# REGIONAL DEVELOPMENT AGENDA

## **CAGAYAN VALLEY:**

The Philippine's Prime Cereal Producer and Northern Gateway





REGIONAL DEVELOPMENT COUNCIL 2
Tuguegarao City
June 2010

Regional
Development
Agenda
2010-2020

Cagayan Valley: The Philippine's Prime Cereal Producer and Northern Gateway

#### Notes on the Cover:



- Port Irene, courtesy of the Cagayan Economic Zone Authority
- 2. Sierra Madre, courtesy of Conservation International Philippines
- $\begin{array}{ll} {\bf 3.} & {\bf Magat\ Dam,\ courtesy\ of\ the\ Department} \\ & {\bf of\ Tourism\ RO2} \end{array}$
- 4. Rice Harvest
- 5. Cagayan River, courtesy of the Department of Tourism RO2
- 6. Callao Caves, courtesy of the Department of Tourism RO2
- Rafflesia leonardi, photo taken by Dr. Julie Barcelona

### MESSAGE

Our country has once again shown its resiliency, posting positive growth – though modest in the past year despite the global economic crisis and the threat of worldwide AH1N1 pandemic which have affected even the biggest economies in the past year. Millions of jobs and livelihood were lost worldwide, creating uncertainty in our own economy. Our strong macroeconomic fundamentals, however, have proven beneficial in helping the country weather the storm.

These recent developments call for urgent responses to take advantage of the global economic rebound and prepare the regions for new challenges. The **Regional Development Agenda** (RDA) can thus be the roadmap of the regions for development in the next ten years.

I commend the NEDA Regional Offices, with the able guidance of the NEDA Regional Development Office-Central Office, for preparing the RDAs. The RDA serves as NEDA's contribution to the next administration as it prepares the development platform for the regions. I hope that the HEARTS concept which I have shared with NEDA and have been advocating to my fellow economic managers, would be able to provide a sound basis for future programs that would encourage social stability and economic advancement of the regions.

Let us all work together to attain this common goal towards a stronger economy. *Mabuhay tayong lahat!* 

Secretary of Socioeconomic Planning

10 August 2009

## FOREWORD

The preparation of the **Regional Development Agenda** (RDA) 2010-2020 is among the legacies of Secretary Ralph G. Recto as carried out by the NEDA Regional Development Office. This departs from the usual consultative process adopted in the formulation of the Medium-Term Regional Development Plan (MTRDP), as the RDA is purely a NEDA output. This document aims to provide the succeeding Administration with a starting document to guide the formulation of the Successor Regional Development Plans.

Guided by principles of sustainable development, economic integration, decentralization, public-private partnership, interplay of market forces, social equity and justice, and cultural diversity, the RDAs takes off from existing planning documents such as the National Framework for Regional Development, the National Framework for Physical Planning, the Regional Development Plans, and Regional Physical Framework Plans.

The RDA articulates the region's highest priorities based on an intersectoral and interarea analysis of the region and guided by the desired development scenario. The essential ingredients which include the development strategies, challenges and preconditions to achieve the regional development agenda are highlighted. **Technical Notes** are appended to the RDA, containing the detailed analysis of the planning environment and the issues at hand.

Secretary Recto's HEARTS concept (Health, Education, Agriculture and Environment, Roads/Bridges/Railroads, Trade and Investment/Tourism/Technology, Security) served as inspiration for the identification of regional development themes. Each region was given the flexibility to incorporate the HEARTS in relevant sections of their respective RDA.

We encourage all partners in government, the private sector and civil society to use the RDA as their guide for future development policies, programs and projects in the regions.

AUGUSTO B. SANTOS
Deputy Director-General
Regional Development Office
National Economic and Development Authority

## PREFACE

The Regional Development Agenda (RDA) CY 2010-2020 was formulated to guide the next Regional Development Council 2 in the crafting of the successor Regional Development Plan. The document has undergone a series of consultation participated in by line agencies, local government units, NGOs and HEIs.

The Cagayan Valley RDA is among the legacies of the officials and members of the Regional Development Council 2 (RDC2) CY 2007-2010 under the able leadership of his Eminence Bishop Ramon B. Villena. As such, the document will provide the next Council with a starting document that would guide them in formulation of the successor Regional Development Plan.

The RDA takes off from existing planning documents such as the Regional Development Plan CY 2004-2010, the Regional Physical Framework Plan, the Regional Investments Priority Plan, and the Regional Action Agenda for Productivity and Quality.

The RDA articulates the region's highest priorities and the essential ingredients needed to achieve the desired development scenario.

We call on all partners in government, the private sector and civil society to draw on the RDA in the formulation of future development policies, programs and projects in the Cagayan Valley Region.

June 2010



Republic of the Philippines

#### REGIONAL DEVELOPMENT COUNCIL

Region II

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RDC2 Resolution No. 02-29-2010 Series of 2010

#### "ADOPTING THE CAGAYAN VALLEY REGIONAL DEVELOPMENT AGENDA 2010-2020"

- WHEREAS, the Cagayan Valley Regional Development Agenda (CVRDA) CY 2010-2020 was formulated to guide the next Regional Development Council 2 in the crafting of the successor Regional Development Plan, that was subjected to a series of consultation participated in by line agencies, local government units, NGOs and HEIs:
- WHEREAS, the CVRDA takes off from existing planning documents such as the Regional Development Plan CY 2004-2010, the Regional Physical Framework Plan CY 2001-2030, the Regional Investments Priority Plan CY 2010-2012, and the Regional Action Agenda for Productivity and Quality CY 2009-2010;
- WHEREAS, the CVRDA will provide the next Council with a guide for formulation of the successor Regional Development Plan, and the region's provinces, cities and municipalities in crafting their local development plans;
- WHEREAS, the CVRDA articulates the region's highest priorities and the essential ingredients needed to achieve the desired development scenario;
- WHEREAS, it envisions the region to be the Philippine's Prime Cereal Producer and Northern Gateway by 2020 with the goal of an enhanced well-being of the people in the Cagayan Valley as it transforms the economy in an equitable and sustainable manner.
- WHEREAS, to achieve these, the CVRDA has identified four (4) foundations Environment and Disaster Risk Management, Infrastructure Enablers, Productivity and Quality in Participatory Governance, and Local Innovations that would be the or overarching guiding principles in the development of the Cagayan Valley Region;
- WHEREAS, five (5) strategic pillars designed to propel the regional economy to 2020 include: Diverse and Balanced Economy, Productive and Viable Farmlands, Energized Aquaculture and Capture Fisheries, Growth Nexus, and Wider Access to Quality Basic Services will buttress the attainment of the region's development outcomes.
- NOW THEREFORE, the RDC hereby RESOLVES, AS IT IS HEREBY RESOLVED, to ADOPT the Cagayan Valley Regional Development Agenda 2010-2020.
- RESOLVED FURTHER, that copies of Cagayan Valley Regional Development Agenda 2010-2010 be provided to the members of the Regional Development Council 2, and the provinces, cities and municipalities of the region to guide them in the formulation of their respective development plans.

APPROVED this 22<sup>nd</sup> day of June 2010 at Tuguegarao City.

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MIALL!

Certified Correct

RDC Secretary

Approved:

BISHOP RAMON B. VILLENA

RDC Chairman

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## Cagayan Valley Regional Development Agenda 2010-2020

#### WHERE WE ARE NOW

The Cagayan Valley Region performed basically well for CY 2006-2008 with improvements in the economy and the general well-being of its populace. While the region accomplished much during the period, the following discourse focuses on the major achievements and the critical factors that have affected its progress.

#### **Our Achievements**

Anchored on the strength of its agriculture, the Cagayan Valley Region maintained its rank as the country's top corn producing region during the period. It was also during this time that corn production grew remarkably by an average of 10% per year with an annual production of 1.3 million metric tons on the average. Corn productivity in the region showed an average yield of 3.37 MT per hectare, 56% higher than the national average of 2.14 MT per hectare.

Not to be outdone, palay production – second only to Central Luzon, increased by an average of 3.2% annually with a yearly production of 2 million metric tons. Average palay productivity for the period was recorded at 3.80 MT per hectare, 9% higher than the national average yield of 3.48 MT per hectare.

Contributing to the increase in production levels for both commodities particularly for palay is the increase in irrigation coverage from just 48% in 2006 to 53% in 2008.

The fishery sector made great progress as fishery production went up by nearly 20% from its 2006 level of 54,434 metric tons to 65,460 metric tons in 2008. While production from commercial fishery went down by nearly 14%, this was buoyed by the strong performance of its municipal fishery and aquaculture that grew by an average of 12% and 29% annually during the period with nearly 70% of the total fishery production contributed by these two.

The Cagayan Special Economic Zone and Freeport (CSEZFP) attracted greater interest with the number locators increasing from 56 in 2006 to 86, generating PhP 8.19 billion in investments for 2008 alone with 5,953 jobs created. Likewise, 53,464 jobs were generated by government programs mainly from the development of SMEs.

The relatively young tourism industry steadily grew as more tourists came to visit the region. Tourist arrivals increased by an average of 2.7% yearly with foreign tourist arrival growing by 15% per annum. In terms of tourist receipts, the region was able to generate an estimated PhP 1.45 million in 2006 and PhP 1.59 million in 2008; growing by an average of 3.89% per year. Domestic receipts constituted the bulk of the receipts with an 83% share.

The improvement in the region's economy saw Batanes and Quirino joining the 10 least poor provinces in the country. Likewise, the achievements of the region's economic sector redound to improved social condition.

Health conditions of the populace improved with lower levels of infant and child mortality rates, and better nutritional status of children. Infant mortality rates during the period decreased by an average of 7.7% per year with child mortality rates (U5MR) dramatically went down by an average of 65%. These brought down mortality rates from 133 per 100,000 5.15 in 2008. Likewise, the nutritional status of children slightly improved as the percentage of children Below

Normal/Very Low (BNVL) decreased from 0.86% in 2006 to 0.72% in 2008, and those children Below Normal/Low (BNL) from 9.14% to 7.38%.

Improvements in the access to safe water and electricity have been noted. As of 2008, around 84% of the 637,056 of regional households in 2008 have access to safe water. Likewise, 98.8% of the 2,311 barangays are now energized with 81% of the 530,141 households connected to the grid.

The region still has the second highest forest cover in the country with 1.15 million hectares, comprising 16% of the national forest cover of 7.17 million hectares. Likewise, Peñablanca and Quirino were declared as protected areas during the period bringing the total area of protected areas under the NIPAS to 962,552 hectares

The region's air transportation services had been given a big boost with the upgrading of the Bagabag Airport, the widening of Basco Airport's runways and the expansion of the San Vicente airstrip. Flights to the region have also increased in frequency and regularity and it has gone international with direct flights from mainland China to Tuguegarao City.

Telecommunications has never been so faster with mobile telephone services reaching the countryside, with 372 cell sites covering 91 out of the region's 90 municipalities and 3 cities, and all cities and capital towns are provided with broadband network service.

The region was able to develop local innovations for food processing, new and renewable energy, geotextiles and aquaculture feed formulation through mechanisms established by DOST Region 2 that enabled local innovators to scale up their innovations. Intellectual Property Help Desks, Science and Technology Advisory Groups, Food Safety Teams among others are in place to assist local innovators.

The region's 100% Local revenue collection targets were exceeded, with revenue collection recorded at 102%.

Increasing the morale of the region's civil servants where the string of national awards bestowed upon individuals or groups from the region. In 2008, two (2) two individuals from the region were conferred with the Lingkod Bayan and Dangal ng Bayan Awards.

#### The Challenges

Cagayan Valley remains a lagging region whose share of the country's GDP is only 1.99%, along with Region XIII (1.31%) and the Autonomous Region of Muslim Mindanao (0.87%). The comparative advantage of the region as producer of raw materials was not optimized because of lack of processing industries (e.g. food processing, feed mill). The specialization of the region in the cultivation of palay and corn that accounts for more than 91% of its harvested areas and 60% of employment would hinder its growth.

Considering that agriculture accounts for more than half of the region's GDP, any slow-down will counteract any gains made by the industry and services sectors. From CY 2004-2008, the region's GDP only grew by an average of 2.9% per year. While industry and services grew an average of 6.2% and 3.6% yearly, agriculture's low growth rate (average of 1.7% annually) has pulled down the averages. Without any drastic or radical changes to the current situation in the region, the economy would continue to weaken as GRDP growth contracted from a 7.7% increase between 2005-2006 to just 2% for 2007-2008.

For the past three years, the region was able to produce a considerable volume of grains, fruits and vegetables to meet the demand of Metro Manila and Regions 1, 3 and CAR, but productivity remained low. The irrigated rice lands produced an average of 4.26 metric tons per hectare, at its peak with yellow corn at 3.88 metric tons per hectare. While these figures were comparatively

higher than the country's average yield, it is far from the 7 metric tons per hectare of palay and 12 metric tons of corn harvested by other Asian countries.

With the ageing of the region's irrigations systems and the rising cost of construction materials, upkeep of these systems would be costlier. The construction of new irrigation systems to attain wider irrigation coverage would not be enough if the region cannot continuously repair and rehabilitate its old irrigation systems, affecting the region's palay productivity

While significant progress has been made by municipal fisheries and aquaculture in increasing regional fish production, commercial fish production declined by an average of 7% annually bringing down 2008 commercial fish production to just 16, 305 MT in comparison to 2006's 18,983.62 MT. The decline in commercial fishery can be traced to the rising cost of fuel prices and unfavorable weather conditions (design of commercial fishing vessels in the region are not suited for deep-sea or open ocean conditions).

The number of employed persons in 2008 (July 2008 LFS) stood at 1.3 million with agriculture absorbing 60% of those employed. Of the 463,800 employed in industry and services, 88% are in the region's mSMEs and trading services.

Investments on industry and services remained low and mostly concentrated in the Cagayan Special Economic Zone and Freeport.

Taking into account that more than 80% of the region's population reside in the rural areas and mostly dependent on agriculture as their main source of livelihood, poverty in the region increased from 19.3% in 2003 to 20.5% in 2006 with the magnitude of poor families increasing from 113,298 to 126,726.

While the region's has committed to attain the Millennium Development Goals (MDGs), data shows that: crude death rate has slightly risen from 4.01 (per 1,000 population) in 2006 to 4.33 in 2008; maternal mortality rate (per 100,000 live births) has started to increase from just 0.39 in 2007 to 0.51 in 2008; results of the SY 2006-2007 National Achievement Tests show that the region's MPS have been improving in both elementary and secondary education but still fell short of the targeted mean percentage score (MPS) of 75% at 58 and 43.6, respectively.

The Cagayan River, one of the region's major assets, had brought with it, its share of problems. The meandering of the river had caused the erosion of its riverbanks bringing along with it rich agricultural lands. Likewise, river swelling and flooding have resulted to crop damages.

The region's vulnerability to typhoons had caused costly and substantial damages to agricultural crops, vital infrastructure and properties as a result of floods landslides and other destructive effects.. Tens or even hundreds of million pesos have been poured into relief and rehabilitation efforts annually. Droughts have also wreaked havoc on the region's economy with its agriculture sector suffering an 8.82% decline in the sector's GVA between CY 2004 and 2005.

In efforts to manage, protect and maintain the integrity of the Sierra Madre, the remaining unproclaimed protected areas within the Sierra Madre Biodiversity Corridor should be brought under the NIPAS. One of this is the Northeastern Cagayan Protected Landscape and Seascape aimed to protect and conserve the integrity of the landscape found in the Sierra Madre mountain ranges. This would establish a solid block of protected area system adjoining the Northern Sierra Madre Park and the Peñablanca Protected Landscape and Seascape previously declared as protected areas.

One of the keys towards the economic success of the region is the provision of infrastructure facilities and utilities base to support it. The region's major egress/ingress point in the south – the Dalton Pass – has been constantly plagued with land and rock slides thus closing the road and

delaying the transport of goods in and out of the region. Likewise, island municipalities, coastal towns and interior barangays are hard to reach or are virtually inaccessible due the lack of all-weather ports, and roads (or their absence) that has hampered the delivery of goods and services. The high cost of power has become a deterrent to big business entering the region, not to mention the deficiency in transmission lines that need to be upgraded from its current 69 kV to 230 kV.

The crime solution efficiency declined to 87.06 due to the abrupt increase of crime volume in the region. Inevitably, with the improvement of the region's economy and increasing population due to in-migration, crime incidence has increased. The 2008 average monthly crime rate in the region was recorded at 4.79 per 100,000 population.

While local revenue collection efficiency increased for the period, the reverse holds true for national revenue collection efficiency. VAT collection efficiency drastically declined to 72.64% during in 2008 due to the decrease in the demand of local products for export due to Global Financial Crisis. Businesses engaged in retail and wholesale have likewise experienced inventory slow down where demand in the local markets drastically declined. Likewise, Income Tax and Other Collections fell short as it posted an average of 94.02% collection efficiency rate. On the other hand, collection efficiency of Excise Tax has significantly increased by 134.92%, followed by Percentage Tax with 102.73%. Even with the higher collection rates for excise and percentage taxes, the region still fell short by 10.88 percent of its targeted collection efficiency of 100%.

Making the government competitive has been a key concern of the national government. Along this, several policy pronouncements were issued in CY 2006 and 2007 with the objective of attaining public service efficiency. Notable features of these issuances include the adoption of ISO 9001:2000 - aligned QMS in all government institutions. To date, the Department of Science and Technology Regional Office 2 (2009) is only the ISO 9001:2000 compliant agency in the region. Likewise, the agency's Regional Standards Testing Laboratory has been granted an ISO 17025 certification.

As our key development stakeholder, the private sector should be fully tapped and participate in governance. The partnership between government and the private sector would more effectively provide services and infrastructure traditionally provided by the public sector.

#### WHERE WE WANT TO GO

#### The Regional Development Framework

A major challenge is to make the economy more stable, more diverse and to make it grow steadily. Since most the poor are in the rural areas, the modernization of agriculture is essential to reduce poverty in the region.

Relevant to this is the importance of the Cagayan Valley in ensuring food sufficiency for the country. Under the North Luzon Agribusiness Quadrangle (NLAQ) program, Cagayan Valley Region was assigned the role as a major agricultural bowl given the abundance of agriculture lands that are suitable for the growing of traditional and high value crops including marine and forest resources for fishery and agro-forestry production. Aside from consistently providing **big volume of grains**, the establishment of the Department of Agriculture Central Office in Ilagan, Isabela was a clear acknowledgement of the new role of the region as the "Food Basket of the Philippines." Further, the creation of the Cagayan River Basin PMO is expected to ensure proper utilization of the water resources of the region and therefore further increase its yield and harvest. Meantime, the Cagayan SEZFP has a seaport and soon an international airport, and has great potentials to serve as a port of entry of passengers and cargoes not only for the Freeport but for the rest of Luzon as well. It is expected to emerge as another **gateway in the north**. The

Regional Development Agenda for 2010 to 2020 is therefore underpinned by the regional vision to be "The Philippine's Prime Cereal Producer and Northern Gateway".

The Strategic Framework takes into account the principle underlying HEARTS. By providing and/or improving the state of **H**ealth and safety, **E**ducation, **A**gro-industry and services with jobs, **R**ural-urban growth centers links, **T**ransport and communications, and **S**ustainability and governance, we are infusing new life to the region and its population. The healthy HEARTS of its population would enable them to live productive lives thus contributing to the region's prosperity. Likewise, with strong and confident HEARTS, the region would be able surmount every obstacle and compete in the global arena.

The end-in-view of framework is a well-educated. healthy and productive who are able to better provide the needs of their families; fully participate in decision-making; and voice-out and act on concerns affecting them with all of these done in safe and secure communities. These would possible with economic prosperity that the five strategic pillars of diverse and balance economy, productive and viable farmlands, energized aquaculture and capture fishery and growth nexus would bring. Firming up the base for the region's economic growth are the four foundations of environmental and disaster risk management, infrastructure enablers, productivity and quality in participative governance, These four are the innovations. overarching guiding principles in the development of the Cagayan Valley Region.

#### **Our Vision**

To provide direction to the preparation of the region's long-

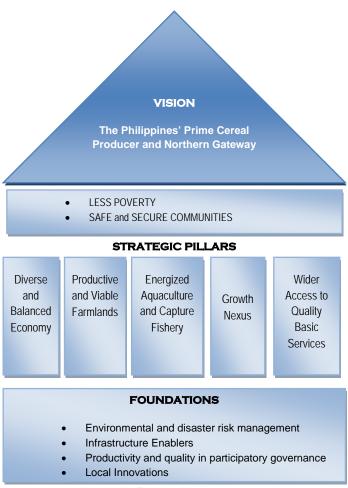


Figure 1. Strategic Framework

term plan, a vision has been crafted that expresses the aspirations of the region's people until 2020. The Cagayan Valley Region is envisioned to be "The Philippines' Prime Cereal Producer and Northern Gateway".

This regional vision will be achieved through a general strategy of enhancing the well-being of the people in the region as it transforms the economy in an equitable and sustainable manner. Five strategic pillars will drive economic growth in agriculture, industry and services, at the same time providing health care, education and other social services to its people. These are intended to result to social development, thus lessening poverty and empowering the people with education, health and other services. All interventions are undertaken in consideration of important foundations which will include environmental and disaster risk management, infrastructure support, participatory governance and local innovations (Figure 1).

Our goal is to enhance the well-being of the people in the Cagayan Valley as we transform the economy in an equitable and sustainable manner.

#### The Results

#### **Less Poverty**

Greater prosperity has equated to better education, health and nutrition, social welfare and security, housing, among others. In turn, the healthy and well-educated citizens serve as the productive manpower core of the region's industries and businesses.

With greater income at the people's disposal, lesser dependence will be placed on the government to provide for their basic needs. Government assistance can now place premium on quality and accessible lifelong learning, from early childhood development to primary, secondary, and tertiary learning consisting of a ladderized interface between technical-vocational and college education for those who have lesser access to social services.

#### **Safe and Secure Communities**

The region's population lives in an atmosphere conducive to economic activities and raising a family where harmony between development and environment exist.

Risk reduction and management is given primordial importance considering the region's vulnerability to drought, typhoons, flooding, and the presence of natural hazards. Strategies, policies and actions along disaster risk management are given priority by all government units to mitigate the effects of disasters at the household level.

Strong linkages of communities with law enforcement agencies will lead to greater crime prevention and the maintenance of peace and order. Law enforcement agencies have given priority towards the empowerment of the citizenry to secure their respective communities. Likewise law enforcement agencies have prioritized the provision of maximum fund allocation to meet the standard ratio of their personnel to the population served.

#### The Five Pillars

The following strategic pillars were designed to propel the regional economy to 2020. These pillars will buttress the attainment of the region's development outcomes.

#### **Pillar 1: Diverse and Balanced Economy**

For the next 10 years, the region will move towards agriculture-based processing industries with the development of other industries and services will be accelerated. Diversification towards hotels and restaurants, health wellness and tourism, food processing, construction, mining and into the new economic growth sectors such as energy, IT-based industries (call center, cyber services, etc.), environmental services, financial services and creative industries will therefore help spur further economic activities in the region.

Diversification towards Hotels and Restaurants, Health, Wellness and Tourism, Food Processing, Construction and into the new economic growth sectors such as energy, environmental services, financial services and creative industries will help spur further economic activities in the region.

However, the region needs to create its own market niche. A market niche or niche market addresses a need for a product or service that is not being addressed by mainstream providers. For instance, instead of CEZA offering cyber services, it has established a niche market by

specializing in internet gaming. In the case of rice farmers, instead of selling rice commonly sold in the region's markets, they created their own market niche by providing the so called "Eden" rice to the country's huge food chains.

Also, entrepreneurship shall be largely promoted to advance economic development.

#### **Pillar 2: Productive and Viable Farmlands**

The region should have a strong and prosperous agriculture sector taking into consideration that it accounts for more than 50 percent of the regional economy and the biggest employer in the region.

An increase in productivity is needed to fulfill her commitment as country's major supplier of grains and its new food basket, and ensure adequate inputs to her industries.

At the same time it is pushing for agricultural growth, but more focus shall be placed on the cultivation of high value commercial crops such as mango, banana, citrus, peanut, coconut, coffee and tomato, which have great potential for high returns and competitiveness, and high jobgenerating capacity. Likewise, greater emphasis shall be placed in linking agricultural production to agro-based food processing activities. The role of the private sector in the development of agri-based industries is encouraged. Likewise, there is a need to indentify and delineate arable lands viable for plantation crops like coconut, cassava, cacao, etc.

To encourage the cultivation of high-value crops, market outlets for these commodities should already be established. Readily available markets would guarantee that the produce of her farmers would be bought at reasonable prices.

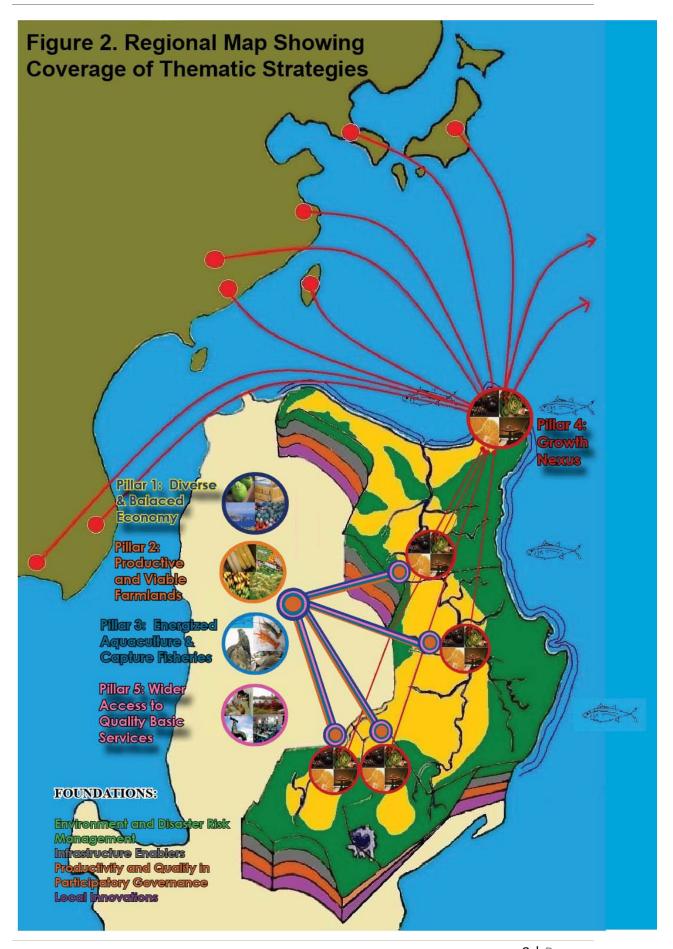
In tandem with market development, state-of-the-art post-harvest facilities such as cold storage plants, grain silos and temperature-controlled storage houses should be provided to safeguard the quality of our produce and command more competitive prices.

#### Pillar 3: Energized Aquaculture and Capture Fishery

The eastern seaboard and the Cagayan River should be maximized for fishery development. While municipal fishing and aquaculture have expanded, commercial fishery should be revitalized by opening up ports in the Pacific side. The revitalization of her commercial fishery should be directed towards the development of her deep-sea commercial fishery fleets to take advantage of her vast territorial waters including the country's 200 km Exclusive Economic Zone (EEZ). Likewise, laws to address the problems on illegal fishing and poaching shall be strictly enforced. Together with the development of aquaculture and capture fishery are the provision of cold storage vans and the construction cold storage plants to store excess production.

An energized aquaculture would require the culture of fish species with high market and export value such as groupers, sea urchins and cucumbers, abalones and other marine species that the region has a comparative advantage. Together with the culture of marine fish species the region will further promote the culture of tilapia, catfish and *pangasius* and other freshwater fish species to continuously improve the region's fish sufficiency levels.

Likewise, continuous technical and financial assistance will be provided to artisanal fishermen to boost their productivity.



#### **Pillar 4: Growth Nexus**

The development of the region will take full advantage of the presence and development of the CSEZFP as the growth nexus. Priority industries such as agriculture, fisheries, tourism and other economic activities will be physically and economically linked to the CSEZFP's the facilities and services for complementation. A deliberate linkage and complementation of the different (hierarchy of) Centers in the region will be worked-out starting from the municipal OTOPS which will be clustered to strengthen and ensure sustainability of production areas.

Puting-up of this pillar is anchored on the full development of the CSEZFP and the parallel development of specialized zones such as Santiago City's I.T. Park, Aparri's Ecozone, and the region's growth centers. The different OTOPs and tourism/tourism packages would have to be integrated in the activities of these zones or growth centers. The small-scale business enterprises in the growth nexus should be supportive and complementary towards a common direction, which is to support the pivotal role of its node – the CSEZFP being the region's transshipment hub both for domestic and global business interface, and the other growth centers in the five provinces.

Forging business partnership is imperative in order for small-scale industries to penetrate the local and global markets, which is normally dominated by big firms. The region shall promote the establishment of industry cluster. Moreover, technological innovations become necessary in order to become globally competitive. The strengthening of international linkages is crucial in attaining a critical mass for the region's tourism, agriculture and fishery. To this effect, both the NLAQ and CEZA will be utilized to facilitate such linkages.

#### **Pillar 5: Wider Access to Quality Basic Services**

The fifth pillar encompasses the achievement of the ultimate social well-being of the Region's populace. An educated, healthy, and well-nourished citizenry equates to a performing populace in terms of economic productivity. Towards this end, priority shall be given towards achieving universal primary education, eliminating gender disparity in primary and secondary education, reduce maternal mortality rates, halting and reversing the spread of HIV/ADIS, malaria and other major diseases, and providing access to affordable essential drugs. Likewise, the region has to maintain the gains it has made along the reduction of infant and child mortality rates, increased access to reproductive health services among others.

Because the attainment of most of these are dependent on the support of local government units, significant progress can be attained only if LGUs vow a strong commitment to align their programs, projects, and activities along these needs. Moreover, there is a need to enhance coordination and cohesion of all government and non-government agencies involved in social development. Such an improvement will mean the focusing of limited resources to specific social issues or concerns.

#### The Foundations

Any structure is only as weak or as strong as its foundation. To support properly and strongly the pillars, the outcomes and the expressed vision, the region has laid down these development foundations.

#### **Environment and Disaster Risk Management**

In anticipation of population growth, the region must be sensitive in protecting and managing the natural environment which is the foundation of its overall sustainability. The protection of her natural resource, agriculture lands, preservation of public and private open space along with the continued dedication of parklands and recreational facilities would sustain biodiversity and provide valuable benefits and amenities that are critical to sustaining life. Likewise, the natural environment provides scenic beauty and a sense of natural presence for its local community.

Efforts are geared towards the proclamation of other protected areas along the Sierra Madre Corridor. The proclamation of these protected areas would protect and preserve the mountain range's biodiversity. The region's forests reserves and watershed areas are to be preserved and protected. They do not only act as a venue for habitat and biodiversity protection, but also serve as avenues for recreation, tourism, research and education. However, the vulnerability of these protected areas to climate change should be assessed to determine the extent by which their overall conditions would be affected by such change in the climate.

The Cagayan River and its 18 major tributaries are among the major assets of the region. These rivers provide water for agriculture, industrial and household use and play a significant role in human settlements. Thus, there is a need guide the water and land management along the Cagayan River and its tributaries in order to harmonize its multiple uses and maintain its quality, characteristic and aesthetic values.

Considering the region's vulnerability to drought, typhoons, flooding, and the other forms natural hazards, the communities need to adapt to these phenomena. Strategies, policies and actions along disaster risk management and climate change adaptation should be given priority attention by all stakeholders. Likewise, Disaster Risk Reduction/Climate Change Adaptation will be mainstreamed in the local development plans and local decision-making processes. Managing these risks will help mitigate their impact on regional development.

#### **Infrastructure Enablers**

Access and mobility are keys to the region's socioeconomic development. In order to improve these, the construction of additional entry and exit points such as the Northeastern Luzon Expressway is critical. The construction would address the problem of Dalton Pass' frequent closure, and would provide open and all-weather roads that are critical to her development. Likewise, roads and bridges that would link her production areas to the market centers are of vital import. These roads and bridges would not only help be bringing goods in and out of these areas but also aid in the delivery of basic services, and getting them into the mainstream of the society.

To integrate to activities of CEZA, NLAQ and the other growth centers with the OTOP municipalities and the region's tourism packages, and the region's air (e.g., Lal-lo International Airport), seaports (e.g., Port Irene) and the RORO systems are of crucial import. Likewise, Information and Communications Technology would have to link them all together to provide efficient and reliable means of telecommunications.

Speedy and reliable modes of telecommunications that would enhance the exchange of information between government units, business and its citizens are needed towards the attainment of the region's vision for 2020.

The availability of efficient and affordable power supply shall be given priority through the electric cooperatives. Likewise, renewable energy sources such as wind, solar and hydro power shall be tapped for off-grid and remote communities or those where the cost of transporting diesel or bunker fuel is too prohibitive.

#### **Productivity and Quality in Participatory Governance**

Greater productivity and quality in government is a backbone of development. As such, the enhancement of administrative capacities and service delivery system of regional and local governance; increased level of transparency, accountability and responsibility in government; and

ensure responsiveness and participation of stakeholders in governance shall be given due importance.

Good governance in the Cagayan Valley will result to improved government expenditures, lesser processing time for business transactions, enhance government credibility and respectability and increased confidence in government.

Towards this end, the region will adopt:

- LGU capability building activities
- E-Governance
- Citizens Charter
- ISO Certification of RLAs and LGUs
- Strengthening of Public-Private Sector Partnership

The Regional Government Center (RGC) demonstrates the government's major advocacies on sustainable development, urban regreening, and climate change adaptation and mitigation. The development of the RGC is critical in providing efficient and convenient access to government services.

Likewise, to ensure growth in productivity and eventually, economic growth, the region needs to secure peace and order, a stable policy environment and protection of business. Processes or systems that promote basic human rights will be adopted and implemented.

#### **Local Innovations**

Innovations, especially those that are developed locally, or grassroots innovations, have proven to foster entrepreneurship and generate employment. They can invigorate existing industries, and allow individuals and firms to improve their productivity and that of the region. The region will encourage innovation and protection of intellectual property rights. Business incubation should be supported and research collaboration should be encouraged.

The strengthening of the linkage between grassroots innovation and the formal science and technology that has already been established through the Department of Science and Technology should be continued and the region's research institutions should also provide enabling mechanisms for local innovations. The linkage between GRI and formal S&T is important to facilitate the wider dissemination of value-added technologies.

## The Planning Environment

## LOCATION, LAND AREA AND POLITICAL SUBDIVISIONS

#### Location

Cagayan Valley lies in the northeastern tip of the Philippines. It is bounded by three big mountain ranges namely, Cordillera on the west, Caraballo on the south and Sierra Madre on the east. On the north is the Babuyan channel where the Cagayan River drains.

#### **Political Subdivisions**

The region has five provinces namely, Batanes, Cagayan, Isabela, Nueva Vizcaya and Quirino, covering a total of 10 congressional districts, 3 cities, 90 municipalities and 2,343 barangays. The Cagayan River flows through the mainland provinces.

#### **Land Area**

The region's land area is the fourth largest in the country. It has a total land area of about 2,683,758 hectares which is 9% of the total area of the Philippines. Out of these, 965,965 hectares are alienable and disposable (A & D) lands, and 1,717,793 hectares are forestlands. The forest land areas are further categorized into Production forest, with 929,630. 802 hectares and Protection Forest, with 788,162.198 hectares.

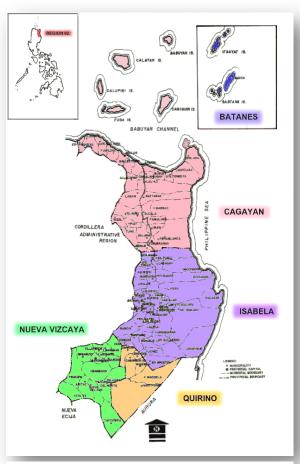


Figure 3. Location and Political Subdivisions, Cagayan Valley Region

#### **POPULATION**

#### Population: National and Regional Context

As of the 2007 census, the Cagayan Valley region had a population 3.05 million and a population of 114 persons per square kilometer (Table 1). Between 2000 and 2007, the region's average population growth rate was at 1.17, slower than the 2.25 APGR during the last decade (2000-1990).

Region 2 had fourth lowest population level among all regions in 2007, constituting only 3.44% of the country's population for the same year. If its 2000-2007 population growth rate is maintained, the Cagayan Valley Region will only double its population in 2066.

Table 1. Population, Annual Population Growth Rate, Density, Area, by Region, Philippines, 2000, 2007

Region	Pop2000	Pop2007	Pop2007	APGR	Density	Density	Area	Area
Region	F0β2000	F0p2007	% Share	2000-2007	2000	2007	(sqkm)	(sqkm)%
National Capital Region	9,932,560	11,553,427	13.04%	2.11	15,617.23	18,165.77	636.00	0.21%
Cordillera Administrative Region	1,365,412	1,520,743	1.72%	1.5	74.64	83.13	18,293.68	6.10%
Ilocos Region	4,200,478	4,545,906	5.13%	1.1	327.14	354.04	12,840.19	4.28%
Cagayan Valley	2,813,159	3,051,487	3.45%	1.17	104.82	113.70	26,837.58	8.95%
Central Luzon	8,030,945	9,720,982	10.97%	2.36	440.51	533.22	18,230.82	6.08%
IVA- Calabarzon	9,339,618	11,743,110	13.26%	3.21	553.80	696.32	16,864.60	5.62%
IVB - Mimaropa	2,299,229	2,559,791	2.89%	1.49	83.74	93.23	27,457.20	9.15%
Bicol Region	4,686,669	5,109,798	5.77%	1.2	265.80	289.79	17,632.49	5.88%
Western Visayas	6,211,038	6,843,643	7.73%	1.35	307.13	338.41	20,223.11	6.74%
Central Visayas	5,706,953	6,398,628	7.22%	1.59	389.52	436.72	14,651.42	4.88%
Eastern Visayas	3,610,355	3,912,936	4.42%	1.12	168.46	182.58	21,431.69	7.14%
Western Mindanao	2,831,342	3,230,094	3.65%	1.83	176.99	201.91	15,997.34	5.33%
Northern Mindanao	3,505,708	3,952,437	4.46%	1.67	152.43	171.86	22,998.43	7.67%
Southern Mindanao	3,676,163	4,156,653	4.69%	1.71	135.45	153.15	27,140.59	9.05%
Central Mindanao	3,222,169	3,829,081	4.32%	2.41	224.19	266.41	14,372.74	4.79%
ARMM	2,803,045	4,120,795	4.65%	5.46	241.47	354.99	11,608.29	3.87%
Caraga	2,095,367	2,293,480	2.59%	1.25	212.05	232.10	9,881.47	3.29%
Philippines	76,504,077	88,574,614	100.00%	2.04	255.01	295.25	300,000.00	100.00%

Source: National Statistics Coordination Board

#### Population Size, Density and Growth Rate

#### Size and Distribution

The province of Isabela had the largest population among all provinces in the region with an estimated population of 1,160,997 (excluding the cities of Cauayan and Santiago) in 2007. Isabela accounts for 38% of the region's population in 2007 and occupies 37.37% of its total land area (Table 2).

Together with Cagayan, they account for 68% of the population, while occupying 70% of the regional land area.

It is only the province of Batanes that has decreased its share of the total regional population and exhibited a decline in its population between the 2000 and 2007 census. All other provinces exhibited an increase in their population by an average of 1.22.

Tuguegarao City had the highest population among the three cities with an estimated population of 129,539 in 2007. It accounted for 4.25% of the regional population and 35% of the combined population of the three cities.

However, population of the cities of Cauayan and Santiago grew faster than that of Tuguegarao's with an average population growth rate of 1.36 and 1.47, respectively between the 2000-2007 censal years. These are higher than the regions' APGR of 1.17 for the same period.

These population growth trends suggest that both Isabela and Cagayan still remains the biggest driver of population growth in the region.

#### **Density and Growth Rates**

Isabela had the highest population density (131 persons per square kilometer) which is higher than the regional average of 114 persons per square kilometer, but lower that the national figure of 295 persons of square kilometer. The province of Quirino had the lowest population density (53 persons per square kilometer) among the five provinces of the region.

Among the provinces, the population of Quirino is growing the fastest with an APGR of 1.39. This is in stark contrast to the dwindling population of Batanes which shrank by 0.43 (APGR).

Table 2. Population, Annual Population Growth Rate, Density, Area, Region 2, by Province, 2000, 2007

R egion	P op 2000	P op 2007	Pop2007 % Share	APGR 2000-2007	Density 2000	Density 2007	Area (s qkm)	Area (s qkm)%
Batanes	16,467	15,974	0.52%	(0.43)	78.68	76.32	209.30	0.78%
Cagayan	872,935	943,032	30.90%	1.11	98.55	106.46	8,857.90	33.01%
Isabela	1,073,092	1,160,997	38.05%	1.13	106.99	115.76	10,029.60	37.37%
Nueva Vizcaya	366,962	397,837	13.04%	1.16	94.00	101.91	3,903.90	14.55%
Quirino	148,575	163,610	5.36%	1.39	48.60	53.52	3,057.20	11.39%
Cauayan City	103,952	114,254	3.74%	1.36	273.41	300.51	380.20	1.42%
Santiago City	110,531	126,244	4.14%	1.92	432.61	494.11	255.50	0.95%
Tuguegarao City	120,645	129,539	4.25%	1.02	833.18	894.61	144.80	0.54%
Cagayan Valley	2,813,159	3,051,487	100.00%	1.17	104.82	113.70	26,837.58	100.00%

Source: National Statistics Coordination Board

For the cities, Santiago City is the fastest growing city with an APGR of 1.92 with a population density of 494 persons per square kilometer. However, Tuguegarao City had the highest population density in 2007 which is estimated at 895 persons per square meter.

Table 3. Projected Population, Density, Area, Region 2, by Province, 2007, 2020

R egion	P op 2007	P op 2020	Pop2020 % Share	APGR 2000-2007	Density 2007	Density 2020	Area (s qkm)	Area (s qkm)%
Batanes	15,974	17,355	0.55%	(0.43)	76.32	82.92	209.30	0.78%
Cagayan	943,032	1,087,155	34.53%	1.11	104.75	120.76	9,002.70	33.55%
Isabela	1,160,997	1,359,231	43.17%	1.13	108.86	127.44	10,665.30	39.74%
Nueva Vizcaya	397,837	489,016	15.53%	1.16	101.91	125.26	3,903.90	14.55%
Quirino	163,610	195,770	6.22%	1.39	53.52	64.04	3,057.20	11.39%
Cauayan City	114,254	124,134	3.94%	1.36	300.51	326.50	380.20	1.42%
Santiago City	126,244	145,538	4.62%	1.92	494.11	569.62	255.50	0.95%
Tuguegarao City	129,539	151,657	4.82%	1.02	894.61	1,047.36	144.80	0.54%
Cagayan Valley	3,051,487	3,148,528	100.00%	1.17	113.70	117.32	26,837.58	100.00%

Source: National Statistics Coordination Board

By 2020, the regional population would have grown to an estimated 3.15 million with Isabela still accounting for the largest share of the population 43%. Together with Cagayan, they now account for 78% of the region's population in 2020 increasing by 10 percentage points over 2007's figure.

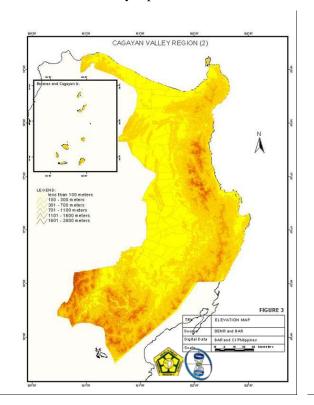
Tuguegarao City still had the largest share of the combined population of the three cities at 36% and the most densely populated community in the region with a population density of 1,047 persons per square meter.

#### PHYSICAL RESOURCES

#### **General Land and Water Characteristics and Resources**

#### **Topography**

Topography is generally sloping. About 40 percent of the land is mountainous or with slopes greater than 30 degrees. This is followed by undulating to hilly terrain (8 to 30 degrees slope) and lowlands (below 8 degrees slope) at 31 and 29 percent of total area respectively (Figures 4 and 5). Lands with elevation from 0 to 500 m. above sea level (ASL) represent about 92 percent of the total area while only 8 percent have an elevation between 500 to 1000 m. ASL (Figure 4).



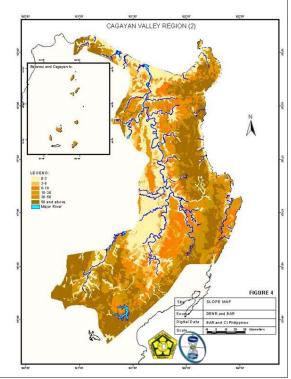


Figure 4. Elevation Map

Source: RDC2-Regional Geographic Information Network

Figure 5. Slope Map

Source: RDC2-Regional Geographic Information Network

#### **Water Resources**

The region has the largest possible dam and reservoir sites among all regions in the country. It also has the biggest river basin, the Cagayan River Basin, with a drainage area of about 2,730,00 hectares and groundwater reserve of 47,895 MCM (**Figure 6**). Groundwater storage capacity is placed 11,850 MCM with estimated gross inflow of 7,186 MCM and net inflow of 3,593 MCM per year. The Cagayan River has three major tributaries: Ilagan River, which drains a major portion of the eastern watersheds, Magat River that draws water from the southern portions, and Chico River covering northwest areas.

Both inland and marine waters make up a considerable resource. Rivers, swamps and lakes have an aggregate area of 22,724 hectares. There are about 890 kms. of coastline and rich fishing grounds, particularly within the Babuyan and Balintang Channels on the north and the Palanan

and Divilacan Bays on the east, including its territorial seas within the 200 kms. Exclusive Economic Zone (EEZ).

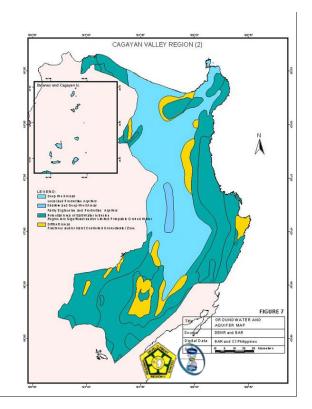


Figure 6. Groundwater Map

Source: RDC2-Regional Geographic Information Network

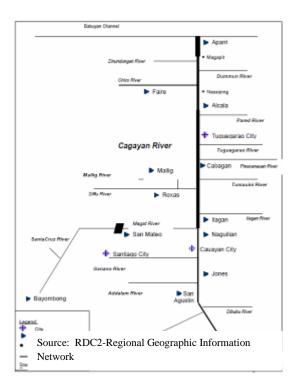


Figure 7. Schematic Diagram
Showing the Cagayan River and Its
Major Tributaries

#### Watershed Areas

Majority of the proclaimed Watershed Reserves are situated in the province of Nueva Vizcaya. A total of 515,520 hectares has been proclaimed in said Province. These are Casecnan River Watershed Reservation, Dupax Watershed Reservation and Magat River Forest Reserve, which has the largest area. There's only one watershed reserve in the Province of Isabela, the Tumauini Watershed Reservation covering 17,670 hectares. This area covers the municipalities of San Pablo, Cabagan, Tumauini, Maconacon and Divilacan. NIPAS (Network of Integrated Protected Areas System) areas include the idle and wilderness areas in Palanan with 50 kilometers radius covering Cagayan and Isabela. In the Province of Cagayan, two (2) Watersheds have been proclaimed and these are located in the municipalities of Lallo and Gonzaga, having a total area of 15,987.0 hectares.

#### **Geological Features**

There are several minor faultlines but most of these are inactive, only the Digdig Fault is active as manifested by the 1990 killer earthquake. There are also about four minor volcanoes located in the province of Cagayan and off its northern coast. While these volcanoes are considered dormant, the Mt. Pinatubo tragedy and the reported Smoke emissions of one of these volcanoes (Mt. Didicas) off Camiguin Island, necessitate the conduct of studies and preparation to anticipate their possible reactivation.

#### Climate

The region falls under four climate types generally characterized by Type III, not very pronounced seasons or dry from November to April and wet during the rest of the year in the region's western flank or valley areas; Type IV with rainfall more or less evenly distributed throughout the year in the region's eastern flank, Type II in the island municipalities of Batanes Province and Type I with two pronounced seasons, dry from November to April and wet during the rest of the year in the western portion of the province of Nueva Vizcaya and the northwest tip of Cagayan province. Rainfall varies from 1600 mm. in the valley areas to 4400 mm. in the mountainous areas. Regional annual average rainfall is 2600 mm. Temperature ranges from a low of 17oC during the period of November to February, to a high of 35oC during the months of April to June, with May as the warmest and January the coldest months. High humidity prevails, ranging from 70% and 90%, with an annual mean of 76%. Tropical storms are common between May and November, averaging about twelve per year.

#### Mineral Land.

The Sierra Madre Mountain Range is not only endowed with rich forest and water resources. It is where significant deposits of metallic and non-metallic mineral resources are concentrated. The ultramafic rock complexes in the Sierra Madre range are host rocks to chromite, nickel and other related deposits. Rich deposits of gold, silver, copper and white clay can be found in Nueva Vizcaya, Quirino and the southern parts of Isabela while iron deposits and related minerals are found along the northern coasts.

#### **ECONOMY**

#### **Gross Regional Domestic Product**

The region's Gross regional Domestic Product reached a total of Php 27.68 Billion in CY 2008, in constant 1985 prices. However, the region shared the least contribution to the nation's Gross Domestic Product Luzon Area at an average contribution of 2.03% (from CY2002 to CY 2008) and surpassing only the region's of CARAGA and CAR in the national level. The economy grew by 2% in CY 2008, and has been growing in the last seven years at an average of 3.57%. The region got its biggest growth in CY 2004 at 9.5% but significantly shrunk in the following year at a negative rate of -4.2%. Despite the positive trend in the last seven years, the region was still slow paced as compared to the other regions, with the national average at 5.41% in the seven year period.

#### Gross Value-Added (GVA) By Sector

The regional economy maintained its strength in Agriculture, Fishery and Forestry sector at Php 13.86 Billion in CY 2008 corresponding to a 50.1% share. For CY 20002-2008, more than half of the region's GRDP was from the sector with an share average of 50.6 %. It can be seen further that the region has strong dependence in the sector in the past years as can be seen in its yearly percentage share which is less dispersed from the average (from as low as 49% to as high as 52.1%). With such, the sector has the strongest pull in the GRDP. In 2004, with the sector growing by 15%, GRDP showed a 9.4% growth. In the following year, however, the sector's output showed a -8.8% decline and in turn, GRDP declined by -4.2%. The sector's growth was unstable though as it is affected largely by the volatility of farm inputs and weather conditions.

Table 4. Gross Regional Domestic Product, By Region, In Constant 1985 Prices (In Thousand Pesos)

Area	2002	2003	2004	2005	2006	2007	2008
Philippines	1,023,101	1,085,072	1,154,295	1,211,452	1,276,156	1,366,493	1,418,952
NCR	313,841	332,102	360,893	388,160	414,438	446,669	468,382
CAR	25,585	26,114	27,190	27,412	28,397	30,413	30,957
Region I	31,221	32,397	34,153	35,965	38,173	40,351	41,230
Region II	21,558	22,612	24,763	23,732	25,524	27,154	27,684
Region III	92,562	97,794	99,754	102,486	107,039	113,374	117,724
Region IVA	134,823	140,746	146,760	150,558	156,688	165,060	168,300
Region IVB	28,836	30,437	31,716	33,759	34,293	37,649	38,820
Region V	29,297	31,027	32,811	34,496	35,394	38,060	39,702
Region VI	75,286	77,370	83,375	87,553	91,866	98,907	103,272
Region VII	71,831	75,803	81,273	86,151	90,298	98,080	101,366
Region VIII	23,066	24,552	25,857	26,702	28,094	28,955	29,998
Region IX	27,366	28,722	29,920	31,997	32,676	35,042	35,806
Region X	44,070	52,263	56,090	58,582	62,729	67,557	71,170
Region XI	46,134	49,940	53,254	55,455	57,876	61,676	63,987
Region XII	36,224	38,698	41,010	41,961	44,741	47,722	49,939
CARAGA	12,250	14,539	14,994	15,594	16,637	17,921	18,487
ARMM	9,149	9,956	10,481	10,888	11,291	11,904	12,129

Source: National Statistics Coordination Board

Despite this strength, the GVA from this sector of the region constitutes only 5.34% of the aggregate national income from agriculture, fishery and forestry. This explains largely why the region's contribution to Gross Domestic Product was minimal.

Meanwhile, the industry and services sectors have average contributions of 15.3% and 34.1% respectively in the year. The contributions of these sectors also grew by an average of 1.77% and 4.36%, respectively. While there was also growth in these sectors, they maintain less preference as compared to agriculture. Industry and services contributions to GRDP ranged from 14.2% to 16.8% and from 32.8% to 35.5%, respectively – less dispersed from the average.

Table 5. Gross Value-Added, By Industry Sector, In Constant 1985 Prices In Thousand Pesos

Industry	2002	2003	2004	2005	2006	2007	2008
GRDP	21,558,450	22,611,506	24,762,901	23,731,958	25,523,962	27,153,693	27,684,068
Agriculture, Fishery and Forestry	10,568,006	11,384,997	13,092,051	11,934,299	12,972,191	13,715,783	13,856,629
Agriculture and Fishery	10,535,200	11,353,683	12,990,392	11,914,188	12,809,746	13,498,397	13,673,485
Forestry	32,806	31,314	101,659	20,111	162,445	217,386	183,144
Industry	3,630,745	3,406,274	3,544,835	3,373,506	3,818,778	4,307,579	4,460,227
Mining and Quarrying	90,880	95,878	103,357	101,402	247,439	245,459	198,704
Manufacturing	708,704	739,508	773,169	797,822	876,377	926,189	955,361
Construction	2,439,117	2,152,185	2,233,552	2,044,945	2,191,767	2,626,334	2,772,774
Electricity, Gas and Water	392,044	418,703	434,757	429,337	503,195	509,597	533,388
Services	7,359,699	7,820,235	8,126,015	8,424,153	8,732,993	9,130,331	9,367,212
Transportation, Communication and Storage	1,202,204	1,285,963	1,350,261	1,377,643	1,442,176	1,555,503	1,614,884
Trade	2,498,253	2,655,643	2,818,683	2,935,549	3,055,940	3,219,436	3,249,074
Finance	249,497	265,016	280,524	289,870	315,306	344,891	348
Occupied Dwellings and Real Estate	1,635,628	1,717,626	1,773,471	1,839,710	1,883,863	1,921,364	1,950,948
Private Services	299,012	308,361	321,199	332,628	343,795	350,358	358,426
Government Services	1,475,105	1,587,626	1,581,877	1,648,753	1,691,913	1,738,779	1,845,574

Source: National Statistics Coordination Board

The Agriculture and Fisheries Sub- sector comprises about 49.4% of the regional income in 2008 and with an average share of 50.1% during the period 2002-2008. About 99 % of the total GVA for Agriculture, Fisheries and Forestry (AFF) came from this subsector in during the period (2002-2008). Grains such as rice and corn comprises bulk of the production from this sector. The region found little contribution from forestry at an average share of 0.4% to the GRDP and at average of only 1% of the AFF sector during the period.

The Services Sector found its strength in Trade at an average share of 11.8% share of GRDP and growing by an average of 4.9% during the period. Specifically, the Trade sub-sector, which constituted about 35% of the total GVA from Services represents the contributions of firms involved in the wholesale and retail of consumer products. Other major sub-sectors of the service sector are Ownership of Dwellings and Real Estate at 22%, Government Services at 19.6% and Transportation, Communication & Storage at 16.6% percent.

Meanwhile, the Industry sector was heavily concentrated on Construction that represents an average 9.5% of the GRDP and about an average of 62.16% of the GVA from the Industry sector. This was followed by Manufacturing at an average share of 3.3% of the GRDP and average share

of 21.7% of the GVA from the Service sector. The regions manufacturing were in small-scale firms engaged in food processing and manufacturers of home and office furniture and decorations. Utilities under the Electricity, Gas and Water acquired 1.9% of the GRDP and about 12.12% of the GVA from the Industry sector. Little contribution was from Mining and Quarrying at 0.6% of the GRDP. Most of these activities are small-scale ones in support of Construction Industry in the region.

#### **Agricultural Production**

#### **Palay and Corn**

For the Agriculture Sector, the lead resources are still palay and corn. In 2008, palay production reached more than 2 million metric, an increase of 2.27 percent when compared to last year's palay production level. This made the region the second highest contributor (31%) in the Northern and Central Luzon Cluster, next to Central Luzon (41%). Likewise, the provinces of Isabela and Cagayan belonged to the Top 10 Palay Producing Provinces of the country with Isabela ranked first and Cagayan fifth.

Corn production, on the other hand, reached 1.47 Million Metric Tons in 2008, reflecting a 15.26 percent increase from the previous year's corn produce. With this volume of production, Region 2 contributed 56 percent of the total corn production in Northern and Central Luzon Cluster (NCL is next to Mindanao Cluster which contributes 60 percent of the total national corn production).

Table 6. Palay Production, Area Harvested and Yield by Farm Type, Region 2, 2004-2008

PARTICULARS	2004	2005	2006	2007	2008
Production (MT)	1,892,311	1,848,849	1,953,755	2,025,245	2,080,240
Irrigated	1,722,223	1,754,957	1,768,685	1,826,454	1,872,024
Rainfed	170,088	93,892	185,090	198,791	208,216
Area Harvested (Has.)	488,595	473,972	503,593	501,943	536,916
Irrigated	420,641	426,455	433,709	428,617	454,715
Rainfed	67,954	47,517	69,884	73,326	82,201
Yield/Hectare (MT/Has.)	3.87	3.90	3.36	4.03	3.87
Irrigated	4.09	4.12	4.08	4.26	4.12
Rainfed	2.50	1.98	2.65	2.71	2.53

Source: Bureau of Agricultural Statistics

Palay production grew by an average of 2.44% per year for the period 2004-2008. The main reason for such growth is the increase in the area harvested that grew by an average of 2.47% annually. This means that productivity has not sufficiently increased to match the growth in production and area harvested. In fact, palay productivity only grew by an average of less than 1% (0.71%) per year

Table 7. Corn Production, Area Harvested and Yield by Farm Type, Region 2, 2004-2008

PARTICULARS	2004	2005	2006	2007	2008
Production (MT)	1.198.394	769.506	1.219.382	1,281,309	1,476,879
White	77,529	54,460	61,249	64,618	64,368
Yellow	1,120,865	715,046	1,158,133	1,216,691	1,412,511
Area Harvested (Has.)	316,411	258,180	361,779	369,159	36,733
White	32,373	27,918	28,006	27,871	26,045
Yellow	284,038	230,262	333,773	341,288	341,288
Yield/Hectare (MT/Has.)	3.79	2.98	3.37	3.47	4.02
White	2.39	1.95	2.19	2.32	2.47
Yellow	3.95	3.11	3.47	3.56	4.14

Source: Bureau of Agricultural Statistics

For corn, production went up by an average of 10.75% per annum with the area harvested growing by just 5.82% yearly. There was a market increased in the area harvested for yellow corn that grew from just 284,038 hectares in 2004 to 341,288 hectares in 2008. With the shift from white to yellow corn, the area harvested for white corn decreased by an average of 5.12% per year from 32,373 in 2004 to 26,045 hectares. The shift from white to yellow corn increased productivity by an average of 2.65% per year.

#### **Fishery Production**

Regional fishery production grew by an average of 11.52% per year with fish production from aquaculture going up by an average of 38.08%. However, CY 2008 saw a 13% decline in commercial fishery production due to high cost of fuel and adverse weather condition. Due to these conditions, owners of the region's commercial fishing vessels have to resort to the use of smaller fishing boats that could only operate in municipal waters. The shift from commercial to municipal fishing saw an increase in the municipal fish production by 10.42% from its 2007 level.

Table 8. Region 2 Fishery Production, by Sector, CY 2004-2008

SECTOR	2004	2005	2006	2007	2008
Commercial	15.916.43	15.913.00	18.983.62	18.711.28	16.350.48
Municipal	21,059.80	22,028.92	23,823.87	27,280.16	30,121.80
Aquaculture/Marine	5,408.55	8,825.20	11,626.69	13,187.26	18,987.24
Total	42,384.78	46,767.12	54,434.18	59,178.70	65,459.52

Source: Bureau of Fisheries and Aquatic Resources, Region 2

#### TRANSPORTATION, ACCESS AND CIRCULATION

The region could be accessed by land, sea and air. Its location at the northeastern tip of the country makes it accessible by sea with the major Asian markets such as China, Hong Kong, Taiwan and Japan. While, being a geographically landlocked region, the main mode of transportation is by land.

The region's coastal municipalities, particularly Palanan and Divilican in the province of Isabela, could hardly be accessed due to the absence of roads and ports that could have connected these municipalities to the mainland.

#### **Land Transportation**

The region's main exit and entry point from the south is the Maharlika Highway, while from the North is the Laoag-Allacapan Road. The mountainous section of these trunk-line routes are highly vulnerable to slope erosion or landslides, thus, are prone to traffic closure.

The access between Regions 02 and CAR and the whole of northern Luzon is improved through the opening of Aritao-Kayapa Section of the Baguio-Aritao Road and the Maddela-Aurora Road. Likewise, circulation within the region was improved since the opening of major intra-regional roads namely Capissayan-San Carlos Road in the province of Cagayan and Solano-Quezon Road in Nueva Vizcaya. Other intra-regional roads were improved to include Santiago-Enrile Road (west of Maharlika Highway), Laoag-Allacapan Road (or Manila North Road along northwest Cagayan), and Dugo-San Vicente Road (which links the Cagayan Special Economic Zone at Sta. Ana, Cagayan to the region's northern trunk-line route). The region remains relatively deficient of safe and reliable access roads that would link isolated and/or remote communities to the mainstream of economic activities. This is shown in the region's road density of 0.48 km./ sq. km., which is lower than the national average road density of 0.67 km./sq. km in CY 2001.

As of the end of 2006, a total of 880,901 km. or 50% of 1,703,802 km. total length of all national roads within the region was concreted. The remaining portions are still made of gravel (33%), asphalt (15%) and earth (1%). Likewise, fifteen (15) out of 19 foreign-funded bridges that connect national roads within the region were completed in 2006. This has improved the mobility of goods and services of the region with the Ilocos Region, NCR and CAR.

In terms of registered motor vehicles in the region, a total of 210,290 were registered at the end of CY 2008. It is still dominated by motorcycle and tricycle as it contributed 62.68 percent to the total registration. This type of vehicle is most often used within the commercial and urban areas of the region. The increasing trend of trucks and trailers registration also reflected positive economic activities particularly along construction and agriculture.

#### Sea Transportation

The region has ten (10) operational public ports and three (3) private ports. The public ports are used for commercial and fishing docks, while private ports are used for mining and feeder for petroleum products.

Rehabilitation of other ports include the development of Port Irene into international port to accommodate a 700 Twenty Equivalent Units (TEU) capacity container-vessel; the establishment of the North Luzon Roll on Roll off (RORO) Transport System Development that would connect the provinces of Batanes, Cagayan and Isabela with Aurora of Region 4; the completion of the marginal wharf of the Aparri Port; and the completion of the Valanga Port in Itbayat, Batanes. Two other ports located in Sabtang and Ivana are for implementation under the Social Reform Related Feeder Ports Development Project (SRRFPDP).

The Aparri Port and Sta. Ana Port in northern and northeastern Cagayan, respectively, are the existing national ports in the region that are fully operational, while municipal ports that are operational are located at the coastal towns of Aparri, Cagayan and Palanan, Isabela.

The group of islands in Batanes, on the other hand, has limited sea transport facilities. The Philippine Navy's Landing Ship Tank (LST) calls on the island-province barely four times a year. Aside from this courtesy from the Philippine Navy, two maritime vessels owned by the local cooperative in the province are providing transportation for the Ivatans. The unpredictable and

usually adverse weather condition in the Babuyan Channel and the absence of more efficient and reliable municipal ports and docking areas of the existing local ports render sea travel difficult and risky.

Likewise, the island-municipality of Calayan depends on motorized bancas as transport service to and from the coastal municipalities of Claveria and Aparri in Cagayan.

#### **Air Transportation**

Region 02 has four (4) public airports in operation, namely, Tuguegarao, Cauayan, Basco, and Bagabag Airports. The Tuguegarao Airport was classified as secondary, which services the region's institutional centers, while the three other airports were classified as tertiary, which caters to air transport needs of the localities. The Cauayan airport was upgraded in 2004 as it braced modern navigational facilities amounting to 58 Million Pesos.

A privately owned airstrip that was constructed along the eastern coast of Palanan, Isabela by the ACME logging concessionaire, meanwhile, operates commercially as it caters private aircrafts.

#### INCOME, EMPLOYMENT, SERVICE ACCESS, AND POVERTY

#### **Employment**

The region's employment picture from 2004 to 2008 is quite good with employment rate peaking at 96.9% in 2007. However, from 2007 to 2008, the number of full-time workers (those who worked for 40 hours or more) went by 1.2%. Consequently, those who worked for less than 40 hours increased in number from 134,000 in July 2007 to 176,000 in July 2008. Its proportion to total employment also went up by 1.3%.

Table 9. Total Labor Force and Employment, Region 2

January Labor Force Survey/Year	Labor Force	Employed	Employment Rate
2004	1,360	1,281	94.1
2005	1,343	1,251	93.1
2006	1,335	1,292	96.8
2007	1,397	1,353	96.9
2008	2,092	2,019	96.5

Source: National Statistics Office

Likewise, the region's underemployment rate went up from 3.5% to 4.2% for the same reference period.

#### Education

Providing quality and accessible education to the less privileged is critical if the region were to succeed in harnessing its human resource base. Achieving this objective requires effective measures to close program/project implementation gaps at the grassroots level. This portion presents a comparative analysis of the region's performance for 8 years (year 2000 to 2008) with year 2000 as base year, using major indicators only.

The region faces the need to improve the participation of school age children in the elementary. In the secondary level, participation rate remained low with 53.50% in year 2000, 49.30% in year 2004 and 45.53% in year 2008.

Participation Rate (PR) steadily declined over the last 8 years (2000 to 2008). In the elementary level, the region's performance steadily declined from 94.10% in year 2000 to 71.69% in year 2008. The same condition applies to the secondary level where the PR remained low from 53.50% in year 2000 to 45.53% PR in year 2008. The performances in the elementary and secondary public schools were opposite the Plan targets, which were to increase participation rates in basic education in the region from the previous years. The low PR in both levels is attributable to the inability of poor families in remote areas to send their children to school due to economic difficulties.

In terms of Cohort Survival Rate (CSR), the region's elementary education sector exhibited fluctuating performance rates from 72.22% in year 2000 to 70.64% in year 2008, with slight improvements within such period. In the secondary level, the 66.12% CSR posted in year 2008 represents a decrease from year 2000's accomplishment of 74.95%, although a minimal increase was noted in year 2004. The low CSR in both levels is closely tied to the non-prioritization accorded by poor families for education, where the children are forced to stop schooling as they are tapped to work in the farm during planting and harvest seasons.

Table 10. Education Performance Indicators, Region 2, SY 2000-2001 to 2007-2008

School Year	Participa	ation Rate	Cohort Survival Rate		
School real	Elementary	Secondary	Elementary	Secondary	
2000-2001	94.10	53.50	72.22	74.95	
2001-2002	93.66	54.77	69.24	77.09	
2002-2003	91.70	55.96	70.32	74.81	
2003-2004	83.33	46.63	77.66	62.58	
2004-2005	82.26	49.30	70.80	64.96	
2005-2006	79.62	45.46	67.77	60.29	
2006-2007	73.98	46.25	70.88	70.64	
2007-2008	71.69	45.53	65.30	66.12	

Source: Department of Education, Regional Office 2

#### Health

The sector showed mixed performances as some indicators improved while the others went down. Crude Birth Rate, Infant and Child Mortality Rates went down from their 2007 level. While Crude Death and Maternal Mortality Rates increased.

Over-all, maternal and child health indicators improved from 2004 to 2008 with infant, child and maternal mortality rates going down by a yearly average of 5%, 33% and 0.55%, respectively. The reduction in the mortality rates can be attributed to stronger advocacy and implementation of health programs such as the Expanded Program on Immunization, Pre-Natal and Postpartum Care, coupled with the region's nutrition program. The vigorous implementation of the region's nutrition program saw the reduction of BNVL by an average of 14% yearly and those under BNL by an average of 12% annually.

Table 11. Health Indicators, Region 2, 2004-2008

INDICATORS	2004	2005	2006	2007	2008
Crude Birth Rate	20.48	20.61	20.38	22.05	21.68
Crude Death Rate	3.87	3.99	4.01	4.13	4.33
Infant Mortality Rate	6.80	5.98	6.46	6.33	5.48
Child Mortality Rate	132.00	128.90	133.00	8.20	5.15
Maternal Mortality Rate	0.60	0.52	0.61	0.39	0.51
Contraceptive Prevalence Rate	68.23	61.98	62.00	61.89	58.34
Nutritional Status of Pre-schoolers					
Below Normal (very low) BNVL%	1.38	1.12	0.86	0.90	0.72
Below Normal (low) BNL%	12.67	10.01	9.14	7.72	7.38

Source: Department of Health, Regional Office 2

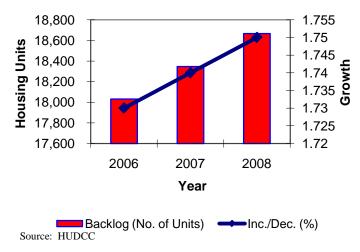
However, crude birth and death rates increased by an annual average of 2% and 3%, respectively. The increase in crude birth rates can be attributed to low acceptance of Natural Family Planning methods by the region's couples and the decreasing use of contraceptives that fell by an average of 4% yearly. Lifestyle diseases have been on the rise and are the main causes of deaths in the region. Pneumonia and other respiratory diseases were one of major causes of death in the region along with heart diseases.

#### Housing

The existence of more than one household in one housing units can be attributed to the inability of households to put up their own housing units due to rising cost of construction materials, poverty, Filipino culture per se and their tendency to cluster in one housing unit due to their being closely knit.

The housing need in the region is perennially increasing. For 2008 the housing need stood at 18,667 units representing a 1.75% increase over the 2007 level of 18, 346. The CY

Figure 8. Housing Backlog, Region 2



2008 figure is likewise higher than those registered in the two previous years (Figure 8), despite the decrease in interest rates in housing and settlement program. Several factors have affected this annual trend, which include equity requirements, population growth, doubled-up housing and dilapidated housing units. In an effort to address the issue, the government has continued to provide viable schemes to housing loan borrowers through the following programs: Individual/Retail Loans Program (Home Development Mutual Fund), Cooperative Housing and Rural Bliss Projects (Home Guaranty Corporation) and Sites and Services Development Project (National Housing Authority). However, these programs seem not effective enough to address the perennial housing backlog.

#### Access to Electricity and Safe Water

About 84 percent (532,636) of the total number of households (637,056) in the region have access to safe water. On Access to Electricity, the total number of household energized in the region increased from 78 percent in 2007 to 81 percent in 2008. Ninety-eight (98%) of the 660,700 barangays are now energized.

Table 12. Energization by Electric Cooperatives, Region 2, as of CY 2008

COOPERATIVE	Munic	 Municipality		ngay	Connections	
	Energized	% Served	Energized	% Served	Connected	% Served
Region 2	96	100	2,282	98.75%	530,141	81
BATANELCO	6	100	29	100	4,466	91
CAGELCO I	12	100	368	98	99,822	82
CAGELCO II	21	100	483	95	85,508	76
ISELCO I	15	100	484	100	145,833	95
ISELCO II	21	100	516	95	102,081	73
NUVELCO	15	100	252	92	60,360	73
QUIRELCO	6	100	150	100	32,071	82

Source: National Electrification Administration

#### **Poverty**

Region 2 had the least poverty among the regions in 2006 ranking 14<sup>th</sup> among out the 17 regions in terms of poverty incidence (Table 13). However, poverty in the region worsened from a poverty incidence rate of 19.95% in 2003 to 20.25% in 2006. Poverty in Cagayan grew by 2.8 percentage point from 16.5% in 2003 to 19.3 in 2006. However, the incidence of poverty in the province of Quirino decreased by 8.5 percentage points. Along with Batanes, Quirino belong to the Top 10 Least Poor Provinces of the country for 2006.

## Development Opportunities

Table 13. Poverty Incidence by Region, 2006

2000							
Region	Rank	Poverty Incidence Rate					
A DD 40.4	1	55.3					
ARMM	_						
Caraga	2	45.5					
MIMAROPA	3	43.7					
Bicol Region	4	41.8					
Eastern Visayas	5	40.7					
Zamboanga Peninsula	6	40.2					
Northern Mindanao	7	36.1					
SOCCSKSARGEN	8	33.8					
Western Visayas	9	31.1					
Davao Region	10	30.6					
Central Visayas	11	30.3					
Cordillera Administrative Region	12	28.8					
Ilocos Region	13	26.2					
Cagayan Valley	14	20.5					
Central Luzon	15	16.8					
CALABARZON	16	16.7					
National Capital Region	17	7.1					

Source: National Statistics Coordination Board

The region's natural and physical resource endowments are the major elements that define its development opportunities. These are further primed by the 2010-2020 economic gains where the region has been propelled to become the nation's new food basket and main producer of rice and corn, aligned to its role in the Agri-Business Quadrangle (NLAQ).

Furthermore, the productive activities in the Cagayan Special Economic Zone and Free Port have given the region a significant agri-based industrial, commercial and tourism potential.

CSEZFP as transshipment centers likewise ensures the realization of the envisioned international economic integration of the region. The development of Port Irene into an international port is the primary anchor for the region's infused economic activity. CEZA's operated gaming industry has spurred increased foreign tourist presence and the opening of international flights to and from China present more productive potentials for the future.

In addition, the region has high marine and fresh water fishery development particularly for capture fishery and aquaculture. Contributing to the freshwater fishery potential is the 520 km Cagayan River and its 25 major tributaries and 27,300 sq. km. of drainage area. In addition is the 22, 724 has, of wetlands. On the other hand, marine fishery development includes the 890 km. coastline which is rich in various species of marine life. Thus, deep sea fishing development can be explored and promoted in the Pacific Ocean and the Babuyan/Balintang Channel where Taiwanese fishermen are often caught poaching. The forestry potential of the region is also an opportunity that can be taken advantage of. The region has a total of 721,023 has. of production forest of which considerable portions are used as plantation forest (50,976 has.), range and grazing land (346,382) and farm forest (35,864). Such areas can be planted with prime and fast growing species of wood to support the timber-based industries of the region. These are the major opportunities that the region can capitalize on to improve agri-business. The region's agriindustry partnership arrangement in the NLAQ poses more positive changing opportunities. Given its role as agri-business center, the region is placed in equal comparative advantage with the other North Luzon regions, aside from enabling increased agriculture production and productivity in unison with its partners. Also, the successful start-up of the Tuguegarao City Dairy Industry Development Plan is seen to pump prime the agri-business activities of the region, aside from the sustained performance of the agriculture sector, given its wide agricultural expansion area (573,066 has.), particularly for grains, poultry and livestock, and high value commercial crops.

#### **Desired Scenario**

#### REGIONAL VISION AND GOAL

To provide direction to the preparation of the region's long-term plan, a vision has been crafted that expresses the aspirations of the region's people until 2020. The Cagayan Valley Region is envisioned to be "The Philippines' Prime Cereal Producer and Northern Gateway".

Our goal is to enhance well-being in the Cagayan Valley as its transforms the economy in an equitable and sustainable manner.

#### **DEVELOPMENT RESULTS**

#### **Less Poverty**

The region's prosperity will benefit its citizenry with better income, greater access to resources and the region's wealth, among others. Greater prosperity has equated to better education, health and other social services. In turn, her healthy and well-educated citizens serve as the productive manpower core of the region's industries and businesses.

#### Safe and Secure Communities

The region's population live in an atmosphere conducive to business and raising a family where harmony between development and environment exist.

## **Strategic Interventions**

To achieve the region's desired scenario, six strategic pillar or interventions have been designed and these are:

#### Pillar 1: Diverse and Balanced Economy

- Diversify into new economic growth sectors such as energy, environmental services, health and wellness, educational services, financial services and creative industries;
- Promote investments in job-creating activities like, agri-business, entrepreneurship and SME development, renewable energy, mass transportation, recycling and reuse, forestry and fisheries among others.
- Improve productivity in industries and services, most of which are in the informal
  economy. These have to be strengthened and made competitive to help hasten the
  region's progress.
- Promote joint venture and strategic alliances of SMEs with multi-national corporations and foreign companies. Locally generated investments would not be enough to finance the undertakings that the region needs to advance to 2020. The region would require outside investors to finance the various economic enterprises. The CSEZFP together with the other special economic zones and industrial estates would play a key role in generating investments for the region along with her local government units.
- Assist domestic industries to enhance competitiveness through the development of packages of technology, product innovation and packaging, training, ISO certification, patents, among others.
- Provide the right type of incentives and support through the investments priority plan, the
  National Economic Research and Business Assistance Center and local government unit
  incentives. Likewise, the provision of efficient and business-friendly institutions and a
  positive business climate would encourage the expansion of existing industries and
  businesses, and the creation of new ones.

#### Pillar 2: Productive and Viable Farmlands

- Provide more small irrigation to increase the area of irrigated farmlands;
- Accelerate delivery of post-harvest technologies to reduce losses;
- Accelerate introduction and adoption of higher yielding rice varieties;
- Increase public investment in agriculture support infrastructure such as farm-to-market roads, irrigation systems, market systems to sustain productivity growth in rice, among others;
- Strengthen agrarian reform support to farmers;
- Promote farm modernization and mechanization
- Greater access to market and credit support; and
- Support agriculture-based industrialization such as food processing.

#### Pillar 3: Energized Aquaculture and Capture Fishery

The development of her fishery sector would hinge on the following thrusts:

- Allow and promote sustainable aquaculture activities;
- Utilize the RORO and put up more fish ports to take advantage of the Philippines' EEZ in the Pacific which is the migratory path of skipjacks, blue and yellow fin tuna, and frigate mackerels. Their migration takes them into the area from June to the colder months of the year;
- Development of deep-sea commercial fishery; and
- Establishment of fishing ports with piers, refrigeration facilities, ice and processing plants along the Pacific Coast to enable fishermen to unload their catch and process them.

#### Pillar 4: Growth Nexus

- Optimize CSEZFP's Economic Activities. The region should capitalize on the developments in the CSEZFP and other areas with established development infrastructure, and further build enabling infrastructure;
- Promote key economic initiative that will become focal points for growth within the region. New economic initiatives as well as those enhancing existing initiatives including agency-based facilities that serve as common facilities shall be also promoted.
- Manage rural growth especially in the peripheral areas which are largely agricultural. The development and management of these areas should be aligned with the modernization of the region's agriculture sector.
- Adopt the Industry Cluster Approach wherein in companies and institutions are linked with the commonalities and complementariness of end products and services and with the suppliers, financial and professional services and other related activities, specialized infrastructure and institutions providing technical support.
- Ensure competitive tourism. The region should attract tourist segments such as, sightseers and shoppers, backpackers, beach lovers, domestic ecotourists, recreation seekers, balikbayan guests, among others to visit the region. For foreign tourist, the primary focus should be China, South Korea and Japan which are the new major tourists in Southeast Asia. Along with promoting the region as a tourism destination, there is a need to:
  - o Build or improve major infrastructure to link existing and future tourism sites
  - o Increase accessibility, and improve existing product offerings particularly on the region's Pacific beaches
  - o Together with the region's local government units, build more attractions and promote them.
- Strengthening International Linkages. Industries need to strengthen their position in order to obtain market access, reap the benefits of economies of scale and benefit for technology and innovations.
- Plan and develop the region as one integrated global node consisting of Taiwan and China through the NLAQ and CEZA. This is important in strengthening international linkages as well as attaining a critical mass for the region's tourism, agriculture and fishery.

#### Pillar 5: Wider Access to Quality Basic Services

#### a. Education

- 1) Socialized and subsidized tuition fees
- 2) Free college education is State Universities and Colleges (SUCs)
- 3) Government subsidy for private schools especially for priority courses
- 4) Full scholarships for students and teachers in tertiary education
- 5) Enhanced alternative learning systems for out-of-school youth and adults
- 6) Overflows from SUCs be distributed to private schools and given subsidy by the government.

#### b. Health and Nutrition

- 1) Socialized hospitalization scheme
- 2) Free hospitalization for the poor
- 3) Affordable and Quality Medicines
- 4) Botika ng Barangay in all barangays of the region
- 5) Nutrition programs for all barangays

#### c. Housing

• Low-cost housing development



National Economic and Development Authority Regional Office 2 Regional Government Center, Carig Sur, Tuguegarao City