103,000 new and renewed business names were registered. In terms of investments generated, Business Name Registration (BNR) exceeded target by 24.0 percent in 2011 and 5.0 percent in 2012. For the two year period, a total of PhP 14.5 million investments were generated. Further, over 130,000 jobs were generated – 66,933 jobs in 2011 and 72,490 in 2012 – and this is about 1.4 times higher than the target set (Table 7.1).

**Table 7.1 Business Name Registration Accomplishment, Calabarzon 2011 to 2012**

Indicators	2011	2012
Business name registered	53,541	49,826
Investments generated (in million)	7.4	6.9
Jobs generated	66,933	72,490

**Source: DTI- National Economic Research and Business Assistance Center**

### ***Quality Management System (QMS)***

Executive Order No. 605 institutionalized the implementation of Quality Management Systems (QMS) in government to effect improvements and consistency of products and services with the International Organization for Standardization (ISO) 9000. The ISO 9000 is a set of criteria for quality management system commonly applied by private organizations to ensure that products and services consistently meet customers' expectations. The implementation of the EO reinforced the government's drive to improve citizen-focused public services among government entities at all levels.

As of first half of 2013, among the LGUs and NGAs conferred with ISO 9001 certificates at different core services were the province of Cavite, Tanauan City, municipality of Carmona, LTO IV-A and DTI IV-A including its provincial offices. While the certification to ISO 9000 is a continuing process, the challenge is for the entities to sustain and continually improve the QMS. It would also be a test to the Government Quality Management Committee through the DBM to push for the institutionalization of QMS requirements particularly in agencies which are in the frontline services to improve service delivery and strengthen public trust.

### ***Database and Statistical Development and Management System***

In line with the advocacy of the current administration to promote evidence-based policy and planning formulation, and program and project implementation and monitoring, the statistical systems and data generation initiatives were vigorously pursued. Aside from the usual survey conducted by the Philippine Statistical System, the Registry System for Basic Sector in Agriculture (RSBSA), an electronic compilation of basic information on farmers, farm laborers and fishermen and their respective households, farming and fishing activities database system has been introduced to help decision and policy makers in identification and formulation of significant policies and program for agricultural development.

Crime Victimization Survey (CVS) was also conducted as a rider survey to October 2012 Labor Force Survey, to generate data on both reported and unreported crimes such as vehicle theft, burglary, robbery, personal theft, sexual incidents, assault, and treat. Other significant statistics critical to the social and economic development of the region are the 2012 Census of Philippines Business and Industry and the 2013 Census of Agriculture and Fisheries. These statistics are critical as they reflect the region's performance levels, structures and trends of economic activities of the formal sector and the agriculture and fishery sector, respectively.



The challenge is for the statistical agencies to address the demand for data on information and communication technology, business process management, migration, trade and services, and the gaps on exports. The organization for the Philippine Statistical Authority (PSA) under the Philippine Statistical Act of 2013 provides for the centralization of data collection to enhance responsiveness of the statistical system.

At the local level, efforts to adopt the Community Based Monitoring System (CBMS) as common data generation instrument for local level statistics had continuously gained support from the local government units. The tool is aimed to provide sound planning basis and for the monitoring of the progress of attaining Millennium Development Goal. CBMS is implemented in 1,669 barangays, 46 municipalities and 7 cities and 3 provinces in the region. The adoption of the CBMS to the remaining LGUs is still a challenge as it entails additional resources on the part of the LGUs. Hence, there is a need to mobilize resources for the region-wide implementation of the CBMS.

The LGUs likewise installed and implemented software packages which increased efficiency in the delivery of different services such as the Real Property Tax System (RPTS), BPLS, and Land Registration System, among others.

### ***Bottom-up Based Participatory Budgeting and Planning***

The Bottom-Up Budgeting (BUB) was initiated in 2013 as an approach in formulating the budget proposals from the local to the national level, with strong participation from the basic sectors and civil society organizations to make the budgeting system more participatory and provide balance in identification of priorities. Specifically, the BUB approach incorporates in the budget of key departments the priority programs and projects identified by the LGUs. The funding requirements for the development needs of the LGUs were integrated in the Special Purpose Fund of the participating departments.

For 2013 implementation, there were 300 out of the 609 poorest municipalities nationwide which were identified and approved by the Cabinet's Human Development and Poverty Reduction Cluster (HDPRC) using the 2009 poverty data. For Calabarzon, 26 poor LGUs are among the focus areas for the BUB - 19 municipalities were from Quezon and seven from Rizal. The requirements for the release of funds amounting to PhP 317 Million include: compliance to SGH, conduct of the Public Financial Management and the inclusion of programs and projects in the LGU's annual investment plan.

### ***Philippine Government Electronic Procurement System (PhilGEPS)***

As part of the government's digitization initiative to improve transparency in the use of funds, the PhilGEPS was expanded and enhanced to enable electronic bidding and online payment of transactions. The NGAs and LGUs were highly compliant of the posting of procurement plan and announcement of bidding through the website. However, pilot testing of e-bidding for the DPWH is encountering delays.

### ***Advocacies on Good Governance***

The Human Rights-Based Governance has been continuously advocated as an approach to integrate human rights principles and standards in planning and delivery processes, as well as to apply the national and international human rights standards in decision-making, and implementation of programs and projects. On gender and development (GAD), the region promotes integration concerning men, women and children in the development plans, programs



and projects. Regional GAD convention has been conducted regularly since 2011 as a regional response to address the low performance on MDG 3 or promoting gender equality and women empowerment as well as achieving inclusive growth.

## **Curbed Corruption**

Various government-led initiatives were implemented across the country to curb corruption in government. These included implementation of the run after tax evaders program; improvement of internal control and audit systems; and promotion of business friendly environment.

### ***Run After Tax Evaders (RATE)***

The implementation of the Run After Tax Evaders (RATE) program, initiated by the Department of Finance and Bureau of Internal Revenue (BIR), has been intensified. RATE aims to investigate and prosecute individuals or corporations engaged in tax evasion and other criminal violations of the National Internal Revenue Code of 1997. Along with the tax mapping being conducted to determine compliance of tax payers, the BIR has continuously improved its database and e-transaction initiatives.

Other challenges faced related to tax generation were the need to intensify access to information among government agencies and LGUs, poor signal problem on far-flung areas which led to failure to register in Mobile Revenue Collection Officers System (MRCOS), inaccurate declaration of income in some LGUs' licensing offices, and non-issuance of receipts among business establishments.

### ***Internal Control System (ICS) and Internal Audit (IA)***

Strengthening of internal control systems (ICS), internal audit (IA) in government, and the government integrated financial management information system (GIFMIS) were partially implemented in the region through DBM. The creation of the Project Management Office (PMO) for the GIFMIS had been delayed since its approval in the latter part of 2012. To strengthen internal control systems and internal audit in government, a Trainers' Training Manual on the Philippine Government Internal Audit Manual (PGIAM) to be crafted by BLGF, DOF, and COA was deemed necessary.

### ***Local Development and Competitiveness Index***

The region's efforts to promote a business friendly environment were reinforced with the creation of the Regional Competitiveness Council (RCC). The RCC is tasked to coordinate the initiatives to enhance competitiveness as well as to spearhead the conduct of the Local Development and Competitiveness Index (LEDCl) Survey in the region. The LEDCl served as a diagnostic tool to assess the level of competitiveness of the local government units based on 30 indicators measuring economic efficiency and dynamism, governance efficiency and infrastructure availability and quality. The result mirrored the ease of doing business in the locality based on global standards.

For 2012, RCC had piloted the implementation of the LEDCl instrument to selected cities and municipalities including the cities of Antipolo, Bacoor, Batangas, Lipa, Lucena, and Santa Rosa; the municipalities of Carmona, General Trias, Rosario, Sta. Cruz, Los Baños, San Pedro, Calaca, Santo Tomas, Nasugbu, Cainta, San Mateo, Taytay, Candelaria, Gumaca, and Pagbilao.



The result of the 2012 competitiveness index which covered 250 local government units across the country revealed that overall, Carmona and General Trias placed third and fifth, respectively, among most competitive municipalities in the country. With the competitiveness report, each LGU will be able to evaluate, benchmark and make necessary interventions to improve performance and meet local and global standards. However, the implementation of the LEDCI requires funds for the capability building and conduct of survey to cover at least first to third class municipalities for the remaining plan period.

### ***Citizens' access to information/participation in governance PAPs implemented***

The government has to convey to the public its programs, projects and activities (PPAs), budget and financial transactions through increased access to them. However, the systems and mechanisms to deliver effective and transparent governance called for an informed decision-making capacity to assess which information will help attain good governance. In essence, the services provided by the agencies shall always be disseminated to the public through various modes such as print, broadcast, and the internet, among others.

For the first half of the plan period, improved citizen's access to governance information were achieved in the region through the full disclosure policy, expansion of civil society organizations' engagement in participatory budgeting and rolling out of the business permit and licensing system, local government performance management system and advocacy related activities.

Calabarzon region, further, adopted strategies to promote government programs and projects through the different channels of communications. These include local TV and radio guesting of regional directors and local chief executives and coverage of important events in the region, newsletters, conduct of *talakayan* or dialogue among key development players, news and articles features in the Philippine Information Authority (PIA) website, and organization of Information Communicators Network for Development (ICON4D). The ICON4D which was initiated by PIA as a mechanism to ensure representation of the different RLAs and LGUs in terms of preparation and organization of advocacy related activities in the region.

The region also promoted inter-local cooperation among local government units to support cluster planning, sharing of common services and complementation of programs and projects implementation particularly those involving road network, flood control, coastal management, environment protection, and waste disposal system, among others.

### ***Full Disclosure Policy***

The RLAs in compliance to the transparency and accountability policy of the government posted financial and procurement transactions in their respective website. This holds true with the LGUs wherein 5 provinces, 17 cities and 125 municipalities posted financial transaction documents to the portal in annual, quarterly, and monthly basis. DILG field officers intensified efforts in ensuring that all the LGUs were able to comply with FDP policy. DILG, moreover, hosted the websites of the LGUs to comply with the FDP. However, a number of RLAs and LGUs have partially posted financial transaction documents due to intermittent internet connections.

### ***Expansion of Civil Society Organizations (CSO) Engagement in Participatory Planning and Budgeting and Service Delivery***

The strategies employed to promote public and private partnership include membership of the CSOs and private sector organizations in the regional and local bodies as well as participation in government processes such as planning, budgeting, and monitoring of public infrastructure



projects, and in the delivery of social services. To ensure CSOs' engagement in the development and consultation processes, measures to sustain and improve the quality of participation should be undertaken by the concerned government entities.

The region also supported volunteer programs as strategy to involve the participation of the private individual and communities to deliver social services particularly in remote areas.

### ***Local Government Performance Management System (LGPMS)***

The LGPMS is a web-based self-assessment tool for local governments. It is used to monitor the actual performance of the LGUs in line with the services they are required to deliver. The LGPMS consists of five performance areas namely: administrative governance; social governance; economic governance; environmental governance; and valuing the fundamentals of good governance. This system helped the LGUs strengthen transparency, accountability and other principles of good local governance and stimulate innovations among others.

For Calabarzon, Cavite province ranked first in the over-all performance index (OPI) for the provincial category and Batangas City for the city category. Meanwhile, Cavite ranked third, trailing behind Bohol (1<sup>st</sup> place) and La Union (2<sup>nd</sup> place), while Carmona ranked first among the municipalities, nationwide. Efforts to enhance the LGPMS from a self-assessment tool to performance oversight tool have been initiated to link the LGPMS with the DILG's award and incentive for local governments like the *Gawad Pamanang Lahi* and SGH.

## **Enhanced Access to Justice**

### ***Promotion of Alternative Dispute Resolution (ADR)***

Mechanisms to promote ADR were being implemented in the region, however speedy resolution of cases were not strictly observed. The challenges that ADR faced were: insufficient funds to pay for the prisoners that were proven not guilty/case dismissed; high costs involved in treating high profile prisoners, heavy case backlogs and resource constraints, continuing fragmentation of the justice system, and the need to strengthen economic justice.

## **Strategic Framework**

The sector seeks to achieve good governance and provide an enabling environment for regional and national development. Specifically, for the remaining plan period, the region's collective response to the challenges shall be geared towards more transparent governance, intensified participation and accountability among citizens and people groups, and strengthened rule of law.

### **Increased transparency, citizens' participation and accountability**

To increase transparency, public's access to information shall be enhanced with the implementation of programs and projects that would facilitate efficient use of modern technology such as website access and text blasts, virtual links between RLAs and LGUs, compliance to government procurement transparency requirement, and migration of government web hosting service.



CSOs' participation shall be improved and expanded through more active involvement in the development process such as in planning, budgeting, project implementation, and monitoring and evaluation activities. To facilitate accreditation of CSOs, the LGUs and RLAs shall establish and maintain database and enhance processes of registration. The former shall intensify participation of CSOs in the local and regional bodies and the latter shall ensure that all registered CSOs have met the qualification requirements of the government.

To promote accountability, the region shall pursue implementing policies, programs and projects to further enhance accountability of government officials and staff and promote transparency of governance practices for a more efficient and responsive delivery of services. The existing programs and projects that have tangible positive impacts shall be sustained.

The region seeks to further enhance the following strategies:

- Scale-up Seal of Good Housekeeping to include LGPMS, presence of Internal Audit Offices, improve functionality of local development and special bodies, and involvement in joint ventures with private sector organization and NGOs in delivering basic services
- Improve performance monitoring, evaluation and reporting system
- Promote incentive and rewards system for ARTA compliant agencies and entities and Seal of Competitiveness awardees
- Further streamline business processes and frontline services through establishment of Business One-Stop Shop
- Improve and intensify adherence of LGUs to the DILG-DTI Joint Memorandum Circular No. 1 series of 2010 or the Guidelines in Implementing the Standards in Processing BPLS in all cities and municipalities.
- Heighten convergence efforts and inter-local cooperation in the implementation and monitoring of programs and projects
- Simplify BUB processes and procedures
- Harmonize government ICT and computerization systems
- Improve database development and management through CBMS and other viable mechanisms and monitoring of Result-Based Performance Management System
- Promote knowledge sharing and best practices and benchmarking RLAs, LGUs and SUCs
- Review and improve the structure of the LGUs in terms of creation of plantilla positions for DRRMO, BPLO, HUMIS, and GAD focal point system among others
- Improve statistical system and promote evidence-based planning and decision-making
- Establish and operationalize Regional Government Center in Calamba City

The region shall also intensify anti-corruption efforts to sustain the gains in promoting a business-friendly environment through compliance with the following:

- Strictly implement government procurement transparency requirements
- Expand Full Disclosure Policy from provincial to barangay level
- Institutionalize LEDCI among all LGUs
- Promote new electronic system for collection and improve collection efficiency and quality through MRCOS and other initiatives of the BIR and Bureau of Customs

## Strengthened Rule of Law

Parallel with the strategies of the national government to improve the administration of justice, the region endeavors to enhance and strengthen labor management councils or grievance machineries and ADR system, promote human rights-based approach in development planning, program and project identification and development, enhance capability building for Lupon members, and strengthen the *Katarungang Pambarangay* system.



## VIII: Social Development

The social development sector focuses on ensuring an enabling environment for the Filipinos to attain inclusive growth and poverty reduction through improved access to quality basic social services delivery in education, health and nutrition, housing, social protection, and asset reform while keeping track in pursuing the Millennium Development Goals (MDGs) on poverty, gender equality, child health, disease control, universal primary education, improving maternal health, sanitation, and combating Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS). The sector's efforts, coupled with the region's vision of being the most liveable industrialized region in the country are guided by Social Contract of the President with the Filipino people in ensuring inclusive growth and equitable access to quality basic social services, especially by the poor and vulnerable.

### Education, Training and Culture

#### Assessment and Challenges

##### Basic Education

The region showed remarkable improvements on the quality of basic education through various reforms in the educational system such as the introduction of the K to 12 Basic Education Program which aims to develop lifelong learners and produce more productive and globally competitive graduates. This was further institutionalized through the enactment of RA No. 10533 also known as the "Enhanced Basic Education Act of 2013." The K to 12 program covers kindergarten and 12 years of basic education (six years of primary education, four years of junior high school, and additional two years of senior high school) to provide sufficient time for mastery of concepts and skills, develop lifelong learners, and prepare graduates for tertiary education, middle-level skills development, employment, and entrepreneurship.

The kindergarten net enrolment rate (NER) in the region increased from 59.7 percent during the school year (SY) 2010 to 2011 to 66.7 percent in SY 2011 to 2012, due to the mandatory implementation of universal kindergarten. The NER also surpassed the Department of Education's (DepEd) 2011 target of 58.6 percent. However, the elementary NER slightly decreased from 91.9 percent in 2010 to 89.1 percent in 2011 and fell short from its target of 90.1 percent for 2011. Meanwhile, the secondary NER slightly increased from 67.6 percent in 2010 to 68.7 percent in 2011 which is above the target of 65.2 percent for 2011.

The region also posted good performance in terms of internal efficiency indicators such as the cohort survival rate (CSR), completion rate (CompR), and school leaver rates for surpassing the targets set in 2012. However, further improvements on the results in the National Achievement Rate Mean Percentage Score (NAT MPS) is being prioritized by DepEd as it posted a performance below the national target set in 2011. NAT MPS results in the elementary and secondary registered 64.5 percent and 47.2 percent, respectively, which are more than six percentage points below the national target.

Table 8.1 indicates that the region has a high probability of achieving the 2015 MDG 2 targets on completion rate and cohort survival rate. However, the region posted low probability in attaining 2015 MDG targets on the elementary net enrolment rate and gender parity index both in the elementary and secondary education.



**Table 8.1 Key Performance Indicators for Kindergarten, Elementary and Secondary Public and Private Schools, Calabarzon SY 2010 to 2012  
In Percent**

Indicators/ School Year	2010 to 2011	2011 to 2012	2011 to 2012 Target	2015 MDG Target
<b>KINDERGARTEN</b>				
Net enrolment rate	59.7	66.7	58.6	
<b>ELEMENTARY</b>				
Net enrolment rate	91.9	89.1	90.1	100
Cohort survival rate	84.0	88.2	76.5	84.7
Completion rate	82.1	85.4	75.1	81.0
School leaver rate	3.8	2.5		
NAT MPS achievement rate	68.4	64.5	70.9	
Gender Parity Index		1.02		1.0
<b>SECONDARY</b>				
Net enrolment rate	67.6	68.7	65.2	
Cohort survival rate	83.8	87.7	79.4	
Completion rate	79.8	84.0	74.3	
School leaver rate	3.0	4.5		
NAT MPS achievement rate	46.5	47.2	54.6	
Gender Parity Index		1.11		1.0

**Source: Department of Education IV-A**

In line with the government’s commitment to increase investment in basic education, DepEd has built 32,127 classrooms, hired 43,658 teachers, and distributed millions of textbooks in the region from 2010 to 2012. DepEd’s continuing partnership with LGUs and various private sectors in the region also aids in bringing and keeping children in schools. The teachers performance showed improving competencies as they took aggressive capacity building programs like the implementation of human resource development and relevant training programs that were responsive to the needs of the students.

There are still numerous challenges besetting the region in the field of basic education. Low performance in the NAT MPS in both elementary and secondary levels remains a major hurdle in improving the quality of education. The attainment of quality education must also meet the need to provide quality teachers, learning resources, and classroom facilities and equipment. Improving efficiency in the education sector is also critical in sustaining the efforts made during the previous years as well as integrating technical-vocational skills in basic education.

The delivery of basic education services to diverse clientele and addressing regional disparities remain to be major concerns. For instance, the shortage of mobile teachers to reach the out of school youth (OSY) and the indigenous people (IP) in the region needs to be addressed in the coming years to achieve the “Education for All” (EFA).

With the passage of the K to 12 Education Program, the challenge remains in its strict implementation and the readiness of the school system to adopt the new curriculum. The two-year waiting lag for the colleges and universities upon the start of the K to 12 implementation shall also be addressed as a challenge. Thus, the effectiveness of the K to 12 education remains to be seen in the coming years. The challenges in the basic education call for a more intensified partnership with the private sector to maximize support to basic education.



## Technical Vocational Education and Training (TVET)

Enhancing the technical-vocational skills of the Filipinos has been the strategy of the current administration. In the region, the TVET enrolment and graduates posted a 5.4 and 49.0 percent increase from 2011 to 2012 and surpassed 2012 targets (Table 8.2). The number of skilled workers and certified workers assessed by TESDA showed continuous improvement from 2010 to 2012, registering an increase of about 26.0 and 35.0 percent, respectively. Though all but one indicator showed continuous improvement, the certification rate fell short by 3.0 percent from the 2012 target.

**Table 8.2 Performance of Technical Vocational Education and Training  
Calabarzon, 2010 to 2012**

Indicators	2010	2011	2012	2012 Target
Number of TVET enrollees	251,000	190,170	200,398	182,150
Number of TVET graduates	222,242	137,585	205,183	163,935
Number of persons assessed	78,200	100,159	98,752	90,164
Number of persons certified	59,879	80,126	80,682	76,640
Certification Rate (in percent)	77.0	80.0	82.0	85.0

Source: Technical Education and Skills Development Authority IV-A

The continuing implementation of the Training for Work Scholarship Program (TSWP) and Private Education Student Financial Assistance (PESFA), which aim to broaden the access to skills education, recorded a total number of graduates of 2,237 and 39,904, respectively in 2012 both surpassing that year's target.

The employability of TVET graduates were established with 69,712 and 105,362 employed graduates in 2011 and 2012, respectively. However, these still fell short for the 2011 and 2012 set targets. In 2012, the province of Cavite generated the highest number of employed TVET graduates with 26,964, followed by Laguna (24,690), Rizal (19,225), Batangas (17,911) and Quezon (16,572) (Table 8.3).

**Table 8.3 Employed TVET Graduates by Category, Calabarzon 2012**

Year	2012		
Province/ Sector	Self-employed	Wage-employed	Total
Calabarzon	52,113	53,249	105,362
Batangas	6,288	11,623	17,911
Cavite	7,182	19,782	26,964
Laguna	15,453	9,237	24,690
Quezon	13,781	2,791	16,572
Rizal	9,409	9,816	19,225

Source: Technical Education and Skills Development Authority IV-A

The increasing number of skilled graduates in the region provided employment opportunities that could result to more economic choices and improved quality of life in the region. Notably, there is an almost equal proportion of self-employed (49.5 percent) and wage employed (50.5 percent) TVET graduates in the region. This shows that aside from the available employment opportunities for the skilled workers, more skilled graduates are now venturing in putting up their own businesses, thereby developing their entrepreneurial skills in the process.



With regards to employed TVET graduates by sector, the most were employed in the information and communications technology-business process management (ICT-BMP) industry with 17,598, followed by tourism (13,911), electronics (13,619), and health, social and other development services (13,107) (Table 8.4). Bringing up the tail-end were graduates from the agri-fishery with 904, heating, ventilation and air conditioning (HVAC) (416), maritime (197), and footwear and leather goods (36) due to limited advocacy and employment opportunities offered from these categories. Greater employment in ICT-BPM, tourism and electronics showed responsiveness of the skills and capability enhancement of the graduates to the development prospects of the region in the services and manufacturing industries.

**Table 8.4 Employed TVET Graduates by Sector, Calabarzon 2012**

Sector	Cavite	Laguna	Batangas	Rizal	Quezon	Total
<b>Total</b>	20,105	16,912	12,566	11,939	22,395	83,917
<b>Automotive</b>	379	754	602	95	1,001	2,831
<b>Construction</b>	4,768	699	1,561	310	1,451	8,789
<b>Metals and engineering</b>	488	1,614	584	951	1,306	4,943
<b>Heating, ventilation and air-conditioning</b>	34	126	95	45	116	416
<b>Electronics</b>	7,629	1,234	1,386	186	3,184	13,619
<b>Agri-fishery</b>	-	-	767	-	137	904
<b>Processed foods and beverages</b>	56	411	115	253	314	1,149
<b>Tourism</b>	702	3,366	3,844	2,739	3,260	13,911
<b>Health, social and other development services</b>	977	2,527	985	3,274	5,344	13,107
<b>ICT</b>	466	5,066	2,627	4,002	5,437	17,598
<b>Aviation/land transport</b>	-	1,050	-	-	362	1,412
<b>Maritime</b>	-	-	-	7	197	204
<b>Garments</b>	4,606	65	-	41	286	4,998
<b>Footwear and leather goods</b>	-	-	-	36	-	36

Source: Technical Education and Skills Development Authority IV-A

Despite positive gains in TVET enrolment and graduates, the challenges remain in the low assessment rate, and limited number of assessment centers and assessors for in demand qualifications especially in the rural areas. There was also a decline in the number of students taking agribusiness courses. This could be attributed to the lack of awareness on its employment options and the limited schools offering the course.

On the other hand, there was difficulty in filling job vacancies due to shortage of applicants with the right competencies and qualifications for the job. If the present trend continues, it is expected that total number of unemployed TVET graduates in this area will increase in the succeeding years. Furthermore, linking the industries' demand to the skills/TVET institutions should be addressed in anticipation of the growing industrialization in the region.



## Higher Education

The region's performance in higher education showed continuous improvement in promoting quality education as the number of accredited programs, Center of Excellence Programs and Center of Development Programs increased from 2010-2012 (Table 8.5). In pursuit of intellectual growth and upgrading the competencies of the higher education teaching force, from 2010-2012, there was an increase on the number of Faculty with Master's Degree and a slight decrease on the number of faculty with Doctorate Degree. The granting of scholarships and student financial assistance to poor but deserving students remain to be the government's strategy to promote greater access to education and training. There were a total of 15,214 students qualified from the Students Financial Assistance (STUFAP) from AY 2010 to 2012.

**Table 8.5 Higher Education Statistics, Calabarzon 2010 to 2012**

Indicators	AY 2010 - 2011	AY 2011 - 2012
Number of accredited programs	194	301
Center of Excellence programs	8	11
Center of Development programs	6	10
Faculty with MS/MA	5,362	5,774
Faculty with PhD	1,442	1,375
Students with STUFAP	6,423	8,791

Source: Commission on Higher Education IV-A

With the region's potential of being the country's industrial hub, more schools have offered degree programs that are relevant to the demand. Thus, from 2011 to 2012, 31.6 percent of the higher education graduates were from business administration courses, followed by IT (17.6%), and engineering and technology (12.5%) (Table 8.6).

**Table 8.6 Number of Graduates by Discipline Group, Calabarzon, 2011 to 2012**

Discipline	Total	Share (in %)
Business administration and related courses	16,622	31.6
IT related discipline	9,275	17.6
Engineering and technology	6,557	12.5
Education science and teacher training	6,520	12.4
Medical and allied courses	5,831	11.1
Other disciplines	7,855	14.9

Source: Commission on Higher Education IV-A

Some notable challenges faced in the higher education are the increasing cost of tuition fees, not only in the tertiary education but also in graduate studies, and the limited scholarship programs offered in the region and even outside the country. Also, some state universities and colleges (SUCs) in the region still lack classrooms and facilities to accommodate more students. Moreover, matching the degree programs offered by the SUCs and higher education institutions (HEIs) with the demand of the industry remains a challenge.



## Strategic Framework

The strategic framework to continually improve the quality of basic education in the region is anchored in the national agenda of providing equitable and accessible education for all. Thus, the region will implement strategies, policies, programs and projects that will (1) ensure that every Filipino has access to complete basic education; (2) effective and efficient delivery of basic education services via quality teaching force; (3) ensure that every Filipino graduate of complete basic education through the K to 12 program and is prepared for higher education, employment and entrepreneurship; and (4) align HEIs programs with the regional development goals and industry needs.

### ***Ensure that every Filipino has access to complete basic education***

In ensuring that all children will have access to basic education regardless of location and ethnicity, the following strategies will be implemented:

- Institutionalize child mapping vis-à-vis child find policy through the Pro-active Child Mapping which will include Muslim pupils, Indigenous People (IPs) and Special Education (SPED) learners
- Implement programs that will enhance quality of basic education
  - Every Child a Reader Program
  - Strengthen science and math education through special science classes and enhanced science and mathematics curriculum
  - Special program for the arts, journalism, and foreign languages
  - Operationalize and enhance of co-curricular and extra-curricular activities thru athletic, youth in environment associations, boy/girl scout among others
- Scale up efforts to provide high quality education appropriate for the context and cultural heritage of the pupils (i.e. Muslim and IPs)
- Improve the efficiency in the education sector by sustaining the efforts made during the previous years as well as integrating technical-vocational skills in basic education
- Improve and expand learning resources and classroom facilities/equipment
- Promote access to education through formal and informal channels on a long term basis and ensure the availability of educational materials
- Implement different approaches for special categories of children
- Expansion of the self-sustaining community-based Early Childhood Care Development (ECCD) and strengthen home-school partnership
- Eliminate gender disparities in primary and secondary education by ensuring that both sexes will have equal access to quality education

### ***Effective and efficient delivery of basic education services via quality teaching force***

To further improve the quality of the teaching force in the region, aside from giving the teachers various scholarships and opportunities to pursue higher education, the programs identified will:

- Intensify implementation of human resource development and training programs to make the teaching force be more responsive to the organizational needs and manpower requirements
- Adopt team-based delivery of functions and the needs-based capability building to promote cooperation and enhance the competency of the teaching force
- Intensify partnership with the private sector to maximize support to basic education

### ***Ensure that every Filipino graduate of complete basic education through the K to 12 Program and is prepared for higher education, employment, and entrepreneurship***

- Fully implement K to 12 program to further improve the quality of education with the integration of technical-vocational skills in the basic education



- Upgrade competencies of the teaching force on the two-year lag period and prepare their application to be a “K to 12 ready” institution
- Implement Alternative Delivery Modes/Alternative Learning System
- Strengthen Private-Public-Partnership (PPP) programs/projects/activities similar to the Public School Building Infrastructure Program (PSIP)

***Align HEI and TVET programs with the regional development goals and industry needs***

- Foster alliance between the academe and industry thru institutionalization of the service management program (SMP) and provision of the on-the-job training (OJT). These strategies can address the gaps between the academic and on-the-job knowledge. This will also help the students become familiar with the career that they would undertake. This partnership can also address huge training expenses for both the companies and the academe.
- Increase support to TVET graduates specially in promoting entrepreneurship as viable alternative source of income and employment
- Devise effective ways and strategies to increase TVET assessment rate
- Upgrade the higher education teaching staff in delivering quality education that will match the needs of the industry thru increased access to scholarship grants/programs that are in sync with the demands of the industry
- Intensify linkages and networking with different institutions locally and internationally, such as student scholarship programs and exchange programs especially for the poor but deserving students
- Vertical integration in some SUCs to further improve the quality of the teaching force
- Re-examine the proposed amalgamation of SUCs in the region and identify possible complementation strategies
- Increase funds from the national government and support from LGUs in construction and improvement of school buildings and facilities

## Health and Nutrition

Based on the MDG targets, the region posted a high probability of attaining MDG 7 which is the proportion of the population with access to safe water and sanitary toilets as these have already surpassed the 2015 targets (Table 8.7). These were made possible through the strong support of the government to the use of sound approaches towards improving sanitation and water supply with affordable yet effective and environment-friendly technologies.

Meanwhile, the region has to step up its efforts to reduce the children under five years old and infant mortality rates (MDG 4), prevalence of underweight children (MDG 1), maternal mortality (MDG 5), tuberculosis (TB) mortality rate and increasing prevalence of HIV/AIDS (MDG 6). While the number of HIV cases had been decreasing rapidly due to early detection and willful admittance of the victims to special health facilities, of vital concerns are unreported cases which are perceived to be rising.

A comparison of data on underweight, stunting, and wasting among pre-schoolers and schoolchildren was made during 2008 and 2011 (Table 8.8). The region registered a decrease in the prevalence rate of underweight children (0 to 5 years old) by 1.7 percent, from 16.5 percent in 2008 to 14.8 percent in 2011. In terms of stunting, the regional prevalence rate increased by 2.6 percent, from 24.8 percent in 2008 to 27.4 percent in 2011. With regards to the prevalence rate for wasting, the region registered a steady 6.5 percent from 2008 to 2011.



**Table 8.7 Health Indicators in Calabarzon, 2012**

Indicator	2012	2015 Target
Under 5 mortality rate (per 1,000 live births)	7.9	1.3
Infant mortality rate (per 1,000 live births)	7.5	3.7
Prevalence of underweight among 0-5 children (in percent)	8.2	4.5
Percentage of 1 year old children fully immunized (in percent)	59.5	100
Maternal mortality ratio (per 100,000 live births)	39.0	9.7
Contraceptive prevalence rate (in percent)	54.1	80.0
Prevalence of HIV/AIDS among high risk groups (in percent)	13 59 cases as of June 2013	
Proportion of population with access to safe water supply (in percent)	95.0 (2009)	86.5
Proportion of population with access to sanitary toilet (HH in in percent)	83.8 (2009)	83.8
Malaria mortality rate	0.01	0.75
Malaria morbidity rate	14/100,000 population	62/100,000 population
Proportion of births attended by health professional (in percent)	94.0	100.0
Facility-based delivery (in percent)	57.0	
TB Mortality Rate (per 100,000)	6.2	0.0
TB cure rate (in percent)	79.0	85.0

Source: Department of Health - Center for Health Development IV-A

**Table 8.8 Prevalence of Malnutrition among Children 0 to 5 years old, Calabarzon, 2008 and 2011  
In Percent**

Underweight		Stunting		Wasting	
2008	2011	2008	2011	2008	2011
16.5	14.8	24.6	27.4	6.5	6.5

Source: National Nutrition Council IV-A

Also, in the period from 2008 to 2011 the region's prevalence rate of under-nutrition was relatively lower than other regions except CAR and Central Luzon regions. It was observed that there was also an increasing trend on the prevalence of under-nutrition among pregnant women and lactating mothers. The following causes attributed to the increase in the incidence rate: a) lack of program sustainability; b) poor dietary habits; and c) lapses in monitoring and evaluation. Over-nutrition is also increasing among children and is at a high level among adults.

Notably, Calabarzon was the region with highest number of bottle-fed children from 0 to 23 months which is at a high 58.7 percent compared to national average of 44.7 percent in 2011. The region was also the second lowest to exclusively breastfed children 0 to 5 months which was at 3.1 percent compared to the national average of 48.9 percent. The rising number of mothers joining the workforce in the region was one of the major contributory factors to this.



The major causes of morbidity in the region were acute upper and lower respiratory tract diseases and hypertension, while the major causes of mortality were diabetes Mellitus, genito-urinary disorders, and accidents.

There are several challenges besetting the region in terms of health and nutrition. Reaching the MDG targets primarily on infant and maternal mortality rate is threatened due to inequities in child and maternal care especially in the rural and geographically isolated areas. The slow reduction on infant and maternal mortality rates can be attributed to poor health practices, limited access to the right information, financial constraints, geographical barriers, and weak mother and child service delivery systems, among others.

Under-nutrition is still a serious challenge in the region and its occurrence may result to mental and physical development issues that are often irreversible during the first two years of a child impairing them for life and leaving them with lower chances of finishing school and becoming highly-productive adults (UNICEF, 2011). During the past years, reaching the MDG target of reducing the number of underweight children was slow due to inadequate food on the table, poor feeding and care practices, poor health conditions of pregnant and breastfeeding mothers, lack of access to health services and unsanitary conditions. Moreover, consumers tend to make unhealthy choices due to massive advertising of non-nutritious food including junk foods, fast-food diets, highly processed instant food, high-sugar drinks, and cigarettes that are very accessible to almost everyone.

On the health care delivery system, there is still limited access to health facilities in rural communities in the region especially in IP areas where there are only limited health products provided for nourishment. Since the devolution of power to LGUs, political issues became a challenge in the delivery of health services especially during change of assignments during turnover. Issues on fund appropriation and non-compliance to health standards and practices still persist in the region. The region is also experiencing fast hospital personnel turnover and difficulty in hiring dedicated and full time laboratory staff, doctors and nurses due to financial lure of working abroad. In addition, not all hospitals are active in the Philhealth TB Treatment through the Directly Observed Treatment Short course strategy (DOTS) package, the shortest and most effective internationally accepted treatment protocol for tuberculosis.

On infectious and degenerative diseases, the threat of dengue outbreaks in the region is a cause for alarm because the number of dengue cases was reported increasing every year. Likewise, the threat of emerging diseases such as the multi-resistant strains of bacteria and other viral flu still looms in the region. Efforts were undertaken to address the limited community participation in preventing the outbreak and in the locals' capacity to respond during the onset of these diseases.

## Strategic Framework

***Ensure equitable access to primary health and nutrition services through a responsive and universally accessible health care system and the achievement of better health outcomes in the region***

In order to provide equitable and broad access to quality health care services, the government must be able to deliver efficient and accessible health care services through the collaboration of the national government, LGUs, civic organizations, and private sector. They shall act in synergy in the implementation, monitoring and investment for the strategic interventions with special focus on health and nutrition related MDGs.

- Identify and prioritize key areas for the delivery of health and nutrition services. The MDG indicators with low probability of attainment must be improved to medium or high by 2015 (Annex A: Calabarzon MDG Scorecard and Targets).



- Identify potential partners and active networking with private and civic organization for complementation of services and resources
- Establish breastfeeding rooms in the offices per Expanded Breastfeeding Act
- Continuous conduct of Nutrition Service Caravan in nutritionally deprived municipalities
- Continuous implementation of the TB DOTS Program and strong multi-sectoral collaboration in TB Control with the availability of cheap generic medicine
- Provide micronutrient supplement and fortified foods in nutritionally depressed areas

***Develop accurate and timely health and nutrition information system that will enable individuals, families and communities manage their health and guide the government to craft enabling policy agenda***

Seamless access to health information in the region down to the barangay level will increase the capacity of all stakeholders to address their health and nutrition concerns, and capacitate the key agencies and local government to manage the health security risk in their respective areas.

- Conduct of pro-breastfeeding campaign and nutrition fora in all of the provinces
- Adopt and observe nutritious and health-promoting menus in canteens and catering services in the region
- Disseminate and advocate National Nutrition Survey (NNS) results and MDG targets to local chief executives
- Recognize and incentivize LGUs with outstanding performances and innovative nutrition programs and activities
- Document good practices and innovative nutrition activities of LGUs to serve as models in other areas
- Support and promote policy agenda requiring manufacturers to produce products with less chemicals that are detrimental to human health
- Encourage SUCs and HEIs in the region to include more research agenda on health and nutrition
- Support the implementation of existing laws related to health and nutrition through aggressive and regular information and education campaigns

***Improving the resiliency of the region against health security risks and threats***

The region must always be prepared to meet various health security threats. The capacity of key government agencies and LGUs must be increased to manage health security risks following natural and human-induced disasters, emerging and re-emerging diseases, food safety-related events, disease outbreaks, and health impact of climate change.

## Population and Social Protection

### Assessment and Challenges

Per 2010 Census, Calabarzon has a population of 12.61 million people, the largest of all the regions in the Philippines and the second most densely populated region next to NCR. Cavite was the most populous province in the region at 3,090,691 followed by Laguna with 2,669,847, Batangas with 2,377,395, Rizal with 2,484,840, and Quezon with 1,740,638. Due to proximity to NCR, the two leading provinces in out migration are Cavite and Rizal while Quezon due to its distance to NCR had the least outmigration. With regards to population density, the region has 758 persons per sq. km., Cavite and Rizal have population density of 1,950 and 2,101 persons per sq. km., respectively. Laguna, previously ranked second in terms of population, recorded a 1,392 persons per sq. km. This could be attributed to lower birth rates and slowing of influx of population from NCR. Batangas had 763 persons per sq. km. while Quezon was sparsely populated at 225 persons per sq. km. Average household size for the region is five persons per



household. Based on the 2010 Census the region has equal distribution of sexes. The average population growth rate (AVGR) from 2000 to 2010 was 3.1 percent.

About 356,000 overseas Filipino originated from Calabarzon. It should be noted that the OFs are among the principal contributors to the regional and national economy in terms of remittances. Moreover, this also implies that thousands of OF families are left behind and bear social costs. A crucial challenge that the region faces on the population management are the influx of migrants especially from the other regions in quest of employment opportunities. The situation has caused a strain on the LGUs' economy in terms of provision of social services and available resources and stiff employment competition between the local populace and the migrants. The recent disasters and conflicts in the Southern Philippines made the region the most attractive to relocatees and internally displaced persons. Concomitant with the heavy influx of migrants were peace and order problems and environment degradation due to human activities.

Based on NSCB data, the poverty and subsidence incidence among families in the region displayed an increasing trend from 2006 to 2012 despite the improvement of the regional economy in recent years. Among the five Calabarzon provinces, high poverty and subsidence incidence were observed in the Quezon province.

The Pantawid Pamilyang Pilipino Program (4Ps) was launched in 2008 as a poverty reduction strategy that provided cash grant to poor households (HHs) with pregnant women and children 0 to 14 years old on the condition that they comply with specific conditions on health, nutrition, and education. It was also implemented in four focus municipalities in Quezon province - Buenavista, San Francisco, San Andres, and San Narciso. The targets increased annually from 2010 to 2012, where a total of 169,332 HHs were enrolled in the program.

Also, the Social Pension for Indigent senior citizen was also implemented in line with the fulfillment of the obligation of the government to protect the most vulnerable sector through social protection and for the full compliance to the Expanded Senior Citizens Act (RA 9994). The social pension prioritizes senior citizens 80 years old and above where each beneficiary receives a monthly stipend amounting to five hundred pesos to augment the daily subsistence and other medical needs of the indigent senior citizen subject to review every two years by Congress in consultation with the DSWD.

Moreover, program like the *Payapa at Masaganang Pamayanan* (PAMANA) Pillar 2, likewise facilitated the delivery of basic services at the community level through community driven development and community livelihood interventions. This program also helped in shaping families and communities by concentrating on health, education, and livelihood programs.

Though the region has been successful in pouring in efforts to help the poor and the vulnerable, there are still challenges that need to be addressed to fully protect them. For instance, child labor is becoming a major concern in the region (Table 8.9). More than 1 in 10 children or about 495,000 children ranging from 5 to 17 years old in the region are working, while 203,000 children were engaged in hazardous child labor. Child labor, in this context, refers to the working children who have worked in hazardous environment regardless of the number of hours they spent at work (hazardous child labor) or those who have worked for long hours (20 hours a week for children 5 to 14 years old and more than 40 hours a week for children 15 to 17 years old). As of 2012, some 972 children were removed from child labor and provided with educational assistance while 107 parents of child laborers were provided with skills training and livelihood assistance amounting to PhP 689, 040.00. It should also be noted that Tagaytay City has emerged as the grand winner in the Search for the Most Child-Friendly City/Municipality in the country.



On the supply side, there has been a shortage of social facilities, making it more difficult to take the initial steps to resolve social inequities in the region. Frequent natural disasters and calamities further decreased the limited resources resulting to resettlement/relocation problems. In some areas, lack of LGUs' support on the implementation of various social protection programs further put the residents on the verge of poverty by using the programs for their own political advantage. There were also reported cases of human trafficking and as of January 2013, some 124 cases of kidney vending and 15 cases of sexual exploitation/prostitution and a number of OF in distress were reported.

**Table 8.9 Number and Share of Children 5 to 17 Years Old Engaged In Child Labor, Luzon, 2011  
In Thousands**

Region	Number	Share
<b>Philippines</b>	2,993	100.0
NCR	134	4.5
CAR	70	2.3
Region I	143	4.8
Region II	137	4.6
Region III	316	10.6
Region IV-A	203	6.8
Region IV-B	170	5.7
Region V	304	10.2

Source: National Statistics Office IV-A

## Strategic Framework

### *Strictly implement RH Law and increase access to family planning methods*

Rapid population growth puts pressure on the natural environment. To address this, all stakeholders should combine their efforts to remove the remaining barriers that prevent access to family planning services. This maybe attained by a strong information and education campaign as well as the provision of reproductive health and family planning services in a much wider scope. When implemented, the Reproductive Health Law guarantees universal access to methods of contraception, fertility control, sexual education, and maternal care without bias and ensuring that all effective natural and modern methods of family planning are medically safe and legal. There shall also be partnership with relevant government and non-government institutions in instilling Responsible Parenthood (RP) among couples, particularly those with unmet needs per National Housing Targeting System (NHTS) survey, and the 4Ps beneficiaries.

### *Towards a gender sensitive industrialized region*

Aside from the vision of becoming the most liveable industrialized region, both sexes regardless of their gender attributes and inclinations shall be given importance towards the improvement of their political, social, economic, and health status. To sustain human development, both sexes shall be guaranteed equal rights and equal status as these entail enhancement of their own gender awareness and capacities. The government has also started putting the GAD lens (engendering) on all modules, training materials, plans, and budgets.

### *Set up social protection convergence mechanisms at all levels*

A convergence strategy can be used in the implementation of social protection programs that will seek cooperation and assignment of roles among agencies and stakeholders. Convergence of



social protection programs of the DSWD and other 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 first establishing an accurate database of the target clientele. Once this convergence mechanism is in place, it will synchronize and harmonize program implementation/operations across sectors and institutions. The bottom-up budgeting approach can takeoff from this convergence.

### ***Intensify broader access to social services***

Access to social services should take place not only in the region's urban areas but also in the rural areas where a significant number of the poor people reside. Apart from building economic opportunities, people from the rural areas shall have access to basic needs and essential services. For instance, social services for health and education are complementary support to building of livelihood sources in rural communities. In essence, development must materialize not only in the ability of people to engage in productive activities but also on building their physical capability to pursue them. Thus, development of full human potential and improvement in the overall quality of life shall therefore go hand-in-hand. Other strategies include the following:

- Strengthen SEA-K and CIDS program
- Strictly implement accessibility law
- Develop enhanced social protection programs such as social security, workmen's compensation, health insurance, and housing both for the workers in the formal and informal sectors
- Encourage employers to institutionalize non-wage benefit scheme
- Pursue Senate Bill 3309 and House Bill 4484 or the "Magna Carta of the Poor;" unnumbered and consolidated bill "Pantawid Pamilyang Pilipino Program" seeking to ensure that the poorest of the poor particularly the pregnant women and children 0 to 14 years old are given the necessary health and education assistance; House Bill No. 6690 "An Act to Combat Abuse against Senior Citizens and Enhance Penalties Thereof and for other purposes" or The Senior Citizens Safety Act

### ***Accurately track regional poverty statistics***

Inclusive growth translates high investments in creating high quality job, equal access to education, health and other social services in order to broaden the reach of the growth process, particularly among the poor. By effectively locating and tracking poverty, appropriate programs can be mapped out and implemented to address the needs on empowerment, accessibility to quality social services, sources of livelihood, capacity building, micro credit, and market support. In this connection, direct anti-poverty programs will be implemented to ensure that interventions will reach poor people the soonest time possible. Moreover, effectiveness and monitoring of the 4Ps must be improved for instance by way of spot checking of the identified beneficiaries. Databanking of senior citizens for accurate information of the sector should also be pushed for.

### ***Continuous investment and protection on children***

The region has also pushed for the continuous protection of the children in line with a study released by UNICEF showing that "poverty and disparity reduction begins with children". The region is now in the process of crafting a Regional Plan of Action on Children (RPAC) to further enhance the protection and participation of children in Calabarzon. It has also a Calabarzon Child Labor Committee chaired by the DOLE with similar membership as the Regional Sub-Committee on the Welfare of Children (RSCWC).

Measures to prevent and eliminate the worst forms of child labor must be strengthened. In response to the prevalence of child-labor in the region, a Convergence Program Against Child



Labor 2013 to 2016 was launched to move out child laborers from hazardous work by using the HELP-ME strategy: Health, Education and Training, Livelihood Prevention, Protection and Prosecution and Monitoring and Evaluation.

## Housing

### Assessment and Challenges

As a result of the continued and robust growth of the housing and real estate sector in the region, new settlements such as residential subdivisions and master planned communities continue to emerge throughout the region. The private sector continues to take a dominant role in defining housing and real estate in Calabarzon, catering not only to middle and high-income homeowners but providing low-cost and socialized projects as well. The more affordable housing options are typically located in suburban areas while master planned communities tend to locate along major road networks. Moreover, the latter provide amenities that integrate residential, business, institutions, ecology and recreation in one setting.

With Calabarzon's proximity to the NCR, the region has become the choice for relocation of informal settlers. Most 'sending off' LGUs are not able to provide all the basic services, thus the destination municipality assume responsibility for migrants. Mechanisms to ensure social preparation of the destination areas as well as cooperation between "sending" and "receiving" LGUs and the appropriate national agencies need to be established so that the process of relocation and resettlement does not become burdensome to the recipient. In this regard, a review of relevant policies, such as RA 7279 or the Urban Development and Housing Act (UDHA), may also be necessary.

### Strategic Framework

#### *Strict implementation of housing related laws and ordinances*

In October 2012, the HLURB approved Board Resolution 890 or the "Implementing Rules and Regulations to Govern Section 18 of Republic Act No. 7279," otherwise known as the Urban Development and Housing Act of 1992. The Resolution defines manners of compliance with Section 18 or balanced housing development and requires developers to develop an area for socialized housing on their proposed residential subdivision projects. The housing sector in the region shall also push for balanced housing development, slum upgrading, joint venture with local government units, participation in the Community Mortgage Program and development of new settlements guide by effective land use planning. For 2013 to 2016, the HLURB will continue to extend technical assistance to 652 LGUs composed of 101 cities and 551 municipalities in their CLUP updates. Full implementation of RA 9994 especially on the establishments of housing units to the elderly is also called for.

Moreover, the availability of non-flood prone land for socialized housing has to be recognized to enable the formulation of new policies that will remove bottlenecks in land acquisition and development. Development interventions must also be targeted for non-formal workers (drivers, vendors, *kasambahays*), minimum wage earners, uniformed personnel, informal settler families (ISFs), IPs, and formal sector (members of PAGIBIG, SSS and GSIS). For in-city relocation of ISFs to be vigorously pursued, adequate land must be made available to accommodate mass density housing solutions.



# Asset Reform

## Assessment and Challenges

With regards to the implementation of the Comprehensive Agrarian Reform Program, the region showed an increasing trend in terms of hectares of land distributed under CARP from 2011 to 2012. From 5,027 hectares distributed in 2011, it significantly increased to 6,412 in 2012 where Quezon province had the highest land distributed of 5,101 hectares, followed by Batangas (372 ha), Laguna (362 ha), Cavite (299 ha) and Rizal (278 ha).

Based on the balance on Land Acquisition and Distribution (LAD) of Batangas, Cavite, Laguna, and Rizal, these provinces have limited areas to be covered by CARP. From the LAD scope of 214,662 hectares, DAR accomplished 175,096.8309 hectares as of August 2013 with a LAD Balance of 29,479.3832 benefitting 114,284 farmer-beneficiaries. In support of Agrarian Reform Communities (ARCs), DAR has a total of 118 ARCs launched as of 2012 which covered 76 municipalities, 388 barangays in five provinces (Batangas, Cavite, Laguna, Quezon 1 and 2 and Rizal), and 217 Agrarian Reform Beneficiaries Organizations (ARBOs) assisted.

Among the hindrances that were encountered during the implementation of patent processing and issuance were low awareness of the public on Residential Free Patent Act or the Republic Act No. 10023 entitled "An Act Authorizing the Issuance of Free Patents to Residential Lands," difficulty in securing Requisite Certification from the Municipal Planning and Development Council and Assessor's Office, "high cost" and tedious process in acquisition of titles at the Register of Deeds, and difficulty in securing certification from the Land Registration Authority. There were also reports of landowners' protest/filed application for exemption and conversion and there were several court cases filed by landowner to delay the CARP implementation

## Strategic Framework

A number of strategies were employed to accomplish the target under Land Disposition Program, which include: conduct of Barangay Carpet-approach; funding support and trainings provided by the central and regional offices; intensify management monitoring and supervision through the conduct of Quarterly Regional Management Conferences, Executive Committee Meetings, and field validation; and strict compliance and implementation of the DAO 2011-06 (Prescribing the Guidelines for the Implementation of Public Land Titling in Partnership with Local Government Units), wherein the DENR IV-A has been collaborating with the Foundation for Economic Freedom. Region-wide orientation on agrarian reform among municipal/city mayors, local planners, and assessors must also be intensified. These strategies alongside with the foregoing programs and activities will be pursued by DAR upon the end of their mandate. Furthermore, DAR's inclusion in the DA mandates it to:

- Create task force to focus on Problematic Landholdings Land Acquisition and Distribution
- Issue notice of coverage
- Resolve landowner's protest/filed applications for exemption and conversion
- Regularly conduct dialogue/follow-up with Landbank of the Philippines, DENR-Land Management Services
- Fast-track registration of CLOAs/ EPs by the Philippine Land Registration Authority Information System (PhiLARIS)
- Implement and intensify capability building development on entrepreneurship



**Table 8.10 MDG Targets, Calabarzon 2015 and 2016**

Indicators	Current 2012	MDG Target 2015	End of Plan Target 2016
Subsistence incidence	3.7	3.3	2.6
Poverty incidence	13.9	12.4	10.5
Proportion of HH with per capita intake below the 100 percent	60.8 (2009)	33.9	33.2
Proportion of underweight children under 5 years old	8.2	4.5	3.19
Net enrolment or participation rate in elementary education	89.1	100.0	100.0
Elementary cohort survival rate	88.2	84.7	86.7
Elementary completion rate	85.4	81.0	82.0
Gender parity in elementary net enrolment rate	1.02	1.00	1.00
Gender parity in secondary net enrolment rate	1.11	1.00	1.00
Gender parity in tertiary enrolment	1.25 (2009)	1.00	1.00
Gender parity in tertiary graduates	1.46 (2009)	1.00	1.00
Under-five mortality rate	7.9	1.3	1.2
Infant mortality rate	7.5	3.1	3.0
Percent fully immunized children	64.5	100.0	100.0
Maternal mortality rate	39.1	9.7	9.0
Contraceptive prevalence rate	54.1	80.0	81.0
TB case detection rate	65.0	0.0	0.0
Percentage of HH with safe drinking sources	92.5 (2009)	86.5	88.5
Percentage of HH with sanitary toilet facilities	96.0 (2008)	83.8	85.8
Proportion of HHs with secured housing units	66.8 (2009)	80.0	82.0
Percentage forest cover ( <i>Chapter 10 National Greening Program</i> )	35.2 (2005)	50.0	52.0



## **IX: Peace and Security**

The peace and security situation in the region is an important element in providing a stable regional security environment conducive to achieving its development goal of rapid, sustained and inclusive growth. Moreover, the long-term vision of having a liveable and globally competitive industrial region must be complemented by a favorable peace and security environment. Thus, to realize this outcome by 2016, the region must: 1) permanently and peacefully close all armed conflicts in the region, and 2) spur and sustain a safer and more secured environment that will enable regional development.

The first sub-sector outcome will be addressed by completely negotiating all armed conflicts and effectively dealing with the root causes and other issues that affect the peace process in the region. Meanwhile, the latter sub-sector outcome can be accomplished by: a) promoting and sustaining internal stability; b) addressing preparedness to natural calamities and disasters with the highest standard of capability; and c) reforming and modernizing the regional security sector.

### **Assessment and Challenges**

#### **Political Settlement of Armed Conflicts**

Armed groups no longer pose threats to the internal security of the region. The level of armed hostilities and other forms of violence arising from insurgencies had been significantly reduced. The strength of the Southern Tagalog Regional Party Committee in the Calabarzon area both from the Communist Party of the Philippines (CPP) and the New People's Army (NPA) had also decreased considerably.

There are still barangays that are considered affected by threat groups and classified as threatened. These barangays faced challenges in accessing basic services driving most of them to poverty. This situation necessitates concerted and targeted government efforts to deliver the basic needs of the affected areas and keep government structures working up to the grassroots level. In the course of settling the armed conflict, the Internal Peace and Security Plan (IPSP) of the Armed Forces of the Philippines (AFP) must be reassessed to be more sensitive to human rights.

#### **Internal Stability**

For the past years, the peace and security situation in the region remained favorable to socio-economic activities and development. There has been a general decline in crime incidents, nevertheless politically motivated, cyber-related and index crimes such as property theft, riding-in-tandem cases and drug trade and use were the most common. Of the different areas in the region, major cities and urban centers were the most crime prone areas. With the emergence of cyber-related crimes in various sectors of the society, RA 10175 also known as the Cybercrime Prevention Act was enacted in 2012 to penalize and enforce mechanisms against cyber offenses, both computer- and content-related, such as cybersex, child pornography, spamming, fraud and system interference, among others.

With the implementation of the Philippine National Police (PNP) Integrated Transformation Program (ITP), reforms were introduced to modernize the security sector across the nation and make the PNP more effective, capable and credible in serving as the nation's police organization.



However, it was observed that implementation of the ITP Performance Governance System has been slow during the past years due to budgetary constraints. Enhancement of administrative and operational capabilities of the regional PNP was also needed.

Calabarzon was reported to be the region with the second highest number of drug-afflicted barangays. A barangay is considered drug-afflicted whenever drug user or pusher, manufacturer, marijuana cultivator or other drug personality is present regardless of number in the area (PDEA). The strategic position of the region, linking Metro Manila to different provinces in the south via the provinces of Cavite, Batangas and Rizal, is a factor that caused high reported illegal drugs operations in the region. Moreover, transnational drugs were reported to be transported through the eastern and western seaboards. To curb illegal drugs, the Philippine Drug Enforcement Agency (PDEA) had conducted anti-drug and surveillance operations, information campaign, filed cases against arrested personalities and maintained 24-hour telephone, e-message and website hotlines, among others. Despite these initiatives, the incidence of barangay drugs affliction continued to increase.

To effectively respond to peace and order concerns, there is a need for really tight coordination and mutual reinforcement among the five pillars of justice (community, law enforcement, prosecution service, court and correctional/rehabilitation system) and localize anti-criminality action plans for intensified anti-criminality campaigns. Moreover, strengthening the Local Peace and Order Councils (LPOCs) is essential from the provincial to barangay levels. Specialized trainings on investigative and intelligence skills also need to be enhanced to cope with various modes of crime operations in the region. Campaigns and advocacy initiatives are also called for to educate the public and intensify anti-criminality activities.

## External Security

The external security challenges in the Calabarzon region include cases of human trafficking and smuggling. Kidney vending is one of the most prevalent cases of human trafficking in the region especially in deprived communities. Data and documentation of such cases seemed insufficient in the region to proactively respond to them. Few cases on illegal recruitment and forced labor were also reported. Various efforts to intensify campaign against human trafficking were conducted such as livelihood trainings, information dissemination and medical assistance.

The enactment of RA 10364 (Expanded Anti-Trafficking in Persons Act of 2012) extended the provisions of RA 9268 to strongly implement anti-human trafficking measures. Among the provisions included in the new law covered attempted trafficking cases, providing free legal assistance to overseas Filipino workers and underpinning human smuggling syndicates, accomplices and accessories. With RA 10364, cases of human trafficking are expected to be addressed and anti-human trafficking efforts will be intensified and sustained in the region.

## Non-traditional Security

Non-traditional challenges that affect regional security include emergency situations resulting from natural disasters. The implementation of RA 10121 or the Philippine Disaster Risk Reduction and Management Act of 2010 focused in strengthening prevention and mitigation, preparedness and response, rehabilitation and recovery capacities up to the local level.

One of the objectives of the DRRM Act is to enhance and intensify disaster preparedness and response capacity at all levels through local Disaster Risk Reduction and Management Council (DRRMCs). In 2013, the Regional DRRM Plan was crafted which spelled out disaster



preparedness strategies, among others. The disaster preparedness plan aimed to ensure that concerted efforts from the government, private sector, and the community are directed to establish and strengthen capacities of communities to anticipate, cope and recover from the negative impacts of emergency occurrence and disasters.

One of the initiatives in the region was the implementation of Project Hazard Notification, Dissemination and Awareness (HaNDA), developed by DOST IV-A in 2011. It is a system that disseminates and feeds back disaster-related announcements to the region. Functional DRRMCs, contingency plans and operation centers also strengthened preparedness of LGUs against disasters. The Regional DRRMC reported that 98.0 percent of the local government units in the region have functional DRRM Councils, 60 out of the 146 LGUs had local contingency plans and 571 operation centers were functioning in the region. To effectively respond to the needs of evacuees at the onset of disasters, more than 4,300 evacuation centers were identified. These include barangay halls, school and day-care centers, multipurpose halls, churches, gymnasiums, and covered courts.

Risks brought about by disasters increased during the past years as aggravated by climate change. Among the disaster preparedness challenges are: 1) inadequate communication means, especially in rural and far-flung areas, to convey advisories and weather information; and 2) securing and preparing the most vulnerable sectors when threats of disasters strike. Further, capabilities of LGUs on disaster management and emergency response must be strengthened. It was observed as well that infrastructures are not structurally sound nor disaster resilient making them more prone to damages.

## Strategic Framework

The regional strategy on promoting and sustaining peace and security in the region is anchored on the vision of creating liveable and vibrant communities in the region which protect specially the poor and vulnerable population.

Permanent and peaceful closure of all armed conflicts will be ensured by sustaining conducive peace and order condition in the region and implementing reforms in the security sector. In this regard, efforts will be done to:

- Ensure that letter of intents, implementing plans and joint letter of directives of AFP, PNP, and LGUs in response to rebel/armed groups are implemented;
- Finally dispose arms of armed groups and mainstream former rebels into society;
- Support and advocate human-rights responsive IPSP; and
- Effectively deliver basic services of the government in poverty and disaster-stricken areas.

Reforms in the security sector will be in the form of support through the issuance of an Executive Order that will create an Inter-Agency Commission to assess causal factors of insurgency. It will also be empowered to formulate and recommend measures thereon.

Safer and more secured environment conducive to regional development will also be sustained through internal stability mechanisms, modernizing the security sector and addressing external and non-traditional security threats.

Internal stability will be maintained through the following measures:

- Intensify police and law enforcement operations of concerned agencies;
- Improve crime investigation, prosecution and resolution;



- Strengthen the coordination mechanism between and among the five pillars of justice; and
- Intensify barangay based institutions such as Barangay Development Councils, Peace and Order Councils, and DRRMCs.

Participation of communities and LGUs in maintaining peace and order must be intensified through advocacy initiatives and campaigns to educate communities. Support mechanisms will also be pushed that will promote modernization of security sector and enhance capabilities such as the ITP Performance Governance system and PATROL PLAN 2030 – CODE P.

Human trafficking cases in the region will be addressed by promoting the establishment of database on human trafficking and smuggling and intensifying campaigns and efforts on anti-human trafficking among various sectors of the society per RA 10364.

To address non-traditional security challenges, the following approaches will be done:

- Transform communities to become resilient against disasters and risks by strengthening LGU capabilities on disaster management and emergency response;
- Strengthen the functionality and coordination among local DRRMs;
- Beef up the role of security sector in emergency relief and rescue operations; and
- Support efforts to secure and protect critical infrastructures and vital installations.

Among the legislative agenda for sustaining peace and security that the region will support in the next three years and beyond are:

- Rights protection of internally displaced persons;
- Protection of women, children, and persons with disability in situations of armed conflict;
- Amendments and bills on new criminal code, criminal investigation law, and cybercrime law; and
- PNP Reorganization Plan



# X: Conservation, Protection and Rehabilitation of the Environment and Natural Resources

This chapter provides the strategy to attain the vision of creating an environment that is healthy, ecological balanced, sustainably productive, climate resilient and one that will provide for the present and future generations of Calabarzon through improved conservation, protection and rehabilitation of natural resources.

## Assessment

From 2010 to 2012, Calabarzon contributed about 10.0 percent of the national gross value added share in agriculture, hunting, forestry and fishery (AHFF). This placed the region second to Central Luzon in terms of national GVA share in AHFF. However, the regional AHFF contribution to the national gross domestic product is very little at 0.1 and 0.2 percent from 2010 to 2011 and 2011 to 2012, respectively, compared to the services and industry sectors. The traditional economic valuation system has not captured other costs (e.g., air and water pollution, non-renewable resources depletion, damages due to disasters and climate change) and benefits (e.g., aesthetic values of parks, gardens, protected areas, forests, coastal and marine resources, biodiversity) from the environment. Thus, there is a need to accelerate institutionalization of environment and natural resources valuation and accounting system to measure if natural resources are sustainably managed.

Various initiatives in the region to provide job opportunities to over 21,000 fisherfolks and beneficiaries from reforestation and clean-up drives were implemented through the Bureau of Fisheries and Aquatic Resources (BFAR) mangrove rehabilitation programs, National Greening Program (NGP) of the Department of Environment and Natural Resources (DENR), and Cash and Food for Work programs of DSWD (Table 10.1). The cash and food for work programs employed beneficiaries by engaging them in community clean up drives, dredging and declogging of canals/drainages and rivers, and clearing shorelines and dams.

**Table 10.1 Job Opportunities from Activities Promoting Sustainable Use of Natural Resources, Calabarzon, 2010 to 2012**

Program/ Implementing Agency	Number of Beneficiaries	Accomplishment
Mangrove Reforestation BFAR	880 fisherfolks	105.2 hectares 1.05 million mangrove propagules
National Greening Program DENR	6,959 individuals	1,200.0 percent increase in number of individuals benefitted from NGP
Cash and Food for Work DSWD	13,930 beneficiaries	95.0 percent of the beneficiaries mobilized

Source: BFAR, DENR, DSWD



## Proportion of land area covered by forest increased

The proportion of land area covered by forest exceeded its target from 2010 to 2012. The target of about 755 hectares of reforested area in 2010 increased to over 16,000 hectares and this was made possible by the implementation of the NGP<sup>1</sup> as higher target areas and fund allocations were adopted. One of the features of the program is the effort to harmonize greening initiatives among LGUs, government agencies, academe, NGOs, and private sectors. Through the program, a total of 6,319 hectares of forest land in 2011 and 16,883 hectares in 2012 were rehabilitated.

## Majority of fauna species in Calabarzon increased

The intensified biodiversity monitoring system reflected increase in the majority of fauna species among Calabarzon's protected areas. More diverse wildlife in Mt. Banahaw - San Cristobal Protected Landscape in Laguna was observed. There was also a significant rise in species in Quezon's protected landscape such as monitor lizards (*Varanus olivaceus*), yellow butterflies, serpent eagles, white breast wood swallow, and tree sparrows among others. However, some fauna species observed in 2011 were no longer observed in 2012 in Mt. Palay-palay and Mataas na Gulod National Park in Ternate, Cavite. There was also a decrease in the black-crowned night heron (*Nycticorax nycticorax*) and egret in Taal Volcano Protected Landscape.

## Coastal and marine resources management practices sustained

The Verde Island Passage (VIP) Marine Corridor in Batangas is considered as the heart of the world's richest marine biodiversity, serving as breeding ground of fish and home to diverse ecosystems. It was considered as one of the priority conservation corridors of the Sulu-Sulawesi Seascape. Primary stakeholders in protecting and managing this marine resource per Executive Order No. 533 (Establishing national policy on biological diversity) and RA No. 8550 (Fisheries Code) are the LGUs along with key government partners such as the Philippine Coast Guard, PNP-Maritime Group, BFAR, and DENR.

The major activities in the VIP corridor and its seashores are fishing, tourism and recreation, industrial use such as major oil and gas enterprises, shipping lines and navigation, and residential and agricultural activities. Unsustainable human activities and impact of climate change threaten VIP. According to the industrial assessment of the VIP provinces<sup>2</sup>, majority of the industries have very low score in terms of enacting positive environmental friendly actions in undertaking their business activities. However, there are various conservation partnerships implemented through corporate social responsibility projects among government and non-government players such as conservation management activities, integrated coastal management and environmental governance trainings.

Coastal and marine resources both in the western and eastern seaboard of the region conducted activities on Integrated Coastal Resources Management (ICRM) spearheaded by BFAR and DENR. Included in the ICRM are provision of assistance to local government units on the

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<sup>1</sup> The National Greening Program (NGP) is one of the government's banner programs that aims to "pursue sustainable development for poverty reduction, food security, biodiversity conservation, and climate change mitigation and adaptation" as per EO No. 26 signed on 24 February 2011. The NGP targeted to plant about 1.5 billion trees in 1.5 million hectares from 2011 to 2016.

<sup>2</sup> Conservation International Philippines [www.coraltriangleinitiative.org](http://www.coraltriangleinitiative.org)



preparation of municipal fisheries ordinance, conduct of rapid resource appraisal as basis for establishing fish sanctuaries, establishment of fish sanctuaries, monitoring and evaluation of established fish sanctuaries, and conduct of depuration of fish warden trainings.

## Land administration and sustainable land management implemented

From 2002 to 2013, the Department of Agrarian Reform (DAR) reported that about 70.0 percent of the 3,728 hectares of agricultural land in the region were converted for residential purposes especially in the provinces of Cavite and Rizal. Such conversions are worsened by the prevalence of illegal logging and kaingin as a practice in upland farming, and rampant settling of informal housing. About 40.0 percent of the region's land has a slope of more than 18.0 percent. These areas are prone to erosion and soil loss and therefore need appropriate sustainable land management (SLM) practices to restore soil fertility especially among degraded land areas. Among the SLM practices in the region were soil fertility management and erosion control, water resource management, and soil conservation technologies. Techno-demonstration farms that adopted soil conservation farm plans and multiple cropping systems are present in the region especially in Cavite and Rizal.

DAR also reported that from 2010 to 2012, over 15,200 hectares of land have been distributed in Calabarzon under the agrarian reform program. Quezon Province had recorded the largest distribution with about 71.2 percent of the total distributed land in the region, while Rizal Province had the least with only 4.0 percent (Table 10.2).

**Table 10.2 Land Distributed by Province, Calabarzon 2010 to 2012  
In Hectares**

Region/Province	2010	2011	2012
Calabarzon	5,049	5,027	5,211
Batangas	522	415	352
Cavite	452	419	290
Laguna	583	336	267
Quezon	3,319	3,648	4,039
Rizal	173	209	264

Source: Department of Agrarian Reform IV-A

The indigenous Dumagat and Remontado groups in Quezon and Rizal were issued certificates of ancestral land titles (CADTs) covering about 200,000 hectares. Assistancess were given to indigenous communities through the Ancestral Domain Sustainable Development and Protection Plan (ADSDPP).

## Equitable utilization of mineral resources

As a minor player in mining and quarrying, the region's contribution to GDP is only about 0.09 percent in 2010 to 2011 down to 0.05 percent in 2011 to 2012. Calabarzon's total volume of production of non-metallic minerals slightly declined from 2010 to 2011. In 2011, Rizal province recorded the highest volume with almost 7 million cubic meters amounting to PhP 1.0 billion, followed by Batangas province on a wide margin which posted 1.6 million cubic meters amounting to about PhP 79.0 million.

Construction aggregates (andesite/aggregates/basalt) are by far the largest mineral mined by



volume and value in the region totaling about 4.0 million cubic meters amounting to over PhP 721.2 million. Andesite/Aggregates/Basalts are primarily used as construction and road filling. Limestone follows with a total volume of more than 3.6 million cubic meters which amounts to about PhP 238.4 million.

## Quality of air and water bodies deteriorated

According to DENR-Environmental Management Bureau, the yearly total suspended particulate from re-suspended road dust motor vehicle use, open burning, and combustion of fossil fuels in Calabarzon in 2009 and 2010 stayed at 19 and 22 micrograms per normal cubic meter, respectively. The values stayed within the national standard for ambient air quality. However, air quality in urban areas in the region posed alarming threats and immediate health hazards to the population. The industrial nature of the region and increasing number of motor vehicles largely contribute to the air pollutants that can cause premature deaths and cases of chronic bronchitis.

Excessive groundwater extraction had been noted in the region especially among the urban areas of Cavite and Laguna. Moreover, over-extraction of groundwater along some coastal areas in the region have resulted to saltwater intrusion and compromised the quality of potable water available to the population in these areas. Pollution from domestic, agricultural, and industrial sources also lowered water quality in some parts of Calabarzon. Furthermore, flooding and stagnated water due to heavy rains, typhoons, poor drainage systems, and informal settlements along rivers and coastal areas, also posed threats such as increase in water-borne diseases.

The Laguna Lake Region is one of the most important and dynamic natural resources, which more or less correspond to the basin. It is among the fastest growing economic bases in the Philippines. Because of its unique features, multiplicity of uses and strategic location, economic activities, population increase, rapid industrialization, and urbanization have led to changes in the ecological milieu of the lake and its surrounding region over the past decades.

During the last 30 years, the Laguna Lake watershed has experienced land-use changes characterized by rapid deforestation and urbanization. Large areas of the watershed were converted to industrial, commercial, and residential uses as a result of peri-urban expansion of Manila. In rural areas, population pressure and lack of alternative livelihood opportunities led to the clearing and cultivation of uplands and over harvesting of forest products, causing denudation of the lake's micro watersheds. The need to reforest the denuded forest lands and the steeply sloping grasslands is urgent. There is also a need to maintain at least the remaining agricultural lands for food security and food-self-sufficiency considerations.

Increased sedimentation from denuded uplands, contaminants from agricultural activities, domestic wastes, industrial discharges, effluents from dumpsites, and intensification of fish production take their toll on the water quality of the lake. There are no treatment systems for domestic wastes and most industries and agricultural operations do not have adequate pollution abatement systems. Until recently, most of the solid wastes collected by LGUs end up in open dumpsites whose effluents flow into the lake. The observed levels of water quality parameters confirmed the present condition of the lake as a polluted and stressed aquatic ecosystem. This poor water quality has severely diminished Laguna Lake's potential for transport and recreational uses and as a source for domestic water. The lake water quality is currently classified as Class C or fit for fishing, but not for swimming and contact recreation. With appropriate technologies, the lake water may be treated for drinking.

Because of its location and ecological challenges, the Laguna Lake Region is most vulnerable to natural disasters in the country. There were historical records of flood disasters occurring in the



lake region for many years. The most recent and most damaging flood events were caused by typhoon Milenyo in 2006, and Typhoons Ondoy, Pepeng, and Santi in 2009.

Flooding in Metro Manila is caused by limited capacity of most upstream river channels draining into the Laguna Lake to confine floodwaters, the slow-flow capacity of the outlet channel from Laguna Lake and the declining capacity of the Laguna Lake itself to serve as a detention reservoir for floodwaters.

The water quality of Laguna de Bay, the country's largest fresh body of water, is threatened due to increasing demand of various economic uses and socio-economic pressures. Thus, monitoring and implementing sustainable programs to maintain the quality of the lake is imperative. The biochemical oxygen demand (BOD) level of the Bay from 2010 to 2012 was sustained within the standard BOD water criteria level of less than 7 mg/L. The value placed Laguna de Bay at Class C standard which is suitable for fisheries, recreation and industrial water supply. Moreover, all 34 Laguna de Bay stations passed the dissolved oxygen and total coliform (*T. Coli*) standards for Class C waters.

Areas within LLDA jurisdiction (under R.A. 9275), and Imus-Ylang-Ylang-Rio Grande River System (under DAO 2013-02) in Cavite were designated as water quality management areas (WQMA) under the Philippine Clean Water Act of 2004. The Imus-Ylang-ylang-Rio Grande River System is from the coastal cities and municipalities of Noveleta, Kawit, Bacoor City to Imus City, General Trias, Dasmariñas City, Amadeo, Silang, and Tagaytay City.

Adopt-an-Estero/Water Body program is a national campaign which started in 2010 that aimed to rehabilitate rivers, creeks and water bodies by involving the private sectors to take part in cleaning up creeks, rivers, and other water bodies for at least a year. A total of 36 water body systems in the region were already adopted by private sectors under the program of DENR-EMB. On top of this are river rehabilitation programs among river systems within the Laguna Lake Region.

## **Waste disposal system needs improvement**

Warning signs and symptoms of deteriorating urban areas are becoming evident in the region such as the increasing informal settlements, mounting uncollected garbage and improper disposal, inadequate infrastructure, and congested commercial business districts (CBDs).

An average Filipino generates about 35 to 70 grams of sewage and 640 to 1,600 grams of solid waste per day. Being the most populous region in the country, managing sewage and solid waste is a major challenge. Inadequate waste facilities to absorb the tons of wastes generated put pressure to idle private lands and bodies of waters. Moreover, inland waters suffer from the leachate (or garbage juice) due to dumping activities. In the provinces of Cavite, Laguna, and Rizal, centralized materials recovery facilities (MRFs) served 389 barangays or just 1.0 percent of the total barangays in the region.

About 14.0 percent of the cities and municipalities in the region had passed ordinances to regulate or ban use of plastic and styrofoams among others to reduce wastes generated in their localities. Moreover, these initiatives help mitigate disaster since plastic and non-biodegradable packaging materials often clog drainage systems during heavy rains and typhoon. The DOST recently developed and promoted biodegradable food packaging materials which is based on clay and starch using nanotechnology to address pollution problems posed by non-biodegradable plastics.



## Climate change projections in Calabarzon

According to the Climate Change Commission, seasonal temperature will increase by 0.9 to 1.2 degrees Celsius in the region by 2020, under medium-range emission scenario. Batangas and Cavite provinces will experience about 1.2 degrees Celsius hotter especially in the summer. By 2050, temperature is projected to rise from 1.8 to 2.2 degrees Celsius. All the provinces are projected to experience more than 2.0 degrees Celsius increase in seasonal temperature especially from March to May.

It is projected that most part of the Philippines will have reduced rainfall. This means that wet seasons will be wetter while dry seasons will be drier and this may lead to more flooding or drought. The decrease in seasonal rainfall will be more pronounced during summer months. Laguna and Rizal provinces are expected to have at least 30.0 percent reduction in rainfall in 2020. Meanwhile, it will be wetter during the months of June to August especially in Cavite and Rizal provinces. By 2050, all provinces will have at least 20.0 percent decrease in rainfall during summer months, with Rizal province having at least 39.8 percent lesser rainfall compared to the 1971-2000 baseline. Meanwhile, Cavite and Rizal are expected to have wetter season from June to August. Extreme events will be observed as manifested by more frequent high temperatures and heavy daily rainfall. The number of dry days will increase by 2020 and 2050.

The impact of climate change varies across the region in the different sectors of economy especially agriculture and forest-based activities, water and coastal resources, and health. The vulnerable sectors of society, children, elderly, PWDs, and the poor will be mostly affected.

Human activities, especially those dependent on non-renewable energy resources, are linked with the looming impact of climate change. Calabarzon, as the industrial powerhouse and one of the largest urban areas in the country, contributes largely to the consumption of fossil fuel-based energy source. Sixteen power plants in the Luzon Grid are hosted in the region with an aggregate dependable capacity of 6,016.69 megawatts wherein about 26.0 percent of the dependable capacity is coal-fired. Renewable energy sources such as geothermal and hydropower, likewise, contribute significantly to the mix. The region, yet to maximize potential in alternative fuel sources, has ensured that energy development policies are sustainable and efficient.

## CCA and DRRM mainstreaming in the region progressed

The implementation of the Philippine Disaster Risk Reduction and Management Act of 2010 (Republic Act 10121) was started during the past planning period. The Regional DRRM Plan was crafted in 2013 through collaboration of various regional agencies headed by the Office of the Civil Defense. The RDRRM Plan detailed the strategies in disaster response, preparedness, prevention and mitigation, and rehabilitation and recovery. Localization of Disaster Risk Reduction and Management and Climate Change Adaptation (DRRM/CCA) mainstreaming in the subnational/local development plans were initiated per Administrative Order (AO) No. 1 in 2010.

Provincial Development and Physical Framework Plans (PDPFPs) are also in the process of enhancement and updating to mainstream DRRM and CCA. In June 2013, Cavite province had approved DRRM/CCA-enhanced PDPFP. The DRRM and CCA component are included in the guidelines in the preparation of comprehensive development plan (CDP) and CLUP for municipalities and cities. Few municipalities and cities in the region had mainstreamed DRRM/CCA. Mainstreaming DRRM/CCA guidelines include hazard characterization and risk estimation and evaluation of various sectors such as population, economic activities, physical and environmental resources, social services, and physical infrastructures.



The RDRRMC reported that 120 out of 147 LGUs had local DRRM plans while 2,616 out of 4,011 barangays in the region had crafted their DRRM plans. The region also conducted DRRM and CCA Summit for the Local Chief Executives which provided technical guidance and information to local chief executives (LCEs) and local DRRM officers (LDRRMOs) and staff to have deeper appreciation of the local disaster and climate change situation in the region. Integrated resource base maps (1:50,000) and various IEC materials were likewise distributed.

Moreover, DENR implemented various programs and projects to strengthen DRRM/CCA practices in the region such as intensified implementation of vegetative and structural soil conservation and watershed management measures starting 2012. Other initiatives include: a) Construction of check dams and hedgerows/ planting of forest species in San Juan River in Batangas and Upper Marikina River Basin Protected Landscape in Rizal; and b) Coco matting and planting of vetiver grass/ kakawate; construction of silt ponds; small water impounding system; trash traps and bench terrace in Rizal; and stabilization of about 50 kilometers streambanks in various rivers in Laguna, Cavite, and Rizal.

## Challenges

Achieving the targets of the region in terms of conservation, protection, and rehabilitation of the environment and its natural resources are hampered by several factors including institutional gaps, operational concerns, and policy gaps.

Institutional gaps are challenges in the local leadership and capacities, strengthening and harmonizing mandates of various ENR agencies, and slow legislations of ENR laws.

- The change in local leadership and inadequate capacity of LGUs to implement devolved ENR/DRRM functions, as well as the need to further develop and continuously institutionalize systems and tools to mainstream CCA and DRR concerns in the local plans, policies, programs, and activities (e.g. vulnerability and risks assessment guidelines and monitoring and evaluation system) are deemed as challenges. Complementing the efforts of mainstreaming DRRM/CCA initiatives in the region necessitates improving capacities of LGUs in addressing ENR issues at the local level including project formulation and management to integrate and implement DRRM and CCA at the local level.
- Conflict and overlap in the mandates of government agencies on ENR management was an issue which has to be revisited. Inadequate mechanisms for coordination among ENR agencies (e.g., DENR, DAR, DA, CCC, NDRRMC, and LGUs) and stakeholders from resource-dependent industries and sectors also have to be improved.
- Legislation of the protected area policies, RA 9003 (e.g., formulation of SWM plan, establishment of SLF and MRF), RA 9274, RA 8749, and RA 6969 are needed to be fast-tracked.

Operational concerns include the need for environment and natural resources valuation and accounting system and improved technical capacities and sustained funding mechanisms.

- Valuation and contribution of the environment and natural resources was not reflected clearly in the national accounting system. Such system is necessary to measure real wealth derived from the environment and determine if natural resources are sustainably managed. Moreover, insufficiency in updated and integrated ENR and DRR-related data up to the local levels further pose issues on (1) discrepancies on reported DRR data among various agencies and (2) difficulty in monitoring and evaluating programs and



projects. For example, there is a need to improve motor vehicle and industrial estates inspection system and emission monitoring system to improve air quality in the region.

- The technical capacities of LGUs on map reading, appreciation, understanding, and interpretation are also limited. Aside from these, complementing resources such as financing, geologists and GIS experts, and IT personnel, vehicle and equipment are also insufficient to address the needs of the region. A common concern aired by the LGUs is inadequate funds to support DRRM positions/officers per RA 10121. Sustaining and managing ENR efforts in the region requires adequate and continuous financing of the sector. One example is the non-implementation of some SLFs and MRFs due to lack of funds and/or lack of political will of LCEs. Upgrading of weather forecasting facilities and implementing early warning systems, prevention and mitigation strategies also need funding requirements to be implemented and maintained.
- The presence of informal settlers in production, protection, and coastal areas/lakeshore and the inadequate measures to relocate them hamper the implementation of various ENR programs such as the NGP and protected area management/wildlife resources management. This is also a matter of poor implementation of zoning ordinances or of laws governing protected areas.

To set the direction of the regional ENR/DRRM/CCA strategies, gaps in policies have to be addressed such as having a governing policy that will provide implementing mechanisms to utilize, manage, and sustainably develop land resources; harmonize various agencies' programs and initiatives in coastal and marine management and water quality monitoring system; and localize People's Survival Fund (RA 10174) and Climate Change Act (RA 9729).

## Strategic Framework

All development interventions in the region should be harmonized with environmental protection and preservation as overarching considerations. For example, agricultural lands and forests should be maintained and conserved in a state of continuous production. Potentials of these lands for environment-friendly recreation and tourism development must also be vigorously pursued.

Efficiency in the use of non-agricultural land for residential, institutional, and commercial uses should be promoted in strict compliance with environmental regulations and standards to meet the need of the growing urban portions of Calabarzon. Both urban and rural areas should play as active contributors to the regional economy in tune with effective management and protection of physical resources guided by the LGUs land use plans and sustainable development frameworks.

## Cross-cutting Strategic Framework

Accelerate institutionalization of ENR valuation and accounting system to measure if forest and other resources are sustainably managed. The ecosystem accounting for Laguna Lake basin through the Wealth Accounting and Valuation of Ecosystem Services in the Philippines (Phil-WAVES), a World Bank-funded project must be supported as it will help provide policy and planning directions and determine the natural wealth of the Lake. Periodic update of ENR database to produce timely, accurate, and updated science-based information will be an important component of the ENR's valuation system.



Improve ENR research and development and knowledge management system to include DRRM/CCA concerns on technology development and transfer. Such system should also provide for standardized and harmonized indicators and data reporting formats across different levels and sectors. Moreover, documentation, sharing, and advocacy of LGUs' good ENR practices will help strengthen capability of local authorities in environmental management. Multi-stakeholder participation and partnership in ENR management and governance will also be reinforced.

To address the needs on unsustainable financing of ENR efforts, innovative financing mechanisms/options (e.g. institutionalization of Payment for Ecosystem Services) must be designed.

## Natural resources conserved, protected and rehabilitated

Strengthen implementation of sustainable integrated natural resources management through ecosystem-based/ridge-to-reef development planning and management. This will include programs that will:

- achieve the regional target of 102,560 hectares reforested through NGP and various forest and mangrove management programs (Table 10.3). The NGP efforts will help in the achievement of MDG 7 on increasing proportion of forest cover in the region
- manage foreshore land, patrimonial properties, and other public lands
- designate 50/30/10-meter setbacks and issue of certification of non-compliances to establishments that do not comply with setbacks in marsh lands, coastal areas, rivers, and lakes. Continuous and complete clearing of structures in the coastal/lake areas issued with certificates of non-compliances

For communities that have ecotourism opportunities, promotion of such resources and livelihood opportunities must be aligned on a sustainable and inclusive growth objective.

**Table 10.3 NGP Targets, Calabarzon 2013 to 2016  
In Hectares**

Region	Various Tree Species	Indigenous Species	Mangrove	Total
Calabarzon	75,000	23,794	3,766	102,560

Source: DENR-National Greening Program

Convergence among various agency programs for similar ENR initiatives such as mangrove rehabilitation programs and integrated coastal management programs must be strengthened. To address issues on enforcing and fast-tracking laws, multi-sectoral law enforcement teams must be created (DENR, LGU, PNP, AFP, NGOs) to push for the strict enforcement of existing ENR policies (management, implementation, regulation, litigation, and prosecution). Existing policies on the issuance of tenure and provision of resettlement areas for informal settlers must be reviewed in close coordination with concerned LGUs.

## Environmental quality and healthier environment improved

To equitably manage mineral resources, the following are the strategic actions: review and inspect mining operations in conformance with Environmental Compliance Certificates (ECC); promote responsible mining and development of downstream industries; and strengthen monitoring of mineral resources from the regional to local level.



To maintain the standard of air quality especially among urban areas in the region, monitoring of major industries and stationary sources of pollution and anti-smoke belching (ASB) campaign must be intensified. Promotion of policies on higher emission standards for vehicle must also be sought. The promotion of climate-smart/clean technologies for industries, eco-friendly products and services and environmentally sustainable infrastructure and transport facilities will also contribute towards meeting the reduction of carbon dioxide and greenhouse gas emission goals of the region.

To ensure quality water in the region, the following strategies are to be pursued: rehabilitate polluted water bodies; monitor water quality especially among special bodies of water (such as under WQMA) to be harmonized; monitor and assess existing environmental conditions of bay, lakes, tributary rivers, and sediment quality particularly of Laguna de Bay and Taal Lake; support policies on requiring commercial establishments to have water cisterns to promote water recycling in the province and in the whole region. For the Laguna de Bay area, implementation of on-going and proposed PAPs include:

- Laguna de Bay Institutional Strengthening and Community Participation (LISCOP) project which covers various environmental initiatives to improve water quality of the lake and tributary rivers
- Demolition of illegal aquastructures in Laguna de Bay and improve the water quality of the lake and its tributary rivers
- Water quality monitoring that will sustainably manage and periodically monitor the lake as a class “C” freshwater resource and cope with the allowable levels of BOD, COD, DO, heavy metals, and nitrate
- Construction of model sewerage treatment plants in two sub-watersheds
- Development of natural wastewater treatment systems around Laguna lake and construction of water processing and treatment plant

Moreover, CLUPs and development plans must integrate land use, coastal and marine zoning as well as CUs/water use strategies.

For efficient waste disposal system, LGUs’ implementation of the solid waste management plan must be monitored; SLFs, MRFs, and sustainable markets for recyclables and recycled products will be continued and/or established; organic polymers utilization as base in making plastics should be promoted; and mechanisms for recovery of electronic wastes should be developed. To complement these subsectors strategies, environmental quality standards must be updated and enforced.

Calabarzon’s overall strategy for reducing global carbon dioxide emissions within the energy sector is through the promotion of green growth in the region. Green growth is defined as economic progress that fosters environmentally sustainable, low-carbon, and socially inclusive development. It improves economic performance while addressing major environmental problems, supports efficiency and productivity, and stimulates innovation. Some specific strategies for the region are the following:

- Use or develop energy-efficient appliances, tools and equipment
- Adopt green building principles and energy control systems
- Provide incentives for renewable energy research and development and green technology innovations
- Implement energy labeling of electrical appliances, tool and equipment
- Encourage energy audit and hiring of energy managers in business and government establishments
- Promote development and utilization of biofuels



## **Resilience of natural systems enhanced with improved adaptive capacities of the communities**

Development and strengthening of early warning system for all hazard types must be done alongside with updating and conducting of GIS mapping and vulnerability assessment and mapping of areas for protection and production and those susceptible to natural hazards such as earthquakes, tsunamis, typhoons, floods, and others. Moreover, the review and updating of DRRM/CCA-sensitive engineering standards and building codes to ensure hazard/climate resilient infrastructure facilities must be pushed.

Continuous IEC campaigns on RA 10121 or the Disaster Risk Reduction and Management Act of 2010 and RA 9729 Climate Change Act of 2009 must be undertaken. On the local level, full implementation of DRRM/CCA mainstreaming in subnational development plans must be prioritized. Another aspect is the inclusion of strategic GAD-sensitive parameters in the DRRM/CCA mainstreaming.

In a region where large business enterprises and industrial parks abound, an Area Business Continuity Plan (BCP) must also be formulated. The Area BCP can maintain or urgently recover business and industrial functions in the region even under emergency conditions such as natural disasters. Area BCP involves business enterprise, industrial parks, infrastructure operators, and local governments, among others.

Among the DRRM programs identified were: crafting of the flood control master plan; designing and constructing flood-proof structures and infrastructures and creating additional flood control facilities. Green communities must be promoted parallel to the 8 Gs of development (green architecture, green urbanism, green technology, green energy, green infrastructure, green furniture, green interior design, and green sustainable development).



ANNEX: MILLENNIUM DEVELOPMENT GOALS SCORECARD, CALABARZON

Target/Indicator	Baseline Data (2000)	Latest Data (2012)	2015 Target	Probability of Achievement
<b>Halve, between 1990s and 2015, the proportion of people whose income is less than one dollar a day</b>				
<b>Proportion of population below national poverty threshold</b>				
Calabarzon	19.1	14.3	9.6	Medium
Batangas	25.8	23.9	12.9	Low
Cavite	13.0	5.5	6.5	High
Laguna	10.8	8.5	5.4	Medium
Quezon	39.3	29.2	19.7	Medium
Rizal	8.1	9.4	4.1	Low
<b>Proportion of population below subsistence [food] threshold</b>				
Calabarzon	6.5	5.4	3.3	Low
Batangas	6.5	11.4	3.3	Low
Cavite	1.9	1.0	1.0	High
Laguna	1.8	3.7	0.9	Low
Quezon	21.8	9.7	10.9	High
Rizal	1.8	3.0	0.9	Low
<b>Halve, between 1990 and 2015, the proportion of people who suffer from hunger</b>				
<b>Prevalence of underweight children under 5 years of age</b>				
Calabarzon	9.0	8.2	4.5	Low
Batangas	12.2	15.1**	6.1	Low
Cavite	12.7	13.4**	6.4	Low
Laguna	11.7	14.6**	5.9	Low
Quezon	10.7	18.6**	5.4	Low
Rizal	6.0	13.5**	3.0	Low
<b>Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling</b>				
<b>Net enrolment ratio in elementary education 2003</b>				
Calabarzon	83.7	89.1	100.0	Low
Batangas	82.8	88.3	100.0	Low
Batangas City	80.9	93.9	100.0	High
Lipa City	77.4	104.6	100.0	High
Tanauan City	75.7	105.3	100.0	High
Cavite	83.3	89.9	100.0	Medium
Cavite City	78.9	92.1	100.0	Medium
Laguna	82.8	92.6	100.0	Medium
Calamba City	87.1	98.2	100.0	High
San Pablo City	85.4	95.4	100.0	High
Sta. Rosa City	75.2	90.0	100.0	Medium
Quezon	84.2	87.7	100.0	Low
Lucena City	85.9	93.5	100.0	Medium
Rizal	85.9	84.6	100.0	Low
Antipolo City	85.9	84.2	100.0	Low
<b>Proportion of pupils starting grade 1 who reach Grade 6 2003</b>				
Calabarzon	95.8	88.2	84.7	High
Batangas	75.1	82.9	84.7	High



Target/Indicator	Baseline Data (2000)	Latest Data (2012)	2015 Target	Probability of Achievement
Batangas City	80.0	83.0	84.7	Medium
Lipa City	77.7	83.0	84.7	High
Tanauan City	64.5	83.8	84.7	High
<b>Cavite</b>	82.5	90.8	84.7	High
Cavite City	88.8	79.2	84.7	High
<b>Laguna</b>	66.0	87.4	84.7	High
Calamba City	65.0	81.7	84.7	High
San Pablo City	83.5	83.3	84.7	Low
Sta. Rosa City	64.8	88.8	84.7	High
<b>Quezon</b>	74.4	78.1	84.7	Low
Lucena City	88.4	88.2	84.7	Low
<b>Rizal</b>	78.0	88.9	84.7	High
Antipolo City	64.3	87.8	84.7	High
<b>Completion rate in elementary education 2003</b>				
<b>Calabarzon</b>	73.3	85.4	81.0	High
<b>Batangas</b>	76.2	79.0	81.0	Medium
Batangas City	88.0	81.7	81.0	High
Lipa City	87.9	82.0	81.0	High
Tanauan City	95.8	81.6	81.0	High
<b>Cavite</b>	65.7	88.2	81.0	High
Cavite City	75.4	71.6	81.0	Low
<b>Laguna</b>	73.2	84.7	81.0	High
Calamba City	53.8	77.6	81.0	High
San Pablo City	63.8	80.9	81.0	High
Sta. Rosa City	65.3	90.9	81.0	High
<b>Quezon</b>	76.7	79.7	81.0	High
Lucena City	82.0	80.7	81.0	High
<b>Rizal</b>	79.8	85.8	81.0	High
Antipolo City	64.6	88.1	81.0	High
<b>Eliminate gender disparity in primary and secondary education preferably by 2005 and to all levels of education no later than 2015</b>				
<b>Gender parity index in elementary education 2003</b>				
<b>Calabarzon</b>	1.01	1.02	1.0	Low
<b>Batangas</b>	1.01	1.01	1.0	Low
Batangas City	0.99	0.98	1.0	Low
Lipa City	0.99	0.99	1.0	Low
Tanauan City	0.98	1.05	1.0	Low
<b>Cavite</b>	1.02	1.01	1.0	Low
Cavite City	1.07	0.99	1.0	Low
<b>Laguna</b>	1.01	1.02	1.0	Low
Calamba City	0.98	1.02	1.0	Low
San Pablo City	1.02	1.00	1.0	Low
Sta. Rosa City	0.99	1.02	1.0	Low
<b>Quezon</b>	1.02	1.01	1.0	Low
Lucena City	0.97	1.06	1.0	Low
<b>Rizal</b>	1.00	1.02	1.0	Low
Antipolo City	1.02	1.04	1.0	Low



Target/Indicator	Baseline Data (2000)	Latest Data (2012)	2015 Target	Probability of Achievement
<b>Gender parity index in secondary education</b>				
<b>2003</b>				
Calabarzon	1.10	1.11	1.0	Low
Batangas	1.15	1.11	1.0	Low
Batangas City	1.13	1.14	1.0	Low
Lipa City	1.15	1.13	1.0	Low
Tanauan City	1.10	1.11	1.0	Low
Cavite	1.10	1.12	1.0	Low
Cavite City	1.07	1.12	1.0	Low
Laguna	1.13	1.10	1.0	Low
Calamba City	1.04	1.03	1.0	Low
San Pablo City	1.17	1.11	1.0	Low
Sta. Rosa City	1.16	1.05	1.0	Low
Quezon	1.21	1.19	1.0	Low
Lucena City	1.14	1.12	1.0	Low
Rizal	1.10	1.07	1.0	Low
Antipolo City	1.13	1.11	1.0	Low
<b>Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate</b>				
<b>Under-five mortality rate</b>				
<b>2003</b>				
Calabarzon	3.8	7.9	1.3	Low
Batangas	2.2	1.2**	0.7	High
Cavite	3.2	5.2**	1.1	Low
Laguna	5.1	8.6**	1.7	Low
Quezon	6.3	9.3**	2.1	Low
Rizal	6.2	3.1**	2.1	High
<b>Infant mortality rate</b>				
<b>2003</b>				
Calabarzon	9.2	7.5	3.1	Low
Batangas	8.0	3.3**	2.7	High
Cavite	6.6	5.0**	2.2	Medium
Laguna	9.3	6.7**	3.1	Medium
Quezon	14.6	7.7**	4.9	High
Rizal	10.6	4.7**	3.5	High
<b>Proportion of fully immunized children</b>				
Calabarzon	93.0*	64.5***	100.0	Low
Batangas	99.5*	77.5***	100.0	Low
Cavite	101.8*	79.1***	100.0	Low
Laguna	92.4*	59.3***	100.0	Low
Quezon	76.5*	51.1***	100.0	Low
Rizal	95.8*	80.7***	100.0	Low
<b>Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio</b>				
<b>Maternal mortality ratio</b>				
Calabarzon	38.9*	39.1	9.7	Low
Batangas	24.2*	2.97**	6.1	High
Cavite	25.9*	22.73**	6.5	Low
Laguna	34.9*	25.5**	8.7	Medium
Quezon	108.6*	37.9**	27.1	High
Rizal	50.6*	31.9**	12.6	Medium



Target/Indicator	Baseline Data (2000)	Latest Data (2012)	2015 Target	Probability of Achievement
<b>Have halted by 2015 and begun to reverse the spread of HIV/AIDS</b>				
<b>Contraceptive prevalence rate</b>				
Calabarzon	47.9*	54.1	80.0	Low
Batangas	31.8*	51.1**	80.0	Medium
Cavite	46.5*	57.5**	80.0	Medium
Laguna	36.1*	55.7**	80.0	Medium
Quezon	121.1*	46.1**	80.0	High
Rizal	32.9*	57.0**	80.0	Medium
<b>Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases</b>				
<b>Tuberculosis detection rate</b>				
Calabarzon	58.1*	65.0	0.0	Low
<b>Tuberculosis cure rate</b>				
Calabarzon	55.1**	79.0	85.0	Medium
<b>Tuberculosis mortality rate</b>				
Calabarzon	8.1 (1999)	6.2	0.0	Low
<b>Halve, by 2015, the proportion of people without sustainable access to safe drinking water &amp; improved sanitation</b>				
<b>Proportion of households with access to safe water supply</b>				
Calabarzon	82.2*	95.0**	86.5	High
Batangas	76.9*	99.0**	86.5	High
Cavite	89.5*	98.4**	86.5	High
Laguna	92.9*	91.0**	86.5	High
Quezon	75.5*	87.1**	86.5	High
Rizal	60.9*	91.3**	86.5	High
<b>Proportion of households with sanitary toilet facility</b>				
Calabarzon	84.2*	96.0**	83.8	High
Batangas	87.7*	91.2**	83.8	High
Cavite	87.7*	91.2**	83.8	High
Laguna	20.4*	89.1**	83.8	High
Quezon	64.7*	108.2**	83.8	High
Rizal	29.8*	63.7**	83.8	High

Note: \*2004 Data, \*\*2009 Data, \*\*\*2011 Data



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