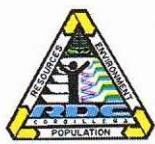




**Cordillera Administrative Region  
Regional Development Plan  
2017-2022**







# **Cordillera Regional Development Plan 2017-2022**



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# FOREWORD

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

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

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

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

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

A handwritten signature in black ink, appearing to read 'Rodrigo Roa Duterte'.

**RODRIGO ROA DUTERTE**

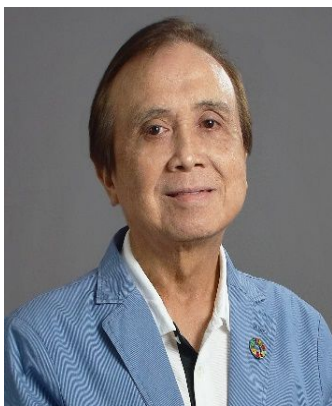
President

Republic of the Philippines

MANILA

May 2017

# MESSAGE



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

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

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



**ERNESTO M. PERNIA**

Secretary of Socioeconomic Planning

# MESSAGE

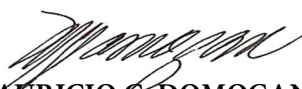


The Regional Development Council welcomes the completion of the Cordillera Regional Development Plan 2017-2022 that fully supports the nation's development agenda. Anchored on a long-term vision for the country or the *AmBisyon Natin 2040*, this innovation in the country's planning process will hopefully set a clear and consistent direction for the country's, and the region's development in the next six years and beyond.

The Cordillera Region fully supports President Rodrigo Roa Duterte's development directions for the country as contained in his 0+10 Point Socioeconomic Agenda. We share the administration's advocacy in bringing about real change to Philippine society guided by its major strategies of *Malasakit*, *Pagbabago* and *Patuloy na Pag-unlad*. In this, we will align regional priorities to those of the national to synchronize actions and efforts towards nation-building and make efficient use of government resources. Notwithstanding, we will also continue to assert our role as a special region given our distinct history, culture and tradition and along with it our unique and peculiar regional issues, including our clamor for autonomy that will surely help address these issues. It may yet be our biggest chance that under this administration, special concerns affecting our region and all Cordillerans are finally heard and addressed.

I would like to enjoin all our development partners to help realize this Plan's implementation by using it as a guide in the formulation of policies, programs and projects aligned to the region's development priorities. Let us continue to work together to move towards our aspiration of a progressive and prosperous Cordillera Region and truly make a difference in the life of every Cordilleran.

---



**MAURICIO G. DOMOGAN**  
RDC Chair 2017-2019  
(Mayor, Baguio City)

# PREFACE



This Regional Development Plan (RDP) 2017-2022 of the Cordillera Administrative Region highlights and specifies our regional development goals and objectives as well as the sectoral and spatial strategies on how to attain these.

Aligned with the Philippine Development Plan (PDP) 2017-2022, the RDP is contextualized with the Philippine long-term vision or the *Ambisyon Natin 2040*, the Sustainable Development Goals 2030) and President Duterte's 0+10 Point Socioeconomic Agenda. The RDP 2017-2022 is therefore anchored on three pillars – *Malasakit*, *Pagbabago*, and *Patuloy na Pagunlad* as it aims to enhance the social fabric, reduce inequality, and increase potential growth.

In our desire to truly capture relevant issues and concerns in the different provinces and communities in the region as well as identify strategic and appropriate interventions to address these, the formulation of the RDP included series of dialogues and consultations with different stakeholders from the national to the local level both from the public and the private sphere. Consultations were conducted in all the provinces in June to July 2016. A Regional Launching of the *Ambisyon Natin 2040* and a Regional Consultation on the Draft PDP 2017-2022 were conducted in November 2016 while a Regional Consultation on the Draft RDP 2017-2022 was also done in January 2017. An inter-regional RDP Conference also reviewed the consistency of all RDPs with the PDP 2017-2022.

Each chapter was also written in close coordination with government agencies and concerned organizations. In fact, all chapters were subjected for review and endorsement by the Committees of the Regional Development Council (RDC) from February to March 2017. It was adopted by the RDC Executive Committee in March 2017 and the RDC EnBanc in April 2017.

We hope then that the Cordillera RDP 2017-2022 will be cascaded in the local plans and will unify all our efforts for more impact in achieving a “*matatag, maginhawa at panatag na buhay*” for the Cordillerans and for all Filipinos.

  
**MILAGROS A. RIMANDO**  
Regional Director



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PART I

# INTRODUCTION





01

The Long View



# The Long View

## The Philippine Long-Term Vision (LTV)

Inclusive growth is seen as a long-term process that cannot be fully achieved in six years or in a single term of an administration. And while the current administration will continue aiming for inclusive growth – growth that creates jobs and reduces poverty – it realizes that its efforts will need to be sustained in the next three succeeding administrations.

Executive Order (EO) No. 5, series of 2016 adopted *AmBisyon Natin 2040* as the long-term vision for the country. Section 3 states that the four medium-term Philippine Development Plans (PDPs) to be crafted and implemented until 2040 shall be anchored on the country's Long Term Vision:

*“By 2040, the Philippines shall be a prosperous, predominantly middle-class society where no one is poor; our peoples shall live long and healthy lives, be smart and innovative, and shall live in a high-trust society.”*

*AmBisyon Natin 2040* also captured the Filipinos' Vision for Self as follows:

*“In 2040, we will all enjoy a stable and comfortable lifestyle, secure in the knowledge that we have enough for our daily needs and unexpected expenses, that we can plan and prepare for our own and our children's future. Our family lives together in a place of our own, and we have the freedom to go where we desire, protected and enabled by a clean, efficient and fair government.”*

The key principle of *AmBisyon Natin 2040* is participatory planning – that is, involving the citizenry in defining the country's development vision such that citizens feel they have a stake in the long-term effort towards inclusive growth. This is to encourage people towards continuously supporting the pursuit of the country's long-term vision by realizing that they are at the center of development efforts and that they will benefit from such efforts.

## The Philippine Development Plan 2017-2022 Framework

The PDP 2017-2022 will focus on translating the 0+10 Point Socioeconomic Agenda of the Duterte administration (see Box 1) into strategies, policies, programs and activities. By the end of 2022, more Filipinos will be closer to achieving their

*AmBisyon* to have a “*matatag, maginhawa at panatag na buhay*.” As the first in a series of four PDPs up to 2040, the PDP 2017-2022 along with the regional development plans will lay down a solid foundation for more inclusive growth

***Box 1: 0+10 Point Socioeconomic Agenda of the Duterte Administration***

**0+10 Point Socioeconomic Agenda of the Duterte Administration**

0. Law and order: stamp out criminality particularly illegal drugs, kidnapping and other heinous crimes; instilling discipline for everyone to adhere to the rule of law, and strengthening the country's justice system.
1. Continue and improve current macroeconomic policies: strengthen tax collection and administration by reducing tax evasion, corruption and smuggling in revenue collection agencies (i.e., Bureau of Internal Revenue (BIR) and Bureau of Customs (BOC)).
2. Reform the tax system to make it more progressive, equitable and globally competitive – including indexation to inflation of tax brackets for personal and corporate income taxes.
3. Accelerate infrastructure spending with at least 5 percent of GDP spending target; address bottlenecks in the Public-Private Partnership (PPP) program.
4. Strongly attract foreign besides local direct investments by: (a) easing constitutional economic restrictions and other Philippine laws; (b) enhance ease of doing business (cut red tape); and (c) enforce law and order.
5. Pursue agricultural development focusing on farm-level productivity through support services to small farmers, improving market access and fostering agricultural value chain through partnerships with agribusiness firms. This is part of the broader rural and regional development strategy that includes promoting tourism.
6. Address bottlenecks in land reform and management systems, including security of land tenure to make projects bankable thereby attracting investments in rural areas.
7. Strengthen basic education focusing on skills in communication, math and logical thinking; provide scholarships for tertiary education, and address skills-jobs mismatches.
8. Promote science and technology (S&T) and creative arts (CA) to enhance innovative and creative capacities needed for self-sustaining inclusive development and participation in the global knowledge economy.
9. Expand and improve the Conditional Cash Transfer (CCT), indexing grants to inflation while tightening its administration.
10. Step-up implementation of the Responsible Parenthood Reproductive Health (RPRH) Law to enable couples, especially the poor, to have informed choice on the number and spacing of children they can properly care and provide for.



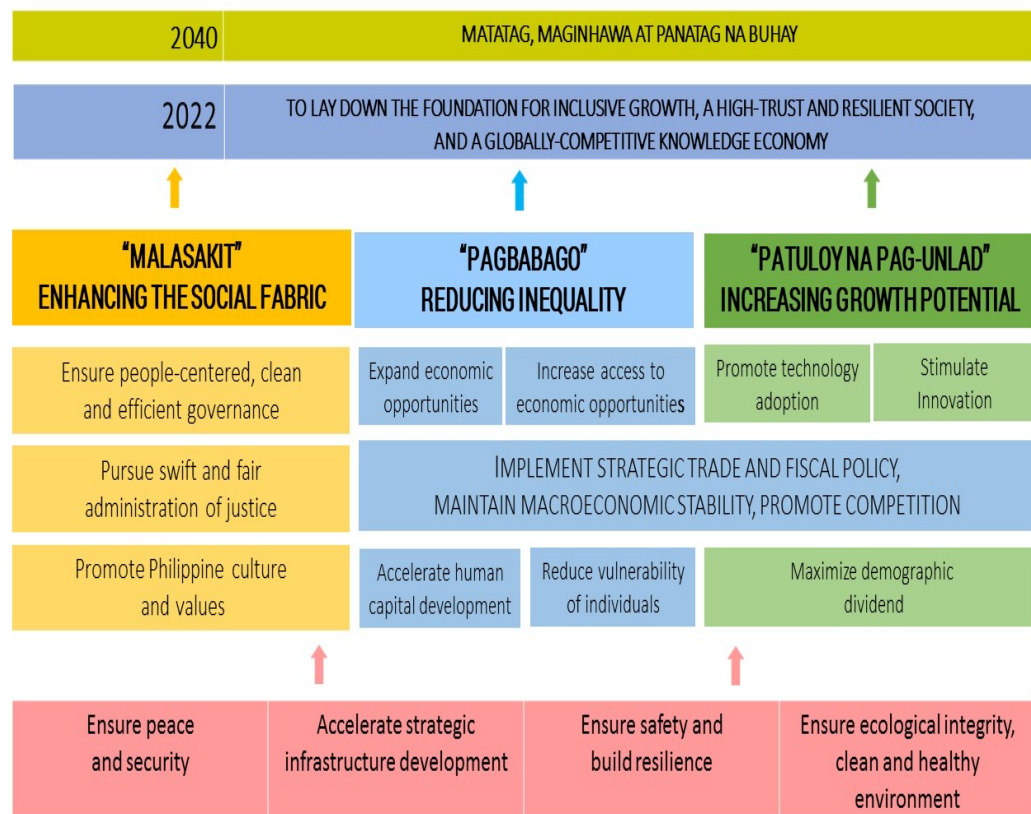
a high-trust and resilient society and a globally-competitive knowledge economy.

more resilient; and (6) Filipinos will have greater drive for innovation.

The targets for the PDP 2017-2022 are the following: (1) the Philippines will be an upper middle income country by 2022; (2) growth will be more inclusive as manifested by a lower poverty incidence in the rural areas, from 30 percent in 2015 to 20 percent in 2022; (3) the unemployment rate will decline from the current 5.5 percent to 3-5 percent in 2022; (4) there will be greater trust in government and in society; (5) individuals and societies will be

The strategies to achieve the targets fall under the three major pillars of “*Malasakit*” (Enhancing the social fabric), “*Pagbabago*” (Reducing inequality), and “*Patuloy na pag-unlad*” (Increasing growth potential). There are cross-cutting strategies as well, to support the other interventions and to provide a solid bedrock for all strategies to work.

**Figure 1.1 Philippine Development Plan 2017-2022 Framework**



Strategies under “*Malasakit*” include ensuring people-centered, clean and efficient governance; pursuing swift and fair administration of justice; and promoting Philippine culture and awareness.

Strategies under “*Pagbabago*” include expanding and increasing access to economic opportunities for growth of output and income, accelerating human capital development and reducing vulnerability of individuals and increasing resiliency of communities.

Strategies under “*Patuloy na pag-unlad*” include promoting technology adoption and stimulating innovation, and accelerating the demographic transition to reap the benefits of the demographic dividend.

Cross-cutting strategies include maintaining an enabling and supportive economic environment and enhancing market competition. Foundations for sustainable development include ensuring national security against internal and external threats, accelerating strategic infrastructure development, restoring public order and safety, and ensuring ecological integrity and a clean and healthy environment.

# 02 Global and Regional Trends and Prospects



## Chapter 2

# Global and Regional Trends and Prospects

The implementation of the PDP 2017-2022, along with the regional development plans, will need to consider various developments in the local and international scene to integrate policies and strategies to respond to these developments.

Executive Order No. 5, series of 2016 cites that “Asia is projected to be the center of the global economy by 2050, and the Philippines needs a bold vision and effective development planning, one that adopts a forward-looking approach that goes beyond a single political administration, to be at par with the region’s economic growth and development.” The 21<sup>st</sup> century is seen as the Asian Century<sup>1/</sup> and realizing this vision for Asia 2050 will require the Philippines doing more to catch up or otherwise be left behind by its regional neighbors. In this light, the PDP 2017-2022 aims to lay the groundwork for government policies that will hopefully be consistently implemented in the next three succeeding Plan periods to achieve the goal of the Philippines becoming a middle-income country by 2040 along with its Asian neighbors.

Regional economic integration through the establishment of the ASEAN (Association of Southeast Asian Nations) Economic Community or AEC presents opportunities not only for the country’s economic but also human resources to be recognized in the ASEAN market. The challenge is in developing and promoting our agricultural products, micro, small and medium enterprises, and professionals

among others, towards becoming more globally competitive.

Member states of the United Nations adopted on 25 September 2015 the Sustainable Development Agenda (SDA) 2030 featuring 17 new sustainable development goals (SDGs) that aim to end poverty, promote prosperity and people’s well-being while protecting the environment by 2030.<sup>2/</sup> The new sustainable development agenda builds upon the Millenium Development Goals (MDG) 2000-2015 but also goes much further by addressing the root causes of poverty and recognizing the universal need for development that works for all people (Figure 2.1).

The 2030 SDA continues to highlight poverty eradication as the overarching goal and has at its core the integration of the economic, social and environmental dimensions of sustainable development. The major challenge is localizing the SDA with its 17 sustainable development goals and 169 targets that will require financing, technology and capacity development, intensified international cooperation and multi-stakeholder partnerships, increased capacity-building and better data and statistics to measure sustainable development.

Figure 2.1 From MDGs to SDGs



The age distribution of the country is seen to be changing resulting from the transition from high fertility and high mortality to lower fertility and lower mortality. This change in the age structure – or the demographic transition - presents opportunities that can in the medium and long-term sustain if not fuel further growth for the economy with the right policies in place. The challenge of building a consensus in pursuing a population management policy that is widely acceptable to all sectors is important. Such policy must make clear the benefits in taking advantage of the opportunities presented by the changing age structure now and laying out the disadvantages in further postponing the demographic transition.

The Cordillera Region will also continue to pursue regional autonomy as a strategy to enhance Cordillera identity, to effect responsive policies for the region and to attain progress for all Cordillerans. With the diversity of indigenous tribal groups in the Cordillera, many observers see a considerable challenge to unifying the various tribal groups in the region towards an appropriate Cordillera development agenda. A unifying common element may yet be the agreement towards protecting the region's environment and natural resources not only for national but more so for the socioeconomic development of IPs and indigenous cultural communities (ICCs). CAR intends to

take the lead in advocating and promoting the important role of IPs and ICCs in the task of nation building, and in promoting environmental protection and cultural diversity as sound development strategies towards inclusive growth.

The gains in public financial management (PFM) reforms at the national and local levels will continue to be pursued. Efforts to link the planning processes from planning to investment programming to budgeting and monitoring and evaluation will continually be reviewed, monitored and evaluated to achieve the desired results and outcomes of development interventions implemented by government at national and local levels.

Likewise, efforts towards mainstreaming disaster risk reduction/climate change adaptation (DRR/CCA) in local plans must continue especially for CAR that is identified as disaster-prone specifically to rain-induced landslides, flooding and earthquakes. The convergence and partnership of regional inter-agency task forces created to oversee PFM reforms and DRR/CCA integration in local plans are expected to continue with appropriate directives and support from national government.

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1/*Asian Development Bank, Asia 2050: Realizing the Asian Century (Executive Summary)*, August 2011.

2/ See [https://sustainabledevelopment.un.org/topics/sustainable\\_developmentgoals](https://sustainabledevelopment.un.org/topics/sustainable_developmentgoals) for more details.





03

Overlay of Economic  
Growth, Demographic  
Trends, and Physical  
Characteristics



## Chapter 3

# Overlay of Economic Growth, Demographic Trends and Physical Characteristics

The Cordillera Regional Development Plan (RDP) 2017-2022, which takes off from the current Administration's 0+10 Point Socioeconomic Agenda, pursues the realization of inclusive development, anchored on the Long Term Vision or *AmBisyon Natin 2040*: "*matatag, maginhawa at panatag na buhay*." It defines the desired spatial distribution of human activity in the region considering economic, social, institutional and environmental conditions.

## CAR Economic and Demographic Trends

CAR's gross regional domestic product (GRDP) reached Php133.485 billion in 2015 from Php120.136 billion in 2010, or an average growth of 2.1 percent per year. Services is the fastest growing sector averaging 4.1 percent growth between 2010 and 2015 followed by industry at 1.2 percent per year. Agricultural gross output has been contracting by an average negative 0.6 per year and has been contributing the least to GRDP.

CAR's economy is one among three regions in the country that is considered predominantly industrial (apart from Central Luzon Region and CALABARZON). Industry has contributed an average 50 percent to CAR's GRDP even as its share is on the decline (from 52.8% in 2010 to 50.5% in 2015). In 2015, CAR contributed an average 1.8 percent to the country's Gross Domestic Product (GDP) (Table 3.1). CAR's economy has not kept pace with and has always

performed below growth in the country's GDP which was at 3.7 percent in 2015 compared to the national economy's 5.9 percent.

The high employment rate in the region was sustained at an average 95 percent between 2010 and 2015 (Table 3.2). As such, the unemployment rate was at average 5 percent with the lowest rates recorded in 2013 (4.6%) and in 2015 (4.8%). But the challenge of reducing the underemployment rate continues which was at an average 15.7 percent, with the highest rate recorded in 2015 at 20.8 percent. The high underemployment rate reflects the poor quality of jobs being generated as the underemployed include all employed persons who express the desire to have additional hours of work in their present job or an additional job, or to have a new job with longer working hours.

**Table 3.1 Gross Domestic Product and Gross Regional Domestic Product by Industrial Origin (In billion pesos at constant 2000 prices), Philippines and CAR: 2015**

Industry	Phil GDP	CAR GRDP	CAR Share (%)
<b>TOTAL</b>	<b>7,539.769</b>	<b>133.485</b>	<b>1.8</b>
<b>Agriculture, Hunting, Forestry &amp; Fishery</b>	<b>719.748</b>	<b>12.659</b>	<b>1.8</b>
<i>a. Agriculture &amp; Forestry</i>	<i>591.275</i>	<i>12.451</i>	<i>2.1</i>
<i>b. Fishing</i>	<i>128.473</i>	<i>0.207</i>	<i>0.2</i>
<b>Industry</b>	<b>2,535.795</b>	<b>67.424</b>	<b>2.7</b>
<i>a. Mining &amp; Quarrying</i>	<i>80.500</i>	<i>2.188</i>	<i>2.7</i>
<i>b. Manufacturing</i>	<i>1,760.989</i>	<i>53.401</i>	<i>3.0</i>
<i>c. Construction</i>	<i>447.759</i>	<i>9.248</i>	<i>2.1</i>
<i>d. Electricity, Gas &amp; Water Supply</i>	<i>246.548</i>	<i>2.587</i>	<i>1.0</i>
<b>Services</b>	<b>4,338.225</b>	<b>53.403</b>	<b>1.2</b>
<i>a. Transport, Storage &amp; Communication</i>	<i>581.289</i>	<i>7.842</i>	<i>1.3</i>
<i>b. Trade &amp; Repair of Motor Vehicles, Motorcycles, Personal &amp; Household Goods</i>	<i>1,270.526</i>	<i>7.321</i>	<i>0.6</i>
<i>c. Financial Intermediation</i>	<i>546.714</i>	<i>5.229</i>	<i>1.0</i>
<i>d. Real Estate, Renting &amp; Business Activities</i>	<i>861.492</i>	<i>13.891</i>	<i>1.6</i>
<i>e. Public Administration &amp; Defense; Compulsory Social Security</i>	<i>297.082</i>	<i>4.734</i>	<i>1.6</i>
<i>f. Other Services</i>	<i>781.122</i>	<i>14.385</i>	<i>1.8</i>
<b>Growth Rate (2014-2015)</b>	<b>5.9</b>	<b>3.7</b>	

Source: PSA. Totals may not add up due to rounding.

**Table 3.2 Employment Statistics and Labor Productivity by Major Sector, CAR: 2010-2015**

Industry	2010 Baseline	2011	2012	2013	2014	2015	Average
Employment Rate	94.9	95.0	94.5	95.4	94.5	95.2	<b>94.9</b>
Unemployment Rate	5.1	5.0	5.5	4.6	5.5	4.8	<b>5.1</b>
Underemployment Rate	15.7	14.6	15.5	14.1	13.3	20.8	<b>15.7</b>
<b>Employment by Major Sector (In thousand persons)</b>							
Total	707	729	726	735	741	759	<b>733</b>
Agriculture	375	366	351	348	362	366	<b>361</b>
Industry	78	86	90	96	85	92	<b>88</b>
Services	255	277	287	291	295	300	<b>284</b>
<b>Employment by Class of Worker</b>							
Wage & salary workers	274	285	317	317	309	339	<b>307</b>
Own account workers	250	270	246	260	260	254	<b>257</b>
Unpaid family worker	183	175	164	158	173	166	<b>170</b>
<b>Labor Productivity by Major Sector (In pesos)</b>							
Agriculture	34,781	35,773	37,265	38,055	36,461	34,587	<b>36,154</b>
Industry	813,423	739,977	679,400	663,302	768,765	732,870	<b>732,956</b>
Services	171,161	162,487	153,359	163,955	169,963	178,010	<b>166,489</b>

Source: PSA. Estimates as of August 2016. Totals may not add up due to rounding.

Contributing to the high under-employment is that almost half of the employed are in the agriculture sector mostly located in the rural and hinterland areas in the region where work is seasonal or where wages remain low. Also, even as the number of wage and salary workers has increased over the years, the number of unpaid family workers has not significantly decreased.

The seeming disjoint in the region's sources of growth and employment is reflected in terms of labor productivity. Between 2010 and 2015, labor productivity in industry was fourfold that of services and twentyfold that of agriculture. This signifies the need to improve either the

productivity of the agriculture and services sectors or to increase labor absorption in industry.

CAR's population was estimated at 1.722 million in 2015 increasing by an average 1.21 percent annually from 2010 which is well below the national average growth rate of 1.72 percent (Table 3.3). This rate of increase is also a marked slowdown from the average annual growth of 1.7 percent between 2000 and 2010. CAR remains the least populated region in the country in 2015 accounting for about 1.71 percent of the national population, lower than its 1.78 and 1.75 percent share in 2000 and 2010, respectively.

**Table 3.3 Population Magnitude, Growth and Distribution by Province/City, CAR: 2000, 2010 and 2015**

Province/ City	Magnitude			Average Annual Growth Rate (%)			Distribution (%)		
	2000 (1 May)	2010 (1 May)	2015 (1 Aug)	2000- 2010	2010- 2015	2000- 2015	2000	2010	2015
Abra	209,491	234,733	241,160	1.14	0.52	0.93	15.3	14.5	14.0
Apayao	97,129	112,636	119,184	1.49	1.08	1.35	7.1	7.0	6.9
Baguio City	252,386	318,676	345,366	2.36	1.54	2.08	18.5	19.7	20.1
Benguet	330,129	403,944	446,224	2.04	1.91	1.99	24.2	25.0	25.9
Ifugao	161,623	191,078	202,802	1.69	1.14	1.50	11.8	11.8	11.8
Kalinga	174,023	201,613	212,680	1.48	1.02	1.32	12.7	12.5	12.4
Mt. Province	140,631	154,187	154,590	0.92	0.05	0.62	10.3	9.5	9.0
<b>CAR</b>	<b>1,365,412</b>	<b>1,616,867</b>	<b>1,722,006</b>	<b>1.70</b>	<b>1.21</b>	<b>1.53</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Philippines</b>	<b>76,506,928</b>	<b>92,337,852</b>	<b>100,981,437</b>	<b>1.90</b>	<b>1.72</b>	<b>1.84</b>			
<b>CAR Share to Phil</b>	<b>1.78</b>	<b>1.75</b>	<b>1.71</b>						

Source: PSA

CAR recorded the lowest population density in the country in 2015 at 84 persons per square kilometer compared to the national average of 337 (Table 3.4). Baguio remains the most densely populated in the region and is in fact one

of the highly urbanized cities (HUCs) outside of the National Capital Region (NCR) with a density of more than 6,000 persons and is ranked 4<sup>th</sup> after Mandaue City, Lapu-lapu City and Angeles City.

**Table 3.4 Population Density by Province/City, CAR: 2000, 2010 and 2015**

Province/City	Density (Persons/sq. km.)		
	2000 <sup>1/</sup>	2010 <sup>1/</sup>	2015 <sup>2/</sup>
Abra	66	74	56
Apayao	24	27	26
Baguio City	4,389	5,542	6,004
Benguet	116	143	163
Ifugao	64	76	74
Kalinga	55	64	61
Tabuk City	33.5	27.8	158
Mountain Province	63	69	59
CAR	75	89	84
Philippines	255	308	337

<sup>1/</sup>Based on data from the 2014 Regional Social and Economic Trends. Land area used to compute for 2000 and 2010 density is slightly different from that used in 2015.

<sup>2/</sup>The area of the province is based on the cadastral and estimated land areas (certified and provided to the Department of Budget and Management) from the Land Management Bureau, Department of Environment and Natural Resources.

**Source: PSA**

Meanwhile, Tabuk City is one among the top ten most sparsely populated component cities in the country ranked 3<sup>rd</sup> after Ilagan City, Isabela and Borongan City, Eastern Samar. This shows Tabuk City's promise of further accommodating increased population but needs to increase its competitiveness to attract investments that will generate economic activities in surrounding areas.

There was no significant increase in population of majority of the municipalities in the region between 2000 and 2015 as these remained small towns with populations below 20,000. Being the only highly urbanized city in the region, Baguio City remains the most populous and considered a large town in the region. In 2010, La Trinidad overtook Tabuk City as the second most populous area in the region with both also classified as large towns with populations exceeding 100,000.

In 2015, the provincial capitals of Bangued and Bontoc, along with 11 others are considered medium towns with populations exceeding 20,000. The remaining 61 municipalities, including the provincial capitals Lagawe and Kabugao are classified as small towns with populations below 20,000. For Apayao, the municipality of Luna plays the role of de facto government center and in fact has a bigger population compared to Kabugao, the provincial capital, though Luna is still classified a small town.

Among the small towns, the most sparsely populated municipalities in 2015 with populations under 6,000 are located in Abra. In addition, several small towns were out-migration areas in 2015 including the following municipalities: Danglas, Dolores, Licuan-Baay, Luba, Malibcong, San Isidro, San Juan and Tubo in Abra; Kabugao in Apayao; Lubuagan in Kalinga;

and Barlig, Besao, Sadanga, Sagada and Tadian in Mountain Province.

As with the country, it is projected that CAR's population will slow down from 1.82 percent for the period 2010-2015 to just one percent in 2035-2040 (Table 3.5).

Across provinces, the population in Abra and Benguet are projected to grow the slowest in 2035-2040 at 0.68 and 0.92 percent, respectively. The rest of the provinces are projected to grow by over one percent in the same period.

**Table 3.5 Average Annual Growth Rates of Population by Five Calendar-Year Interval by Province (In percent), CAR: 2010-2045 (Medium Assumption)**

Region/Province	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040
<b>Philippines</b>	<b>1.73</b>	<b>1.59</b>	<b>1.41</b>	<b>1.21</b>	<b>1.02</b>	<b>0.84</b>
<b>CAR</b>	<b>1.82</b>	<b>1.75</b>	<b>1.58</b>	<b>1.35</b>	<b>1.14</b>	<b>1.00</b>
Abra	1.09	1.11	1.09	0.95	0.79	0.68
Apayao	2.06	1.93	1.76	1.50	1.27	1.09
Benguet	1.87	1.77	1.53	1.28	1.07	0.92
Ifugao	2.09	2.03	1.87	1.62	1.43	1.31
Kalinga	1.97	1.89	1.72	1.44	1.20	1.04
Mountain Province	2.01	1.97	1.83	1.59	1.39	1.27

Source: PSA

In magnitude terms, CAR's population will reach the 2 million mark by 2025 and will be around 2.5 million by 2040 (Table 3.6). Benguet will continue to be the most populous with its population projected to

reach the 1 million mark in 2035. The projected population of the rest of the provinces will still be below 350,000 by 2040 with Apayao continuing to be the least populated.

**Table 3.6 Projected Total Population, CAR: 2010-2040 (Medium Assumption)**

Region/Province	2010	2020	2025	2030	2035	2040
<b>Philippines</b>	<b>93,135,100</b>	<b>109,947,900</b>	<b>117,959,400</b>	<b>125,337,500</b>	<b>131,903,900</b>	<b>137,532,200</b>
<b>CAR</b>	<b>1,629,300</b>	<b>1,945,300</b>	<b>2,104,100</b>	<b>2,249,400</b>	<b>2,381,000</b>	<b>2,502,800</b>
Abra	237,200	264,700	279,400	292,900	304,600	315,200
Apayao	113,900	138,800	151,500	163,200	173,600	183,500
Benguet	724,900	868,100	936,500	998,000	1,052,700	1,102,100
Ifugao	193,300	237,100	260,100	281,900	302,600	322,800
Kalinga	204,100	247,000	268,900	288,700	306,700	322,800
Mountain Province	155,900	189,600	207,700	224,700	240,800	256,400

Source: PSA

With the projected population, a “demographic window” for the region will open, as with the country, by 2015 where the proportion of the working age population will be larger than the young and old age population. Consequently, the

region must also take this opportunity to maximize the demographic dividend arising from this change in the population age structure (see Chapter 13 for details on the demographic dividend).

## CAR Physical Characteristics

### Location, Land Area and Political Subdivisions

CAR is a landlocked mountainous region located in the northern central portion of Luzon Island and lies between 120°20' to 121°45' east longitude and 16°40' north latitude.

The location of CAR in a seismically active area of the Philippine archipelago lends the region vulnerable to earthquakes. This seismicity is due to the active faults along the branches of the northern segments of the Philippine Fault Zone such as the Digdig Fault. Also while landlocked, CAR is not spared from exposure to hydrometeorological hazards such as typhoons, floods and rain-induced landslides as the region is usually part of the northeast typhoon path originating from the Northwest Pacific Ocean, the latter described as “the most active tropical cyclone basin in this planet”.

Created in 1987 through Executive Order 220, CAR is composed of the provinces of Abra, Apayao, Benguet, Ifugao, Kalinga, Mountain Province and the chartered city of Baguio. Tabuk City was created in 2007 as a component city of the Province of Kalinga. As of August 2015, there are 75 municipalities and 1,176 barangays occupying 19,818.12 square kilometers of land area that makes up 6.6 percent of the total land area of the Philippines. Apayao has the largest land area covering about 23 percent of total CAR land area followed by Abra at 21 percent. The City of Baguio has the smallest land area occupying 0.3 percent of the region’s total land area (Table 3.7).



**Table 3.7 Land Area and Number of Towns and Barangays by Province/City, CAR: 2015**

Province/City	Land Area (In Sq. km.)	Number of Municipalities	Number of Barangays
Abra	4,199.72	27	303
Apayao	4,502.33	7	133
Baguio City	57.51		129
Benguet	2,769.08	13	140
Ifugao	2,618.01	11	175
Kalinga	3,282.04	7	152
Mountain Province	2,389.43	10	144
<b>CAR</b>	<b>19,818.12</b>	<b>75</b>	<b>1,176</b>
<b>Philippines</b>	<b>300,000.00</b>	<b>1,490</b>	<b>42,036</b>

*Note: The area of the province is based on the cadastral and estimated land areas (certified and provided to the Department of Budget and Management) from the Land Management Bureau, Department of Environment and Natural Resources as indicated in the 2015 Census of Population.*

**Sources: PSA; [www.comelec.gov.ph](http://www.comelec.gov.ph)**

## Topography and Slope

The region is predominantly characterized by steep mountains and high elevation terrain. It hosts 10 of the hundred peaks in the country, one of which is Mount Pulag located in Benguet. Mount Pulag is the highest peak in Luzon and the second highest in the entire country with an elevation of 2,922 meters above sea level.

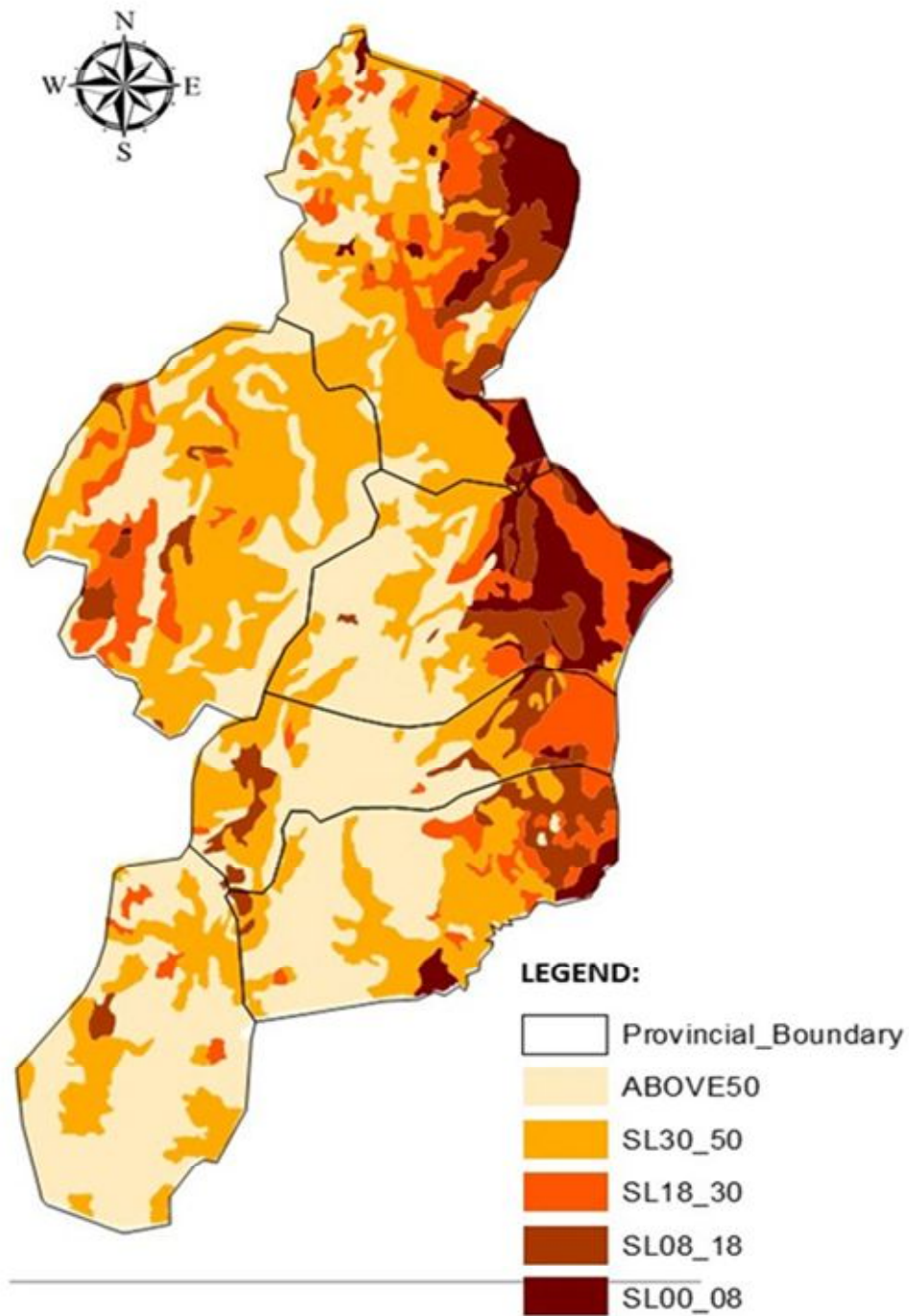
Almost three fourths of CAR's land area have slopes of 30 percent and above (Table 3.8). These areas are located in most of Benguet (85% of its total land area), the western portions of Mountain Province, Ifugao, Kalinga, Apayao, and the eastern portions of Abra (Table 3.8). Only 15 percent is classified under flat rolling landscape, and these are mostly found in Abra and Apayao.

About 33 percent of CAR's land lies 1,000 meters or more above sea level and are mostly located in the provinces of Benguet and Mountain Province thus the cool

temperate climate of these provinces (Table 3.9). These are within the Central Cordillera peaks which have been identified as biodiversity conservation areas. Lowland areas with elevation of less than 500 meters above sea level account for only 30 percent of their aggregate land area. Ifugao shared the bulk of the area with 62 percent of its total area and Benguet shared the least with only 3.5 percent.

Both slope and elevation characteristics of CAR pose limits to the intensity and type of land development to be introduced. Slope stabilization technologies and other erosion-mitigating measures must be intrinsic in project design. In extreme cases, the option not to develop some areas especially in hazardous areas may be the best development option.

*Map 3.1 Slope Map*



**Table 3.8 Slope Characteristics by Province, CAR**

Slope Class	Area (In Square Kilometer)						CAR	
	Abra	Apayao	Benguet	Ifugao	Kalinga	Mountain Province	Area	%
Level to Nearly Level (0-3%)	458.25	396.23	55.08	102.00	201.32	8.40	1,221.28	6.7
Gently Sloping to Undulating (3%-8%)	106.50	88.11	40.24	88.00	84.74	39.84	447.43	2.4
Undulating to Rolling (8%-18%)	272.50	117.42	36.36	269.00	271.21	152.40	1,118.89	6.1
Rolling to Moderately Steep (18%-30%)	296.25	513.00	277.91	462.00	550.30	415.36	2,514.82	13.8
Steep (30%-50%)	221.00	582.00	302.25	323.00	604.75	321.96	2,354.96	12.9
Very Steep (>50%)	2,621.05	2,496.82	1,943.44	1,273.78	1,141.74	1,159.41	10,636.24	58.1
<b>TOTAL</b>	<b>3,975.55</b>	<b>4,193.58</b>	<b>2,655.28</b>	<b>2,517.78</b>	<b>2,854.06</b>	<b>2,097.37</b>	<b>18,293.62</b>	<b>100.0</b>

Source: CAR Regional Physical Framework Plan: 2004-2034

**Table 3.9 Elevation Characteristics by Province, CAR**

Elevation (Meters above sea level)	Area (In Square Kilometer)						CAR	
	Abra	Apayao	Benguet	Ifugao	Kalinga	Mountain Province	Area	%
Less than 100	246.5	654.6		47.3	340.0	31.4	1,319.8	7.2
100 to 300	486.5	246.1	16.9	780.3	487.8	163.4	2,180.9	11.9
300 to 500	376.5	441.0	77.2	737.9	243.2	223.7	2,099.6	11.5
500 to 1,000	1,997.1	2,592.9	723.5	374.5	710.0	314.0	6,712.0	36.7
1,000 to 2,000	835.0	226.9	1,699.6	420.6	1,010.0	1,262.8	5,455.0	29.8
More than 2,000	34.0	32.0	138.2	157.1	63.1	102.0	526.4	2.9
<b>TOTAL</b>	<b>3,975.6</b>	<b>4,193.6</b>	<b>2,655.4</b>	<b>2,517.8</b>	<b>2,854.1</b>	<b>2,097.3</b>	<b>18,293.7</b>	<b>100.0</b>

Source: CAR RFPF 2004-2034

## Climate and Weather

CAR's climate is classified as "Type 1" and characterized by two pronounced seasons: dry from November to April, and wet during the remaining months. Dry season is due to the Northeast Monsoon when the air stream that reaches the country from late October to early March is "rained out" before it gets through to the western part of the country. The wet season is due to the impact of the Southwest Monsoon which occurs from May to October.

The interaction of the region's general topography assigns most of the region's area under a cool-highland pedo-ecological zone (Table 3.10). The highly elevated provinces of Benguet and Mountain Province greatly exhibit this condition. Meanwhile, the provinces of Ifugao, Kalinga, Apayao and Abra, where the low-lying areas are located, have warm climate.

Bulk of the region's area is within the cool highland areas with elevation above 500 meters above sea level. This accounted for about 70 percent of the total land area or an expanse of 1,269,337 hectares. In terms of agriculture, these areas are ideal for semi-temperate high-income generating cash crops that can never be grown profitably in lower pedo-ecological zones. In most areas, this zone has long growing periods, normally 300 days or more.

Lowland crops grown in this zone will suffer from delayed maturity and severe problems on disease and pests. Under this pedo-ecological zone, Benguet had the biggest area accounting for about 90 percent of its area totaling 258,131 hectares, followed by Mountain Province with 80 percent of its total area or 167,881 hectares.

## Geological Features

CAR lies in a seismically active region of the Philippine archipelago making human habitation in certain areas vulnerable to earthquake hazards. The region attributes its seismicity to the active faults along the branches of the northern segments of the

Philippine Fault Zone such as the Digdig Fault and the active subduction along the Manila Trench. The devastating earthquake of July 1990 was believed to have originated from the Digdig Fault.

## Hazard Vulnerability

Natural hazards are defined as geologic processes that adversely affect humans and properties. Due to its topography, a significant portion of CAR is prone to natural hazards. This includes the significant portion classified as very steep

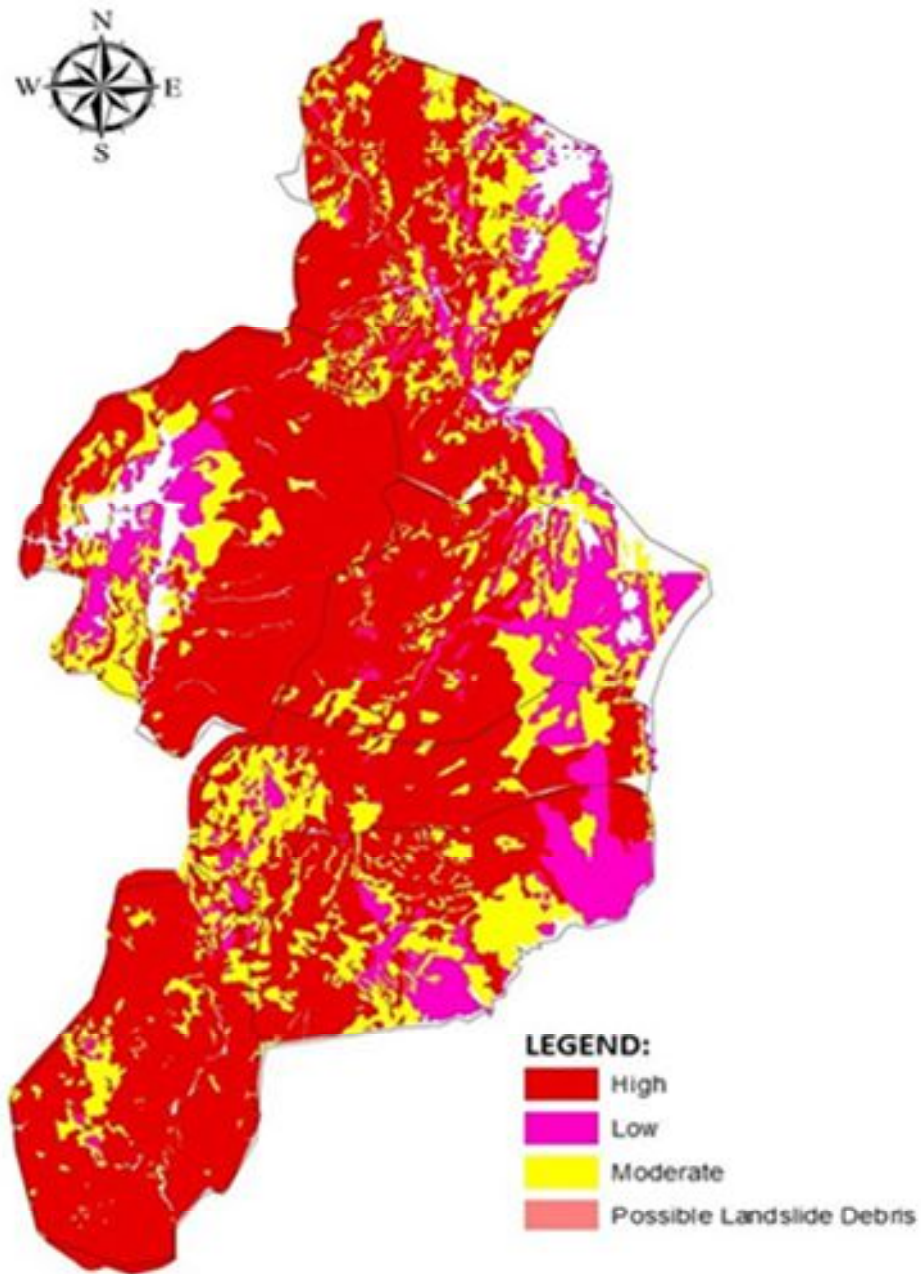
and prone to landslides and other mass movements and erosion (Map 3.2). The region is also prone to earthquakes as already described.

**Table 3.10 Pedo-Ecological Zone by Province, CAR**

Province	Pedo-ecological zones				Misc.	Total	% to Total
	Warm Lowland	Warm Cool Upland	Warm Cool Hillyland	Cool Highland			
Abra	26,294	15,456	52,540	286,609	16,656	397,555	21.74
Benguet	1,319	2,350	3,450	256,131	2,288	265,538	15.66
Ifugao	6,024	83,477	61,861	95,224	5,192	251,778	13.76
Kalinga-Apayao	90,843	51,376	91,522	463,492	7,531	704,764	38.52
Mountain Province	3,835	22,696	12,414	167,881	2,907	209,733	11.46
<b>CAR</b>	<b>128,315</b>	<b>175,355</b>	<b>221,787</b>	<b>1,269,337</b>	<b>34,574</b>	<b>1,829,368</b>	<b>100</b>
% Total agricultural area	7.0	9.6	12.1	69.4	1.9	100	
<i>Pedo Ecological zones</i>	<i>Description</i>						
<i>a. Warm lowland</i>	< 8% slope, <100 m. elevation, >25 °C						
<i>b. Warm cool upland</i>	<18% slope, 100-500 m. elevation, >22.5-25 °C or 8-18% slope, <100 m. elevation, >25 °C						
<i>C. Warm cool hillyland</i>	>18% slope, <500 m. elevation, >25 °C						
<i>d. Cool highland</i>	>500 m. elevation, <22.5 °C						

**Source: CAR RFPF 2004-2034**

*Map 3.2 Areas Prone to Rain-Induced Landslides*



## Water and Land Resources

CAR serves as the watershed of North Luzon. The region cradles 12 major river basins which have been affirmed to have enormous water-bearing capacity. With an estimated drainage area of 18,293 square kilometers, these river basins make CAR a major contributor to the Luzon Power Grid and are also a source of irrigation for the region's agricultural

lands. It is also a source of water for domestic consumption and industrial needs of the region.

Table 3.11 shows the proclaimed forest and watershed reservations in CAR and their expanse, revealing that these cover most of the region.

**Table 3.11 Forest and Watershed Reservations, CAR**

Name of Reservation	Coverage
Central Cordillera Forest Reserve	Abra, Apayao, Bneguet, Kalinga, Mountain Province
Mount Santo Tomas Forest Reserve	Tuba, Benguet
Upper Agno River Basin Resource Reserve	Bokod, Buguias, Kabayan and parts of Tublay, Benguet
Chico River Forest Reserve	Mountain Province, Kalinga and Apayao (Nabuangan)
Asin Forest Reserve	Tuba, Sablan
Busol Watershed Reservation	Baguio City, La Trinidad
Baguio Forbes Part Forest Reservation	Baguio City
Baguio Forest Reserve	Baguio City
Crystal Cave Forest Reserve	Baguio City
Lucnab Watershed and Forest Reserve	Baguio City
Camp 8 Military Watershed Reservation	Baguio City
Buyog Watershed Reservation	Baguio City
Camp John Hay Forest Reserve	Baguio City
Sto. Domingo Forest Reserve	Ifugao
Ifugao Forest Reserve	Lagawe and Mayoyao, Ifugao
Natonin Forest Reserve	Natonin, Mountain Province and Mayoyao, Ifugao
Central Mayoyao Forest Reservation	Mayoyao, Ifugao
Marcos Highway Forest Reserve	Agoo, La Union to Baguio City
Abulog Forest Reserve	Kabugao, Apayao
Central Conner Forest Reserve	Conner, Apayao
Natonin-Tabuk-Tanudan Forest Reserve	Tanudan, Kalinga
Hapol-Agan Forest Reservation	Mankayan, Benguet
Mount Data National Park	Halsema Highway, Benguet and Mountain Province
Balbalasang-Balbalan National Park	Western portion of Balbalan, Kalinga
Mount Pulag National Park	Portions of Nueva Vizcaya, Ifugao and Mountain Province
Cassamata National Park	Bangued, Abra
Guimitara Watershed Forest Reserve	Pidigan, Abra
Malublub Watershed Forest Reserve	Pidigan, Abra
Besa Watershed Forest Reserve	Besao, Mountain Province
Damlusong Watershed Forest Reserve	Besao and Sagada, Mountain Province
Bontoc-Ifugao Forest Reserve	Banaue, Ifugao and Bontoc, Mountain Province
Lower Agno Watershed Forest Reserve	Itogon, Benguet
Magat River Reserve	Ifugao, Isabela

Source: CAR RFPF 2004-2034



## Land Classification and Land Cover

Only about 15 percent of the region's land area or 282,543 hectares are classified as alienable and disposable and 85 percent or 1,583,117 are classified as forest land including those within protected areas (Table 3.12). Such land classification, along with the steep terrain of the region, limits areas suitable for agriculture and settlements such that farms and built-up areas encroach into forest areas. This is alongside the problems of congestion in

the urban and urbanizing areas specifically the Baguio-La Trinidad area and provincial capital towns.

Land cover considers major land use categories. Closed and open forest including forest plantations constitute about 42.9 percent of the region's land cover (Table 3.13). Built-up areas that are included under Other Land covers an area of 15,956.6 hectares or less than a percent (0.86%) of the region's total land cover.

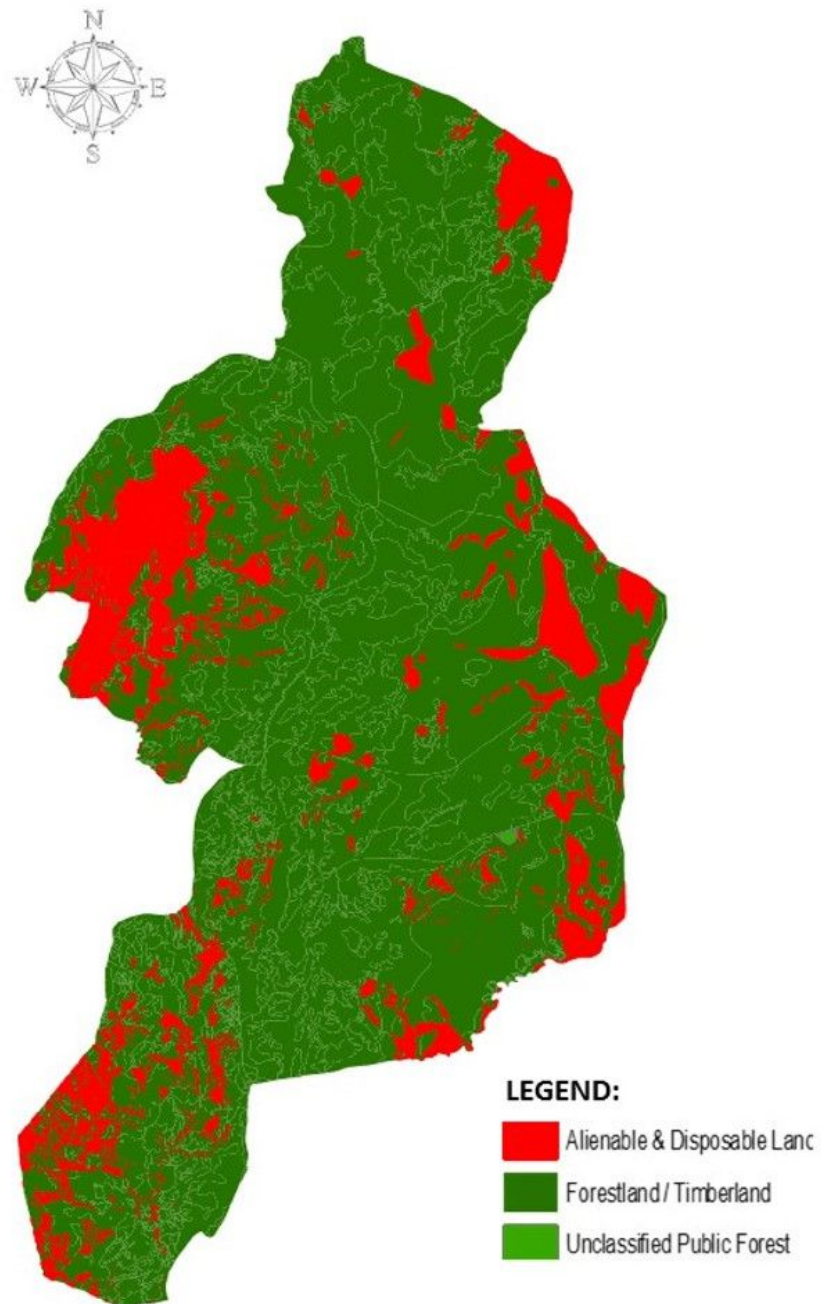
*Table 3.12 Status of Land Classification by Province (In hectares), CAR: 2015*

Province	Total Land Area	Certified Alienable & Disposable	% Share to Total	Forest Land	% Share to Total
<b>CAR</b>	<b>1,865,660</b>	<b>282,543</b>	<b>15.1</b>	<b>1,583,117</b>	<b>84.9</b>
Abra	385,692	97,259	25.2	288,433	74.8
Apayao	423,613	44,079	10.4	379,534	89.6
Benguet	305,117	59,601	19.5	245,515	80.5
Ifugao	258,282	24,974	9.7	233,307	90.3
Kalinga	264,892	41,183	15.5	223,710	84.5
Mountain Province	228,064	15,447	6.8	212,617	93.2

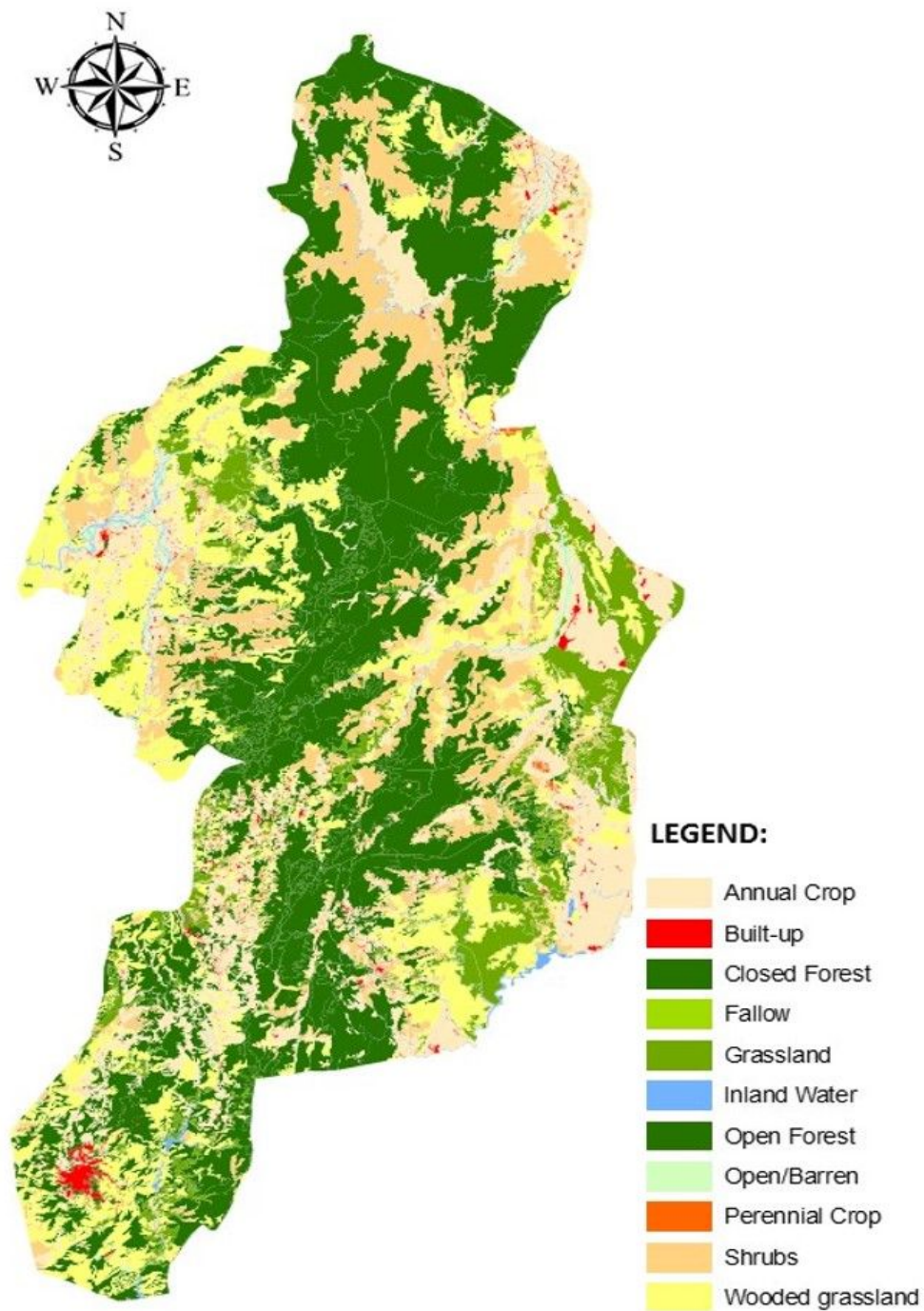
Source: PSA, 2016 Regional Social and Economic Trends



*Map 3.3 Land Classification Map, CAR: 2015*



*Map 3.4 Land Cover Map, CAR: 2010*



## Protection and Production Lands

CAR's protection areas cover a significant portion of the region's total land area.

These are: (1) areas under the National Integrated Protected Areas System (NIPAS) and (2) those outside the NIPAS but nonetheless require protection because

of their proclamation as forest reservations/watersheds, their possession of critical physical features such as steep slope and high elevation, their educational, aesthetic and biological diversity values, and/or their being prone to natural/geologic hazards.

**Table 3.13 Land Cover (In hectares), CAR: As of December 2015**

Land Cover	Area (In hectares)	Percent Distribution
Closed Forest	254,367.1	13.6
Open Forest	532,295.4	28.5
Forest Plantation	14,415.1	0.8
Other Wooded Land	637,338.0	34.2
Other Land	404,047.6	21.7
Inland water	23,196.6	1.2
<b>Total</b>	<b>1,865,660</b>	<b>100.0</b>

*Note: Closed forest includes broadleaved, coniferous and mixed. Open forest includes broadleaved, coniferous, mixed. Other wooded land includes fallow, shrubs and wooded grassland. Forest plantation includes broadleaved, coniferous and mixed. Other wooded land includes fallow, shrubs and wooded grassland. Other land includes built-up area, cultivated annual and perennial crop, natural barren land and natural grassland.*

**Source: PSA, 2016 Regional Social and Economic Trends**

Table 3.14 shows the existing, proposed and potential protected areas (PAs). The region has seven initial protected area components under the NIPAS covering 141,427 hectares or about 8 percent of CAR's land area. These are subject to further study and assessment to determine whether or not these will be finally included in the NIPAS. Foremost among these is Mount Pulag National Park, considered one of the country's 18 priority sites for conservation on account of its global and national significance.

Production lands in the region include agricultural areas, production forests, mineral lands, industrial and tourism development areas where productive

activities can be undertaken. Ifugao, Abra, Kalinga and Benguet share the region's biggest agricultural areas with the first three provinces remaining as the region's major supplier of grains while Benguet is the region's source of semi-temperate vegetables, fruits and rootcrops. CAR's production forests approximate the size of its agricultural areas and are utilized for timber production and non-timber uses and are mostly located in Mountain Province, Ifugao and Apayao. Mineral areas are largely located in Benguet that produces gold, silver, copper and other metallic deposits. Proclaimed economic zones in the region include the Baguio City Economic Zone, John Hay Special Tourism Economic Zone, Abra Special

Economic Zone and Kelly Business Park in Itogon, Benguet. Kalinga is the only province in the region declared as a Tourism Development Area (TDA) under Republic Act No. 10561.

**Table 3.14 Existing, Proposed and Potential Protected Areas (PAs), CAR: 2004**

Name of Protected Area	Location	Area (In hectares)	Proclamation No. and Date
<b>A. Existing</b>			
Mount Pulag National Park	Benguet, Ifugao, Nueva Vizcaya	11,550.00	Proc. No. 75 (February 20, 1987)
Cassamata Hill National Park	Abra	57.00	Proc. No. 1305 (August 26, 1974)
Mount Data National Park	Benguet, Mountain Province	5,512.00	Proc. No. 634 (October 18, 1940)
Balbalasang-Balbalan National Park	Kalinga	1,338.00	Proc. No. 1375 (December 19, 1974)
Upper Agno River Basin Resource Reserve	Benguet, Ifugao, Nueva Vizcaya	77,561.00	Proc. No. 548 (April 19, 1996) Proc. No. 120 (November 25, 1996)
Lower Agno Watershed Forest Reserve	Benguet	39,304.00	Proc. No. 2320 (November 22, 1983)
Marcos Highway Watershed Forest Reserve	Benguet	6,105.00	Proc. No. 1754 (June 22, 1978)
Total		141,427.00	
<b>B. Proposed</b>			
Mount Poswey	Abra	3,168.08	
Mount Kalawitan	Mountain Province and Ifugao	12,143.00	
Aran Caves	Benguet	107.00	
Agora	Apayao	3,750.00	
Quiling Crystal Cave	Abra	50.88	
Luna Protected Landscape	Apayao	3,700.00	
Nagan-Maton	Apayao	3,533.00	
Marag Valley Protected Landscape	Apayao	8,000.00 <sup>1/</sup>	
<b>C. Potential</b>			
Mount Polis-Mount Napulawan	Ifugao and Mountain Province		
Mount Amoyao Mountain Ranges	Central Cordillera		
Lower Apayao Dipterocarp Forest	Apayao		
Abra River <sup>2/</sup>	Abra		
Agno River <sup>3/</sup>	Benguet and Pangasinan		

## Regional Spatial Strategy

The region adopts a “*North and South Clusters Plus*” regional spatial strategy. Elements of this strategy are: (1) the establishment of two primary or regional growth centers located in the southern and northern portions of the region; and (2) designation of secondary and tertiary growth centers dispersed across the region. The regional spatial strategy adopts the three component strategies of the National Spatial Strategy as adopted in the Luzon Spatial Development Framework (LSDF) 2014-2045 namely: (1) concentration; (2) connectivity; and (3) vulnerability reduction.

The proposed regional hierarchy of settlements in the region follows the principle of concentration. That is, larger settlements in terms of population are positioned in the upper tier while smaller population centers are positioned in the lower tiers. However, the special case of smaller settlements identified to have strategic roles are also placed in the upper levels of the hierarchy. Likewise, settlements strategically located in clusters of settlement and whose aggregate population satisfy the population threshold are also placed in the upper tiers.

The two primary and regional, growth centers in the region are the BLISTT (Baguio City-La Trinidad-Itogon-Sablan-Tuba-Tublay) metro area as the southern growth node and Eastern Kalinga (Tabuk-Pinukpuk-Rizal) as the northern growth node. Meanwhile, the dispersed spatial strategy is represented by secondary (provincial) and tertiary (sub-provincial)

growth centers spread across the region that shall act as service centers and as catalysts of growth for the more remote parts of the Cordillera.

The designation of BLISTT and Eastern Kalinga as regional growth centers is aligned with their role as the primary urban centers in the region. BLISTT, considered as large settlement in terms of population, shall serve as the regional commercial and service center and interim regional government center pending the creation of an autonomous region in the Cordillera. The area will continue to play its special role as the major industrial center, tourism gateway of the Cordillera, regional center for health, and education center of North Luzon.

Eastern Kalinga comprising Tabuk City and the contiguous municipalities of Rizal and Pinukpuk has the strategic role of being the agri-industrial center of the region along with its potential as commercial and settlement area given the vast expanse of land. In addition, Kalinga’s development as the only Tourism Development Area (TDA) in the region will likely spur its development further that will require the establishment of additional commercial, trade and services facilities than currently available. The inclusion of Rizal and Pinukpuk seeks to prevent future problems of urban sprawl and congestion in Tabuk City given the various roles and functions that the City can perform with the realization of an autonomous region.



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The secondary growth centers in the region shall be the provincial capital towns - Bangued, Abra; Kabugao, Apayao; La Trinidad, Benguet; Lagawe, Ifugao; Tabuk City, Kalinga and Bontoc, Mountain Province - to serve as government, commercial and service centers.

The tertiary growth centers are strategic municipalities that will act as service centers and catalysts of growth for the more remote parts of the Cordillera - Manabo, Abra; Luna, Apayao; Buguias, Benguet; Alfonso Lista, Ifugao; Lubuagan, Kalinga; and Bauko, Mountain Province.

The connectivity strategy aims to enhance linkages of communication, transportation (land, air and sea) and economic infrastructure systems to: (1) increase access and to improve the efficiency of markets; (2) manage growth and the development of settlements according to specific urban and regional plans; and (3) reduce vulnerability during emergency situations by increasing redundancy of transportation routes, communication and other infrastructure facilities.

In CAR, priority shall be given to infrastructure: (1) connecting the region to other regions through air and land; (2) connecting the regional and provincial growth centers to each other, as well as connecting the provincial growth centers to rural areas; (3) that will enhance the competitiveness of provincial growth centers and emerging municipalities that will complement or generate new economic activities; and (4) provide redundancy during emergency situations.

As with the LSDF, vulnerability reduction will be integrated with the strategies of concentration and connectivity. The focus shall be in securing the safety of settlements and ensuring the sustainable operation of production and value-chain processes from the threats of geologic and hydrometeorologic hazards. The primary objective of vulnerability reduction is to separate, or control, the extent of interaction between the general population and areas that need to be protected and areas that are disaster prone.

In CAR, vulnerability reduction will address the major vulnerabilities of the region specifically rain-induced landslides and flooding along with protecting the critical watersheds in the region. As a general principle, the central part of the region with steep slopes of 50 percent and above shall primarily be a conservation and protection zone, with minimal or controlled development to be introduced to protect the mossy, pine, old growth forests and NIPAS (National Integrated Protected Areas System) areas within the zone. This is in recognition of the region's critical role as the Watershed Cradle of North Philippines. The non-protection areas, mostly located in the lowland areas of Kalinga, Apayao, Mountain Province and Abra shall be developed for agriculture and agri-industrial activities or settlements owing to the wide expanse of flat lands and rich agricultural resources in these areas.

The region will continue to adopt strategies such as the area development planning and industry clustering towards achieving inclusive growth. This is to take advantage of economies of scale in defining and developing strategic nodes of economic activities or to clearly define the forward and backward linkages of industries and enterprises to increase multiplier effects to sustain growth and development. Such strategies hope to reduce the wide divide in investments, employment and delivery of basic social services to address the persistent disparity in incomes and in the status of social and human development indicators.

To increase the region's competitiveness, CAR will continue to manage or initiate the growth of special development areas identified by cooperating provinces and municipalities that will act as critical growth nodes. These include the following: (1) Metro Bangued that includes the municipalities of Bangued, La Paz, Pidigan, Peñarubia and Tayum as primary service center for Abra;

(2) Buguias-Mankayan area needing special management of its growth as major agriculture trading and commercial center given its vulnerability to natural hazards and potential regional reach with its connectivity to Ifugao, Mountain Province and Ilocos Sur; (3) Paco Valley in the lowland municipalities of Flora and Pudtol in Apayao as another agri-industrial area; (4) PALMANABA consisting of the contiguous municipalities of Paracelis, Alfonso Lista and Mayoyao in Ifugao and the municipalities of Natonin and Barlig in Mountain Province in the eastern area of CAR bordering with Isabela in the Cagayan Valley (Region 2) as agri-industrial processing and ecotourism sites; and (5) SABATABESA (Sabangan-Bauko-Tadian-Besao-Sagada) for activities such as watershed protection, ecotourism, agro-processing, hydropower supply, education and trading, forest production, cattle production, and fruits, vegetables and coffee production.



# 04 The Framework



# The Cordillera Regional Development Plan 2017-2022 Framework

## Cordillera RDP 2017-2022 Framework

The Cordillera Regional Development Plan 2017-2022 adopts the overall strategic framework of the Philippine Development Plan 2017-2022 to lay down a solid foundation for more inclusive growth, a high trust and resilient society and a globally competitive knowledge economy through its strategies of “*Malasakit*”, “*Pagbabago*” and “*Patuloy na Pag-unlad*.”

## CAR Development Vision

We, the people of the Cordillera, proud of our culture and heritage rooted in spirituality shall have a truly autonomous region of a united, enlightened and empowered citizenry who shall pursue sustainable development where responsibilities and benefits are shared by all.

## Regional Development Goals

The region will continue to pursue the following regional development goals:

- a. ***Social and human development:*** to ensure that the region’s economic growth strategy results to improved quality of life and total human development of all Cordillerans.
- b. ***Sustained economic growth:*** to diversify the region’s sources of economic growth anchored on its areas of comparative advantage and specialization and gradually increase its contribution to national growth and development.
- c. ***Environmental quality and sustainable use of resources:*** to protect the region’s natural assets and biodiversity, promote environmental quality, restore ecological balance and increase resiliency of individuals and communities.
- d. ***Cultural integrity and cultural identity:*** to be a model of IP self-determination and sustainable development under a social justice, peace and development, and human rights framework.

- e. ***Regional integration:*** to develop an efficient and reliable transportation and communication network to interconnect provincial capitals and major growth centers and build up the economic backbone of the region.
- f. ***Regional autonomy:*** to pursue and capitalize on the constitutional provisions embodied in Article 10, sections 15-21 of the 1987 Philippine Constitution for the establishment of an autonomous region in the Cordilleras as an add-on development edge in advancing, if not fast-tracking regional socio-economic development.

## Macroeconomic Targets

The region expects to sustain its economic growth in the medium-term by focusing on strategic sectors. The Gross Regional Domestic Product is projected to grow by an average 4.2-5.8 percent per year to reach between Php177.168-194.901 billion in 2022.

Growth is projected to be fastest in the services sector even as industry will continue to contribute the biggest to regional gross output. Agriculture is expected to slowly recover during the Plan period.

Coming from a low base in 2015, the agriculture sector is projected to grow by an average 2.1-3.1 percent per year with gross value added amounting to Php14.185-15.191 billion by 2022. The sector will continue to contribute the least to regional gross output. The region will focus on the recovery in

palay and corn production, sustained production of semi-temperate vegetables, and increased production of specialty crops as organic vegetables, heirloom rice and coffee to lift agricultural output. The region will focus on linking the agriculture sector to industry specifically agri-business development and agricultural products processing.

Industrial gross output is projected to grow between 3.9-4.9 percent during the Plan period reaching Php86.607-92.629 billion by 2022. Manufacturing will continue to be the major source of growth with sustained though slow pick-up in demand for electronics and for aircraft and aerospace machinery. The electronics sector is forecast to grow between 2-5 percent in the medium-term.

*Table 4.1 Macroeconomic Targets, CAR: 2017-2022*

Indicator	Actual 2015	Forecast 2016	Forecast					
			2017	2018	2019	2020	2021	2022
GRDP and GVA Growth Rate (In percent)								
GRDP	3.7	3.9-4.9	4.0-5.0	4.4-5.4	4.4-5.4	4.9-5.9	5.0-6.0	5.3-6.3
AHFF	(4.1)	0.0-1.0	1.0-2.0	1.5-2.5	1.5-2.5	2.0-3.0	2.5-3.5	3.0-4.0
Industry	3.2	3.0-4.0	3.0- 4.0	3.5-4.5	3.5-4.5	4.0-5.0	4.0-5.0	4.5-5.5
Services	6.5	6.0-7.0	6.0-7.0	6.0-7.0	6.0-7.0	6.5-7.5	6.5-7.5	6.5-7.5
GRDP and Sectoral Gross Value Added (GVA) (In billion pesos at 2000 prices)								
GRDP	133.485	138.691- 140.026	144.239- 147.027	146.316- 154.967	152.753- 163.335	160.238- 172.971	168.250- 183.350	177.168- 194.901
AHFF	12.659	12.659- 12.786	12.786- 13.041	12.977- 13.367	13.172- 13.702	13.435- 14.113	13.771- 14.607	14.185- 15.191
Industry	67.424	69.447- 70.121	71.530- 72.926	74.034- 76.207	76.625- 79.637	79.690- 83.619	82.877- 87.800	86.607- 92.629
Services	53.403	56.607- 57.141	60.004- 61.141	63.604- 65.421	67.420- 70.000	71.802- 75.250	76.470- 80.894	81.440- 86.961
Employment (In percent)								
Labor Force Participation Rate	67.1	67.5	68.0	68.2	68.4	68.6	68.8	69.0
Employment Rate	95.2	95.4	95.4	95.6	95.6	95.8	95.8	96.0
Unemploymen t Rate	4.8	4.6	4.6	4.4	4.4	4.2	4.2	4.0
Underemploy ment Rate	20.8	24.5	24.0	23.0	22.0	21.0	20.0	19.0
Poverty Incidence (In percent)								
Poverty Incidence Rate (Population) (%)	19.7 (2015)	19.3	19.0	18.5	18.0	17.5	16.7	15.9

Assistance to micro, small and medium enterprises (MSME) will be increased to increase their share in manufacturing and encourage them into agri-business development specifically the areas of coffee, fruits and vegetables processing, wood-based manufacturing, gifts, toys and souvenirs and loom weaving. Construction - both public and private, along with increased electricity generation activities amid growing interest in renewable energy development specifically mini, micro and small hydropower generation are also expected to contribute to industrial growth. Mining and quarrying is expected to further contract with lingering low world metal prices and pronouncements of stricter regulations on the mining industry.

The services sector is projected to grow between 6.3-7.3 percent per year with gross value added reaching Php81.440-86.961 billion by 2022. This will come from the following: (1) sustained increase in Information Technology-Business Process Outsourcing (IT-BPO) activities that is

expected to spur real estate development, renting activities and ancillary services specifically communications and power especially with Baguio City still in the list of the 10 “next wave cities” for the BPO sector and with the proposed establishment of feasible economic zones for domestic markets/agri-industrial zones in the other provinces; (2) sustained increase in tourist arrivals that will spur trade, transport and health and wellness activities; (3) sustained increase in student enrolment especially for higher education that will spur trade, transport, education and education-allied services.

With the projected growth of the economy, available jobs are expected to increase reducing the unemployment rate that is targeted to be at 4 percent by 2022. The regional poverty incidence rate in terms of population is projected to drop to 15.9 percent in 2022 from 19.7 percent in 2015 resulting from the growth of the regional economy.

PART II

# **ENHANCING THE SOCIAL FABRIC ("MALASAKIT")**







05

Ensuring  
People-Centered,  
Clean, and Efficient  
Governance



## Chapter 5

# Ensuring People-Centered, Clean and Efficient Governance

A high-trust society broadens the opportunities for inclusive development. It is a necessary condition for facilitating official and business transactions, as well as interpersonal relationships. Citizens obey the law – pay the correct taxes with the ardent belief that the government will conscientiously manage the fiscal resources. On the other hand, the government wisely and adequately allocates resources for public goods and services, where it is most needed, and when it is needed. The tax-paying public, meanwhile, are able to pursue their economic activities and other interests, secure in the knowledge that their rights over the fruits of their labor are protected both by the government and their fellow citizens.

## Assessment and Challenges

### Development Administration and Management

**Limited participation was observed among local government units (LGUs) in CAR in the Cities Municipalities Competitiveness Index (CMCI).** The CMCI is an annual ranking of Philippine cities and municipalities developed by the National Competitiveness Council (NCC) through the Regional Competitiveness Committees (RCCs). An approximate yardstick on the development prospects of localities, the CMCI ranks cities and municipalities into three major pillars: (a) economic dynamism; (b) government efficiency; and (c) infrastructure.

In 2016, a total of 1,389 of 1,634 (84.8%) LGUs throughout the country participated in the CMCI. Of this, 56 of the 77 (72.7%) came from CAR though this has already improved compared to only 45 in 2015.

Baguio City is among the participants in the 34 competing Highly Urbanized Cities (HUCs) while Tabuk took part as one of the 110 Independent and Component Cities. In addition, 12 municipalities from CAR from the 490 1<sup>st</sup> – 2<sup>nd</sup> class municipalities nationwide and 42 out of 755 3<sup>rd</sup> – 6<sup>th</sup> class municipalities also took part in the nationwide competition.

Based on the overall ranking constituting the three major pillars, three LGUs from CAR made it to Top 20 in 2016 with Tublay, Benguet placing 20<sup>th</sup> out of 755 3<sup>rd</sup> – 6<sup>th</sup> class; La Trinidad, Benguet at 14<sup>th</sup> place, besting the other municipalities under the 490 1<sup>st</sup> – 2<sup>nd</sup> class category; and Baguio City, 6<sup>th</sup> out of 34 belonging to the HUCs in the country (Table 5.1).

**Table 5.1. Cities Municipalities Competitiveness Index Awards for Overall Ranking, and Ranks for Government Efficiency, Economic Dynamism and Infrastructure, 2016**

	Government Efficiency Rank	Economic Dynamism	Infrastructure	Overall Rank
<b>3<sup>rd</sup> – 6<sup>th</sup> Class LGU (Out of 755)</b>				
Tublay, Benguet	6			20
Buguias, Benguet			18	
Alfonso Lista, Ifugao		15		
Lagawe, Ifugao		20		
<b>1<sup>st</sup> – 2<sup>nd</sup> Class LGU (Out of 490)</b>				
La Trinidad, Benguet	11			14
Bontoc, Mt. Province	14			
<b>Component Cities</b>				
No CAR LGU in top 20				
<b>Highly Urbanized Cities (Out of 34)</b>				
Baguio City	7	17		6

Source: DTI-CAR

Localities making it to the Top 20 are understood to be the ideal and preferred sites to build and grow businesses.

With respect to the pillar on government efficiency alone, Tublay ranked 6<sup>th</sup>, La Trinidad, 11<sup>th</sup>, Bontoc 14<sup>th</sup> and Baguio City, 7<sup>th</sup>. Moreover, in the area of economic dynamism, Alfonso Lista and Lagawe, both in Ifugao, ranked 15<sup>th</sup> and 29<sup>th</sup>, respectively while Baguio City placed 17<sup>th</sup>. For infrastructure, only Buguias in Benguet was able to land in the Top 20 with a rank of 18<sup>th</sup>.

**Government services of Regional Line Agencies (RLAs) have generally improved over the years but can still be further enhanced.** Aimed at simplifying procedures and facilitating transactions with the public, Republic Act 9485 or the

Anti-Red Tape Act (ARTA) of 2007 requires RLAs and LGUs to display in conspicuous places their respective service standards, e.g., the Citizen's Charter, including availability of Anti-Fixer campaign materials, complaints desks, manned public assistance desks and observance of "No Noon-Break" policy, among others. The ARTA-Report Card Survey (ARTA-RCS), a client feedback survey of government service/field offices aims to reduce bureaucratic red tape in government. According to reports of the Civil Service Commission (CSC), frontline services of RLAs in CAR have generally improved, as shown in Table 5.2.

**Table 5.2 Number and Percentage of Regional Line Agencies with Passing Rating in Anti-Red Tape Act-Report Card Survey, CAR: 2011-2015**

RATING	2011		2012		2013		2014		2015	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
<b>Excellent</b>	0	0%	2	7%	2	7%	11	31%	14	37%
<b>Good</b>	7	50%	22	73%	24	86%	21	58%	23	61%
<b>Acceptable</b>	7	50%	6	20%	2	7%	4	11%	1	2%
	14		30		28		36		38	

Source: CSC 5-Year Accomplishment Report

From 2011 to 2015, the number of RLAs that complied with the ARTA-RCS has constantly increased from 14 in 2011 to 38 in 2015. Among the 38 RLA frontline services assessed in 2015, 14 or 37 percent obtained a rating of excellent; 23 or 61 percent were rated as good while only one was rated acceptable.

Among the critical factors cited by the CSC-CAR as contributing to satisfaction of clients are: (1) top management support and monitoring of compliance with RA

9485; (2) creation of ARTA Team/Task Force in the agencies which facilitated the monitoring of ARTA activities; and (3) orientation of employees on their ARTA charter.

Relatedly, six government agencies in CAR were conferred the Citizen's Satisfaction Center Seal of Excellence Award by the CSC-CAR in 2015. Table 5.3 shows these six agencies with their corresponding ratings.

**Table 5.3 Recipients of Citizen's Satisfaction Center Seal of Excellence Award in 2015**

AGENCIES/Service Offices	Rating
Government Service Insurance System (GSIS)-Baguio City	90.94 percent
Philippine Statistics Authority (PSA)-Abra Provincial Office	91.88 percent
Philippine Health Insurance Corporation (PHIC) offices in:	
Baguio City	93.97 percent
Mountain Province	93.09 percent
Abra	91.44 percent
Apayao	90.09 percent

Source: CSC-CAR Website

**The number of LGU awardees of the Seal of Good Local Governance (SGLG) Awards has significantly increased though this can still be improved.** The SGLG aims to challenge LGUs to continue good governance practices as they provide better services to their constituents. It assesses the LGUs along the areas of good financial housekeeping, disaster preparedness, social protection for the

basic sector, business-friendliness and competitiveness, environmental management, and law and order and public safety.

In 2015, only eight (9.6%) of the 83 LGUs were conferred the SGLG but this increased to 22 (26.5%) in 2016. The 2016 awardees consist of three provinces, two cities and 17 municipalities (Table 5.4).

**Table 5.4 Seal of Good Local Governance Awardees, CAR: 2015 and 2016**

Provinces	
2015	2016
Abra	Benguet
Benguet	Kalinga
Kalinga	Mt. Province
Cities	
2015	2016
Baguio City	Baguio City
	Tabuk City
Municipalities	
2015	2016
ABRA	
San Juan	Bucay
	Dolores
	La Paz
	Penarrubia
	San Juan
	Tayum
APAYAO	
Calanasan	Luna
	Pudtol
	Sta. Marcela
BENGUET	
Tublay	Itogon
	Kapangan
	La Trinidad
	Tublay
IFUGAO	
Lamut	Banaue
	Lamut
KALINGA	
N/A	Balbalan
MOUNTAIN PROVINCE	
N/A	Paracelis

Source: DILG-CAR

According to DILG, the other contenders from CAR that did not receive the award have difficulty complying with some of the requirements of the SGLG particularly on the compliance to the Accessibility Law –

an indicator which may be difficult to attain due to the lack of LGU funding as well as limitations in construction space due to the region's mountainous terrain.

## Development Finance and Fiscal Management

**Most municipalities in CAR belong to the 4<sup>th</sup> – 6<sup>th</sup> income class; they are relatively dependent on the Internal Revenue Allotment (IRA) whilst the region receives the least share in the country.** According to the Philippine Statistics Authority (PSA), of the 76 municipalities in CAR, 56 or 75 percent belong to the 4<sup>th</sup> to 6<sup>th</sup> class municipalities

(Table 5.5) with an income ranging from Php35 million to Php84 million per annum - a budget which may be hardly adequate for the annual maintenance of LGU operations and for development purposes. The income classes of the rest of the municipalities ranged from 1<sup>st</sup> to 3<sup>rd</sup> class, with annual incomes from Php78 million to Php191 million.

*Table 5.5 Summary of Income Classification, CAR*

LGU Level	1 <sup>st</sup> Class	2 <sup>nd</sup> Class	3 <sup>rd</sup> Class	4 <sup>th</sup> Class	5 <sup>th</sup> Class	6 <sup>th</sup> Class
Province	0	1	3	2	0	0
City	1				1	
<b>TOTAL</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>
<b>Percent Distribution</b>	<b>12%</b>	<b>12%</b>	<b>38%</b>	<b>26%</b>	<b>12%</b>	<b>0</b>
<b>Municipality</b>						
Abra	1	1	0	1	22	2
Apayao	2	2	1	2	0	0
Benguet	4	0	2	5	2	0
Ifugao	0	1	1	7	2	0
Kalinga	1	0	1	4	1	0
Mt. Province	0	2	0	3	5	0
<b>TOTAL</b>	<b>8</b>	<b>6</b>	<b>5</b>	<b>22</b>	<b>32</b>	<b>2</b>
<b>Percent Distribution</b>	<b>10%</b>	<b>8%</b>	<b>7%</b>	<b>29%</b>	<b>43%</b>	<b>3%</b>

Source: PSA, 2016 Regional Social and Economic Trends (CAR)

On IRA dependency, a decline from 90.13 percent in 2011 to 79.41 percent in 2015 was observed among the provinces and cities in the region. In 2015, Baguio City had the lowest IRA dependency rate at 42.76 percent over the course of five years, while Apayao is observed to be highly dependent on its IRA by as much as 94.84 percent (Table 5.6). The lack of business

activities in the area from where taxes may be collected to augment local revenues could be one of the reasons for the high IRA dependency. Data from the Department of Trade and Industry (DTI) revealed that Baguio City registered a total renewal of business establishments of 3,916 in 2016, the highest in the region. In contrast, Apayao renewed some 255

business establishments, the least in the region.

**Table 5.6 Internal Revenue Allotment Dependency Ratio of Provinces and Cities, CAR: 2011-2015**

Provinces/City	2011	2012	2013	2014	2015	Average
Baguio City	44.47	38.92	40.50	46.94	42.97	42.76
Tabuk City	83.84	94.08	94.25	93.90	93.47	91.91
Abra	95.53	91.99	93.26	91.69	86.60	91.81
Apayao	96.51	95.29	95.42	94.52	92.48	94.84
Benguet	76.57	68.47	70.15	70.71	70.67	71.31
Ifugao	89.63	84.71	84.88	85.41	84.05	85.74
Kalinga	93.37	87.80	86.02	84.16	81.47	86.56
Mountain Province	89.15	83.54	85.41	84.85	83.56	85.30
<b>CAR</b>	<b>90.13</b>	<b>85.30</b>	<b>85.86</b>	<b>78.40</b>	<b>79.41</b>	<b>81.28</b>

Source of Basic Data: DBM 5-Years Accomplishment Report

In terms of the total IRA share from the national budget, reports from the Department of Budget and Management (DBM) indicate that the region received an average of three percent of the total national IRA from 2011 to 2015 (Table 5.7). In 2015, CAR got the least IRA at approximately Php12 billion, with Region IV-A receiving the largest share at Php43

billion and Regions I and II getting Php21 billion and Php21 billion, respectively. The major reason for the low allocation for CAR LGUs is its relatively small population – an indicator that does not favor CAR given its unique mountainous topography. It is because of this that CAR remains to be among the least developed regions in the country.

**Table 5.7 Share in National Budget, CAR: 2011-2015**

Share in National Budget, including regular IRA only, excluding unprogrammed and differential IRA	2011	2012	2013	2014	2015
	2.96%	3.08%	3.09%	3.09%	2.81%

Source: DBM 5-Years Accomplishment Report

**The average annual rate in revenue collection continued to grow but it remained to be limited in view of the provision that proceeds from businesses shall accrue to the LGUs where the main offices of the companies are located.** Collections amounted to Php4.879 billion

in 2015 from Php4.335 billion in 2014, or roughly 14 percent increase indicating improved shares for concerned LGUs. All provinces recorded increased tax collection from 2013-2014 also signifying more efficient and effective systems and procedures.



Across LGUs, collection in Baguio remained the highest amounting to Php2.402 billion in 2015, followed by Benguet at Php816.848 million. Also

notable are the improvements in collection in Abra and Ifugao. Across the years, lower collection rates have been noted in Benguet and Mountain Province.

**Table 5.8 Internal Revenue Collection, CAR: 2013-2015**

	2013	2014	2015	Ave. Annual Growth Rate (%)
<b>CAR</b>	<b>3,776,904,071</b>	<b>4,335,323,300</b>	<b>4,879,162,512</b>	<b>13.66</b>
Abra	245,433,752	241,524,406	317,876,777	15.01
Baguio City	1,946,330,060	2,402,617,570	2,402,617,570	11.72
Benguet	782,671,445	878,368,518	816,847,972	2.61
Kalinga-Apayao	402,449,532	393,890,294	456,907,373	6.94
Ifugao	193,097,291	186,262,793	228,170,260	9.48
Mountain Province	206,921,992	232,659,722	217,071,748	2.87

Source: PSA, CAR RSET 2016

With revenue collection having made more efficient at the local levels, the issue on the payment of tax shares to LGUs hosting mining companies, large manufacturing firms, retail chains, and the like need to be studied, since the bulk of corporate income taxes are paid to LGUs where the main offices of firms or businesses are located (i.e., Makati) rather than to LGUs where actual activities and business operations of large manufacturing firms, industries, retail chains are situated.

**There was low utilization of the Public Financial Management Assessment Tool (PFMAT) among LGUs.** Public Financial Management (PFM) is a system of rules, procedures and practices for government

to manage public finances. PFM seeks to address the key challenges of controlling government spending and making agencies operate efficiently and effectively. It drives government policy-makers, managers and implementers to ask: (1) Is government spending within limits; (2) Is it spending on the right things; and (3) Does it obtain best value for money.

The Public Financial Management Assessment Tool (PFMAT) is a self-assessment instrument that measures LGU performance using a five-point scale from 0 to 4. As of 2016, 17 out of 69 LGUs obtained a score of '3' categorized as very good (Table 5.9).

**Table 5.9 Comparative Performance in Public Financial Management Assessment Tool, CAR: 2013-2015**

2013	2014	2015	2016
1 out of 37 LGUs with PFMAT Average Score of at least "3"	3 out of 17 LGUs with PFMAT Average Score of at least "3"	3 out of 29 LGUs with PFMAT Average Score of at least "3"	17 out of 69 LGUs with PFMAT Average Score of at least "3"

Source: DBM Report on the RDP 2011-2017 Results Matrix (RMs)

## Pursuance of Cordillera Regional Autonomy for Effective Governance

The Regional Development Council – Cordillera Administrative Region (RDC-CAR) decided to renew the pursuit of regional autonomy, despite the rejection of the two previous organic acts. A program with three major thrusts, namely: (a) Information, Education and Communication (IEC), (b) Capability Building, and (c) Alliance Building was then implemented. The RDC engaged in IEC activities at the regional, local and grassroots levels. There were four pulse surveys conducted, which revealed the increasing level of awareness and support of the people to regional autonomy. In all four surveys, there were more respondents who remained undecided when asked how they would vote in a plebiscite.

The Regional Autonomy Summit in 2014 resulted in a unified stand among the CAR leaders led by the Governors and the Congressmen, thus influencing the filing of House Bill 4649 in June 2014. The RDC intensified its implementation of the IEC thrust from 2013-2016 and reached a total of 29,751 participants with 191 IEC activities conducted. At the local levels, the RDC continuously conducted the annual

Cordillera Month Celebrations, highlighted by the week-long Unity Gong Relay throughout the region and which have been the leading project in drumming up the support for the advocacy. Grassroots or barangay IEC projects were conducted since 2013, where campaign level picked up in 2015, and 16 municipalities are priority for IEC in response to the repeated request to bring the autonomy advocacy closer to the people.

The RDC ensured that partnerships with various government agencies were further strengthened. The alliances with both government and non-government sectors at the national, regional and local levels were significantly expanded. Major conferences both at the national and regional levels were undertaken, including the following: (a) 1<sup>st</sup> Regional Conference on Cordillera and Bangsamoro Autonomy in June 2015; (b) First National Conference on Cordillera Autonomy in November 2015; and (c) National Roundtable Discussion with NGAs in March 2016, during which affirmative response and constructive suggestions on HB 4649 from

agency central offices like DFA, DBM, PSA, DAR, DENR, CESB, NCCA and other participants were gathered. Inputs from these various consultations and workshops helped in the drafting of a new house bill. The discussion on Cordillera autonomy was also brought to the national level. Likewise, the CAR explored with the

ARMM the commonality and differences in history, culture and political dynamics towards a partnership in information and advocacy. However, the administration of the program on autonomy carried with it the challenges to hurdle audit, hiring and procurement requirements.

## Strategic Framework

### Targets

Core outcome and output indicators that will be monitored to ensure strengthening of development administration,

improvement of development finance and public financial management and the attainment of Cordillera autonomy are presented in Table 5.10.

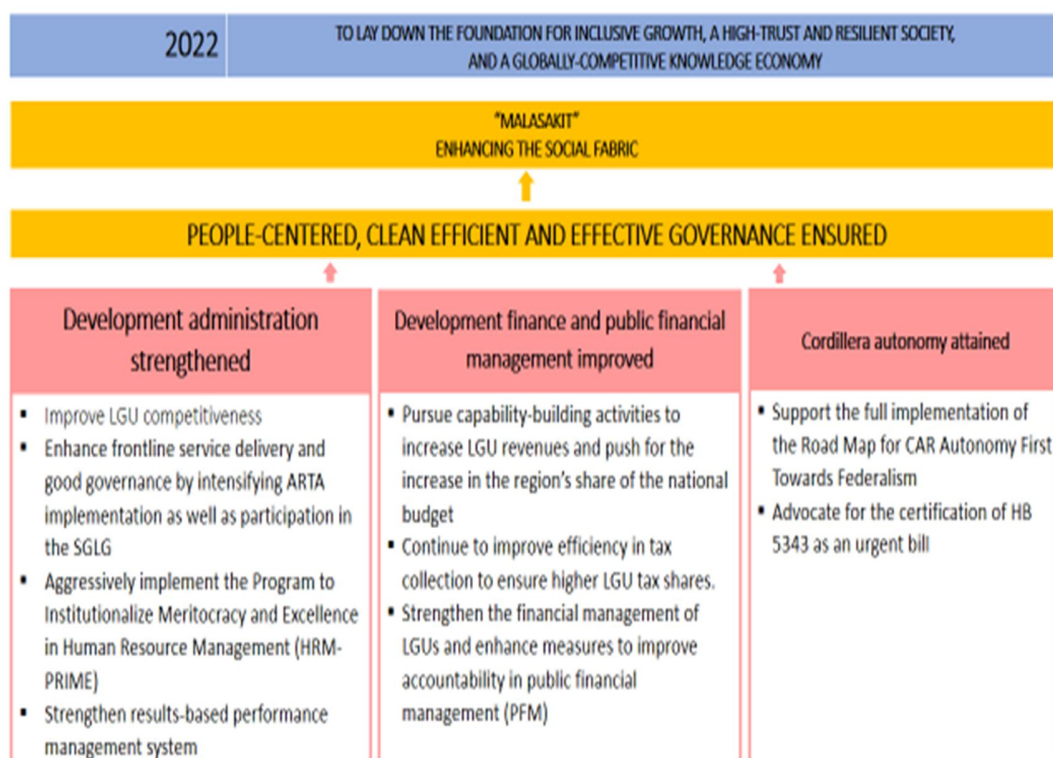
**Table 5.10 Plan Targets to Ensure People-Centered, Clean and Efficient Governance, 2017-2022**

INDICATOR	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	
Sub-sector Outcome 1: Development administration strengthened			
1. Percentage of LGUs who participate in the Cities, Municipalities Competitiveness Index (CMCI)	2016	40%	increased
2. Percentage increase in LGU's capacity, preparedness and responsiveness to disasters, including DRRMO plantilla positions filled-up	2016	90%	improved
3. Percentage of identified service offices surveyed that passed the ARTA-RCS (Excellent, Outstanding, Acceptable ratings)	2013	80%	improved
4. No. of assisted agencies rated as compliant with Meritocracy and Excellence in Human Resource Management (PRIME-HRM) maturity level indicators	2013	53	increased

Sub-sector Outcome 2: Development finance and public financial management improved			
5. Percentage of total actual collections from local taxes and other locally generated revenue sources versus targets	2012	Collection efficiency is > or = 1	increased
6. Percentage of LGUs that underwent trainings on Local Economic Enterprises (LEE) and Public Financial Management (PFM)	2012	60%	increased
Sub-sector Outcome 3: Cordillera autonomy attained			
7. No. of IEC conducted for the adoption of the new Autonomy House Bill (HB 5343)	2016	360	increased
8. No. of Capacity-Building activities conducted	2016	24	increased
9. Pursuit of CAR autonomy	2016	In progress	Attained

## Strategies

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



### Sub-Sector Outcome 1: Development Administration Enhanced

**Improve LGU competitiveness.** The top 20 ranking of four CAR LGUs is already an affirmation that they have what it takes to become competitive. However, more push is needed for local chief executives to go the extra mile of becoming competitive by streamlining their business processes, increasing access to infrastructure facilities by PWDs, improving revenue generation activities, among others.

**Enhance frontline service delivery and good governance by intensifying ARTA implementation as well as expanding participation and number of awardees in the SGLG.** Continue to support good governance practices that are evident in CAR, such as adherence to ARTA as well as SGLG. Push for the updating of CLUPs and making them DRR-enhanced and climate-smart.

**Aggressively implement the Program to Institutionalize Meritocracy and Excellence in Human Resource Management (PRIME-HRM).** PRIME-HRM entails greater engagement of not just the human resource management officer (HRMO), but also the officials and the rank-and-file employees of the agency. The program aims to serve as a search mechanism for best practices in human resource management, and a venue for exchange and development of expertise in the area of human resource management.

**Strengthen results-based performance management system.** Support the implementation of the Strategic Performance Management System (SPMS), a performance-based incentive scheme that integrates personnel and organizational performance in order to reward exemplary civil servants and well-performing institutions.

**Promote participatory governance to reduce corruption.** The engagement of Civil Society Organizations in local special bodies, local project monitoring committees and sectoral representation in LGUs should be documented.

### Sub-Sector Outcome 2: Development Finance and Fiscal Management Improved

**Pursue capability-building activities to increase LGU revenues** The DBM and BLGF, together with concerned stakeholders need to pursue some capacity building activities, such as the local economic enterprise development among LGUs, based on the Manual on the Operation and Setting Up of Local Enterprises.

**Push for the increase in the region's share from the national budget.** Likewise, the IRA criterion on population may also need to be reviewed to consider other equally important factors like poverty incidence, scarcity of infrastructure facilities, etc. Finally, a review of the National Revenue Code possibly to amend pertinent provisions relative to the disposition of proceeds may be undertaken such that tax shares favor LGUs hosting the actual operations of firms and business

activities and not the LGU where the main offices or business centers of firms are located.

**Continue to improve efficiency in tax collection to ensure higher LGU tax shares.** Support the full implementation of the following reforms: (1) Online System for Transfer Tax Transactions (OST) to provide a facility for BIR Officers to review and approve online One-Time Transaction (ONETT) Taxpayers' eBIR forms; and (2) Run After Tax Evaders (RATE) to identify and prosecute high profile tax evaders.

**Strengthen the financial management of LGUs and enhance measures to improve accountability in public financial management (PFM).** LGUs may need to formulate policies to fully operationalize all the elements of an open and orderly PFM system, and implement PFM Improvement Plans. Capacitation of LGUs must also be urgently carried-out to fully utilize their corporate powers to generate more income. Finally, a judicious link between planning-investment programming-monitoring and evaluation should also be strengthened.

### Sub-Sector Outcome 3: Regional autonomy achieved

**Support the implementation of the Roadmap for Achieving CAR Autonomy First towards Federalism.** The region will be guided by a new roadmap which was adopted in view of the new national government priorities, which included federalism and the lessons from the CAR and ARMM experience. It will continue the advocacy for legislation on Cordillera Autonomy under the unitary government system. Moreover, the region advocates a strong unified position on Charter Change and shift to federal system, but this must provide for asymmetrical federalism and Cordillera must be a separate state.

The region recognizes that federalism provides great promise for a higher degree of Cordillera autonomy. On the other hand, it should engage in the advocacy for an asymmetric form of federalism that preserves and recognizes the uniqueness of our identity, culture and history. It should take the first step to autonomy, which is the approval of an Organic Law, so that it can be in a strong position to push for the Cordillera agenda in the national federalism process.

## Legislative Agenda

**Table 5. 10 Legislative Agenda for Ensuring Citizen-Centered, Clean and Efficient Governance**

Legislative Agenda	Justification
Pass the bill on Cordillera regional autonomy	Address the region's uniqueness in terms of its culture, topography, vulnerability to disasters as well as scarcity of infrastructure facilities and services to ensure progress in the region.
Amendment to the National Revenue Code, Local Government Code	<p>Review and amend the Internal Revenue Allocation criteria to favor LGUs belonging to the low income bracket and those with inadequate basic infrastructures services.</p> <p>Review provisions of the National Revenue Code on the disposition of tax proceeds such that the LGU where actual economic activities are located be provided the bigger tax share instead of the LGUs hosting the main offices of firms, retail chains, etc.</p> <p>Review the provisions of the Local Government Code on the National Wealth Taxes such that these are directly paid to the host communities and not to where central business operations are located.</p>
Amendment to the EPIRA Law, the Indigenous Peoples Rights Act (IPRA), the Renewable Energy Act, the Local Government Code	Harmonize the definition of host communities and their benefits relative to energy development





06

Pursuing Swift and  
Fair Administration  
of Justice



# Pursuing Swift and Fair Administration of Justice

Swift and fair administration of justice is a crucial element in enhancing the social fabric. This is an essential requisite for people to trust the government. It serves as a deterrent to those intending to violate the law, provides recompense and closure to the victims, and gives opportunities to those convicted to make amends and redeem themselves back to society. Under the Philippine Development Plan (PDP) 2017-2022, the traditional institutions-based method of justice administration will be shifted to a more sector-based approach. It highlights coordination among the justice sector institutions, agencies and actors to ensure a swift and fair administration of justice.

The five pillars of the criminal justice system in the Philippines are law enforcement, prosecution, the courts, the penal system and the community. The five pillars represent many different facets of the legal system and society. Law enforcement, which is directed at upholding social control to deter or mitigate crime, is implemented through investigation, apprehension and detention of suspected criminals. The prosecution process starts the moment a case is filed against a suspected criminal -- and is done through a preliminary investigation where the public prosecutor evaluates the findings of the police or the evidence submitted. The courts - including all levels from Municipal and Regional Trial Courts

to the Supreme Court - activate the judicial process when probable cause is established, and the public prosecutor files the corresponding information in the proper court. Once tried and convicted, the person liable is imprisoned and penalized. Corrections may come in the form of isolation of the convicts by imprisonment for the periods laid down by the courts. After the convicts have passed through the correction component, they go back to the community -- either to lead normal lives as law-abiding citizens in their barangays, or possibly commit other crimes and thus go back through the same processes and stages of the Philippine criminal justice system.

## Assessment and Challenges

While there is speedy disposition of cases in the Department of Justice (DOJ) - Baguio City, the same cannot be said of other areas in CAR due to the lack of information/statistics and the absence of a DOJ - National Prosecution

Services and the State Counsels (DOJ-NAPROSS) Regional Office. Even with the establishment of CAR as a special region in 1987, it still does not have its own DOJ Regional Office unlike the rest of the regions in the country.

The City Prosecutors Office (CPO) of Baguio City reported a 99.9 percent disposition rate of Preliminary Investigation and a 100 percent disposition rate of Inquest Proceedings in 2015. The CPO-Baguio City had 3,011 complaints for disposition. Of this number, 75 percent were filed in court, 21 percent were dismissed, 3 percent were referred to other agencies with pertinent jurisdiction, while less than 1 percent was pending.

**There is a need to declog the courts due to the reported flooding of cases.** The uneven ratio between judges and caseloads (standard is 1:500) in which filed cases outnumber the cases resolved in normal operations, contributed to the piling-up of cases and case hearing delays. This further

supports the need to enhance the Alternative Dispute Resolution (ADR) system, and to explore the indigenous ways of settling disputes. Each of the Regional Trial Courts ( RTCs) can effectively handle an average of 500 cases per month. However, the Baguio City RTC reported that there is flooding of criminal and civil cases, averaging 800 per month in 2016. The number of civil cases and other special proceedings (i.e., adoption, annulment, land registration cases, etc.) are more than double the criminal cases filed in the RTC. However, the records of the Office of the Clerk of Court (OCC) only listed the number of criminal cases filed in RTC-CAR, but civil cases and other special proceedings are not included as shown in Table 6.1.

**Table 6.1 Criminal Cases Pending in 8 Regional Trial Court Branches, CAR: 2016**

Particulars	Total Criminal Cases Filed - Beginning Balance (Jan. 2016)	Total Criminal Cases Pending- Ending Balance (Dec. 2016)
Branch 3	415	261
Branch 4	84	61
Branch 5	286	209
Branch 6	242	118
Branch 7	331	273
Branch 59	316	339
Branch 60	108	139
Branch 61	173	173
<b>TOTAL</b>	<b>1,955</b>	<b>1,573</b>

Source: Regional Trial Court, Office of the Clerk of Court (OCC), Baguio City

**Alternative Dispute Resolution (ADR) in settling disputes to unburden the courts are available but not maximized.** Consistent with one of the objectives of the Action Program for Judicial Reform (APJR) particularly the decongestion of court dockets and the enhancement of access to justice by the poor, the Supreme Court, in a resolution dated October 16, 2001, (A.M. No. 01-10-5-SC-PHILJA),

designated the Philippine Judicial Academy (PHILJA) as its component unit for court-referred, court-related mediation cases, and other forms of ADR mechanisms and established the Philippine Mediation Center (PMC). However, the PMC in Baguio City is relatively unknown. This is aside from the fact that the PMC is limited to cover only cases such as estafa and theft.

There are alternative indigenous political institutions in CAR that can help settle conflicts such as boundary disputes, inheritance cases, marriage conflicts and similar civil cases. The *tongtong*, an important Ibaloi decision-making body makes the *tongtong* council of each feuding sitio or village meet to settle their differences. The decision made by the *tongtong* have traditionally the force of law. The old men of Kankana-eyes in Mankayan constitute the *agom* (jury) whose duty is to adjudicate differences of people in the community. The decision of the *agom* is final and irrevocable, and not one of the offended parties can make any appeal. In Bontok communities, the elders gathered together as *ili* try cases involving community members and impose fine based on precedents, and may amend custom law as they see fit. For the Ifugao, the *monkalun* is a whole court completely equipped. He is the judge, prosecuting and defending council, and the court record.

**Other alternative ways to settle the cases out of court, such as the Lupong Tagapamayapa (LT) is available.** In order to reduce the load of the lower courts, local committees of citizens called Pacification Committees (Lupon Tagapamayapa) have been organized to effect extrajudicial settlement of minor cases between barangay residents. In each lupon (committee) there is a Conciliation Body (Pangkat Tagapagkasundo), the main function of which is to bring opposing parties together and effect amicable settlement of differences. The committee cannot impose punishment, but otherwise its decisions are binding.

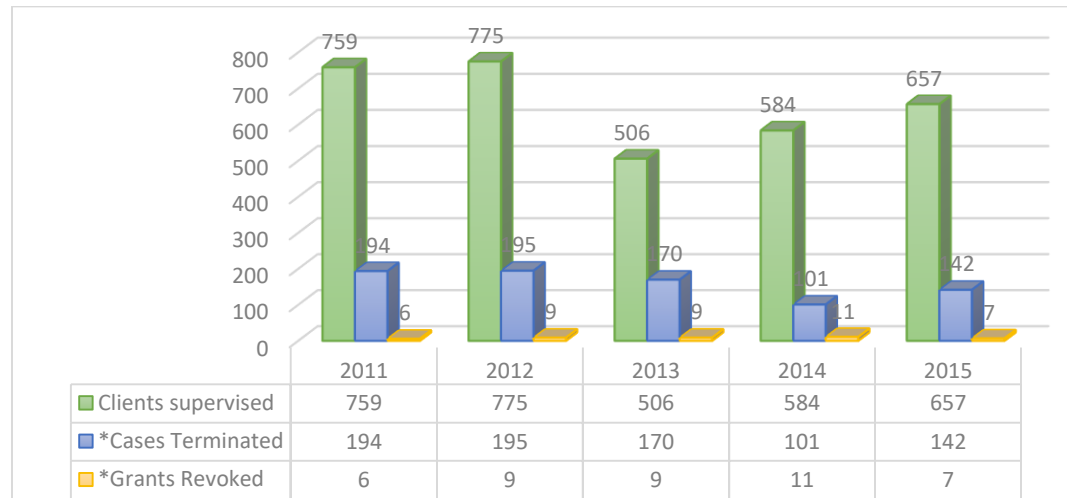
Limited resources of Parole and Probation Administration (PPA-CAR) vis-à-vis its programs hinder the delivery of services. The PPA is responsible for providing a less costly alternative to imprisonment of first-time offenders who are likely to respond to individualized community-based treatment programs. However, lack of manpower is hindering the PPA-CAR from assisting in the rehabilitation of drug offenders and in the decongestion of local jails and penal institutions.

With the region's numerous concerns of parolees and probationers, the PPA-CAR is challenged by limited human and financial resources in fulfilling its mandate in the implementation of policies, plans and programs to promote the well-being of first-time offenders. Specifically, the PPA's community-based Volunteer Probation Aide Program (VPA), which generates citizen participation to assist the probation officers in the supervision of clients in monitoring their reformation and rehabilitation, is lacking in manpower.

In 2015, PPA-CAR is staffed with 16 probation officers (2 males, 14 females), handling 657 supervision caseloads, with a ratio of 1:41. The standard caseload for a probation officer is 1:25. Figure 6.1 shows that the number of clients supervised by the PPA was highest in 2012 at 775 and lowest in 2013 at 506. Terminated cases are those in which the clients have served their parole/probation and have returned to the community, notably highest in 2012. Revoked cases are when a client has committed and been convicted of another offense (recidivist) or has violated his terms and condition, notably highest in

2014. The limited resources of PPA limit its capacity to monitor the grant and status of cases of probationers and parolees.

**Figure 6.1 Parole and Probation Administration Clients Supervised and Status of Cases/Grants, CAR: 2011-2015**



Source: PSA, 2016 Regional and Social Economic Trend (RSET)

**There is an increasing trend in jail population.** In 2011, the population of jails in the six provinces, including Baguio City is 833. After a 5-year period, it increased to 1,432. The table below shows the number of inmates in both periods, disaggregated by sex. There is a clamor from the Bureau of Jail Management and

Penology (BJMP) for the building of more jails, and for the streamlining of jail management under one entity, which currently is dispersed among four entities, namely: the DOJ's Bureau of Correction, the BJMP, the provincial governments' Provincial Jails, and the Department of Social Welfare and Development's jails for juvenile delinquents.

*Table 6.2 Number of Jail Inmates by Sex, CAR: 2016*

Location of Jail	Sentenced				TOTAL	Detained				TOTAL
	Adult		Minor			Adult		Minor		
	Male	Female	Male	Female		Male	Female	Male	Female	
Abra	17	0	1	0	18	30	1	0	0	31
Apayao	45	1	1	0	47	80	0	0	0	80
Baguio City	410	65	7	3	485	543	115	9	1	668
Benguet	85	12	3	2	102	164	49	5	0	218
Ifugao	85	2	1	0	88	193	4	3	0	200
Kalinga	53	2	0	0	55	167	13	0	0	180
Mountain Province	35	2	1	0	38	52	2	1	0	55
TOTAL	730	84	14	5	833	1,229	184	18	1	1,432

Source: BJMP

## Strategic Framework

### Targets

Core outcome and output indicators that will be monitored to ensure swift and fair administration of justice, such that access to the five pillars of the criminal justice system is enhanced and to see to it that the sectors' efficiency and accountability is improved, are shown in Table 6.3.

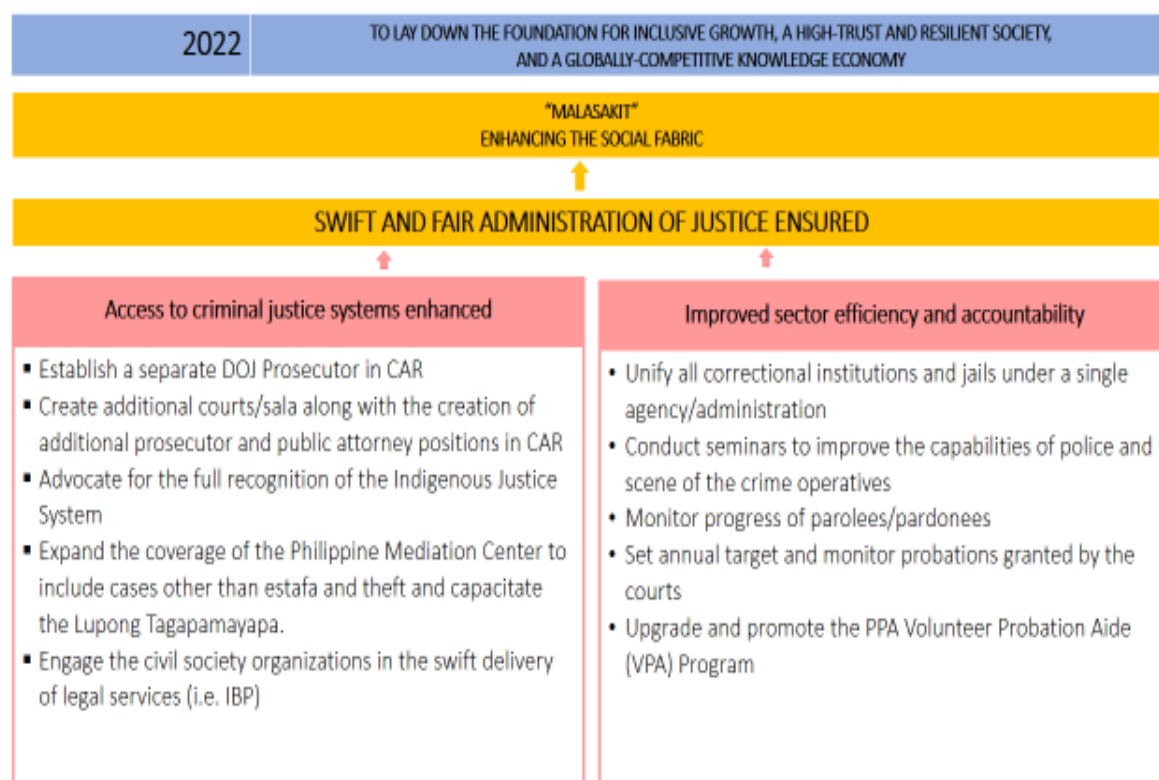
*Table 6.3 Plan Targets to Ensure Swift and Fair Administration of Justice, 2017-2022*

INDICATOR		BASELINE		END OF PLAN TARGET
		YEAR	VALUE	
Sub-sector Outcome 1: Access to Criminal Justice Systems Enhanced				
1.	Establishment of Regional Prosecutors’ Office in CAR	2016	None	1
2.	Advocacy work and documentation for the recognition of Indigenous Justice System	2016	None	6
3.	Cases resolved through the PMC and capacity development for Lupong Tagapamayapa	2016	Unknown	increasing
4.	MOA between DOJ and IBP-Benguet Chapter for the swift delivery of legal services	2016	None	1

Sub-sector Outcome 2: Improved sector efficiency and accountability				
5.	Seminars conducted to improve the capabilities of police and scene of the crime operatives	2016	Unknown	increasing
6.	System to monitor the progress of parolees/pardonees established	2016	Unknown	2
7.	Annual parolees and probations target are set and probations granted by the courts are monitored	2016	Unknown	increasing
8.	The PPA rehabilitation program is upgraded and promoted	2016	Unknown	increasing

## Strategies

*Figure 6.2 Strategic Framework for Ensuring Swift and Fair Administration of Justice*





### **Sub-Sector Outcome 1: Access to civil and criminal justice enhanced**

**Advocate for the creation of a separate CAR Regional Prosecutors Office to facilitate the prosecution of cases, i.e. preliminary investigation and inquest proceedings.** Once a Regional Prosecutors' Office is created, there is also a need for additional salas, judges and prosecutors in order to significantly declog the courts.

**Conduct advocacy work for the full recognition of Indigenous Justice Systems.** The Cordillera Region, through the NCIP, shall submit to the Supreme Court, a full documentation of the cases resolved through the Indigenous Justice Systems (Bodong in Kalinga, Tongtong in Ibaloy, Agom in Kankana-ey, Ili in Bontok and Mankalun in Ifugao) for the integration of results in the Philippine Jurisprudence.

**Expand the coverage of the Philippine Mediation Center (PMC) to include cases other than estafa and theft and to capacitate the Lupong Tagapamayapa.** Tap and strengthen alternative dispute settlement methods, and promote PMC services in the region. The DOJ may expand the coverage of the PMC to include other minor cases, such as unjust vexation, oral defamation and slight physical injuries. Respected citizens in the barangays volunteer for Lupong Tagapamayapa (LT). However, most of the LTs need to be updated on the current jurisprudence. Thus, there is a need to provide continuous education to the LT members.

**Engage civil society organizations (CSOs) in the swift delivery of legal services.** Legal services should be rendered within 15 working days from receipt of request. Due to the inadequate number of public attorneys, cases pile up in courts. The DOJ shall engage the Integrated Bar of the Philippines (IBP) and strengthen its legal aid program. A Memorandum of Agreement (MOA) shall be executed between the DOJ and the IBP-Benguet Chapter.

### **Sub-Sector Outcome B: Improved sector efficiency and accountability**

**Advocate for the unification of all correctional institutions and jails under a single agency/administration.** There is a proposal among the justice sector to unify four entities working in jail management and penology (i.e. BJMP, DOJ-BuCor, DSWD and Provincial Government), since its fragmented administration is hampering the efficiency of these institutions.

**Conduct seminars to improve the capabilities of police and scene of the crime operatives.** It was noted that majority of the cases filed with the DOJ were dismissed due to the inability of the police to establish probable cause.

**Establish a system to monitor the progress of parolees/pardonees.** PPA shall establish a Quarterly Parolee/Pardonee Compliance Monitoring and develop Recidivist Monitoring System, to come up with comprehensive data on its programs.

Set annual target and monitor probations granted by the courts. At the end of each year, the PPA shall set its probation target, and the same shall be forwarded to the appropriate courts. It shall monitor the granting of parole and probation in order to decongest the jails and prisons and increase the chances of reformation of persons convicted of crimes.

Upgrade and promote the PPA rehabilitation program. Livelihood, welfare and social development programs for probationers and parolees shall be upgraded. To gain more support for the Volunteer Probation Aide (VPA) Program, PPA shall take more decisive steps to promote community involvement. The annual budget of PPA shall be increased to facilitate the upgrading and promotion of its rehabilitation program.

## Legislative Agenda

*Table 6.4 Legislative Agenda for Ensuring Swift and Fair Administration of Justice*

Legislative Agenda	Rationale
Establishment of a separate DOJ Prosecutor Office in CAR  Creation of additional courts/sala in CAR and the creation of additional prosecutors and public attorney positions	Restudy the distribution of courts under BP Blg. 129, the Judiciary Reorganization Act, in relation to the population per proposed court location, historical volume of filings, and the existing dockets of the courts in that particular location. Where necessary, the existing courts may be redistributed and new courts created as needed. It is also more practical to vest the Supreme Court with the power to assign and reassign judges to address inequalities in case distribution.
Unification of all correctional institutions and jails under a single agency/administration	Craft clear policy to ease coordination among the agencies and lower the budget necessary to manage the jails and penologies.
Expansion of the coverage of the Philippine Mediation Center (PMC) to include cases other than estafa and theft	Craft clear policy to delegate minor cases such as unjust vexation, oral defamation, physical injuries, etc. to PMC in order to help in declogging the jails.

# 07 Promoting Philippine Culture and Values



## Chapter 7

# Promoting Philippine Culture and Values

The CAR Regional Development Plan (RDP) supports the Philippine Development Plan's (PDP) emphasis on the role of culture and values in enhancing social cohesion, inclusion and equity. This is aligned to the region's aim to preserve its unique culture and heritage even as it pursues development. The CAR strives for "cultural integrity" which entails instilling pride in one's heritage and identity.

The right to cultural integrity is embodied in the Indigenous Peoples' Rights Act (IPRA) or Republic Act 8371 which refers to the protection of: indigenous culture, traditions and institutions; religious, cultural sites and ceremonies; indigenous sacred places; and indigenous knowledge systems and practices. It also involves: the promotion of the right to establish and control educational and learning systems; recognition of cultural diversity; right to name, identity and history; community intellectual property rights; right to indigenous spiritual beliefs and traditions; and right to science and technology.

## Assessment and Challenges

Currently, the National Commission on Indigenous Peoples (NCIP)-CAR formally recognizes 12 major ethnolinguistic groups in the region. These are the Applai, Balangao (sometimes known as Baliwon) and Bontok of Mountain Province; Kankanaey of Benguet and boundaries of Bauko, Mountain Province; Iwak (sometimes known as Iowak, Owak), Karao, and Ibaloy of Benguet; Kalanguya of some municipalities of Benguet and Ifugao; Ifugao of Ifugao; Isnag (sometimes known as Isnag or Apayao) of Apayao; Kalinga of Kalinga; and Tingguian (sometimes known as Itneg) of Abra.

According to the special report on ethnicity (Table 7.1) done by the Philippine Statistics Authority-CAR (PSA-CAR) based on the 2010 Census of Population and Housing, 25.28 percent of the regional population in 2010 were Ilocanos, a non-indigenous ethnic group, who are commonly in Abra, Apayao and Baguio City. Even so, the region's population is still dominated by indigenous people belonging to indigenous ethnic groups. Among these indigenous ethnic groups, Kankanaeys make up 17.14 percent of the regional population in 2010. Kankanaeys are most common in Benguet and Mountain Province.

**Table 7.1 Household Population by Ethnicity and Sex, CAR: 2010**

TOP 20 ETHNIC GROUPS	HOUSEHOLD POPULATION	MALE	FEMALE	PERCENTAGE TO HOUSEHOLD POPULATION
<b>CAR</b>	<b>1,611,669</b>	<b>821,042</b>	<b>790,627</b>	<b>100</b>
Ilocano	407,370	207,930	199,440	25.28
Kankanaey	276,195	140,756	135,439	17.14
Kalinga	150,808	77,359	73,449	9.36
Ibaloi/Ibaloy	145,010	73,783	71,227	9.00
Tuwali	70,555	35,723	34,832	4.38
Applai	64,271	32,624	31,647	3.99
Bontok	51,330	26,222	25,108	3.18
Tagalog	49,925	24,364	25,561	3.10
Ayangan	45,892	23,850	22,042	2.85
Kalanguya	38,896	20,030	18,866	2.41
Isneg/Isnag/Apayao	37,399	19,349	18,050	2.32
Pangasinan/Panggalato	35,707	17,824	17,883	2.22
Itneg/Tingguian	26,625	13,375	13,250	1.65
Ifugao	24,206	12,210	11,996	1.50
Henanga	16,000	8,174	7,826	0.99
Balangao	15,681	8,138	7,543	0.97
Maeng	14,022	7,314	6,708	0.87
Other Local Ethnicity	12,677	6,415	6,262	0.79
Bisaya/Binisaya	11,907	5,381	6,526	0.74
Other Ethnic Groups*	117,193	60,221	56,972	7.27

\*Total of Other Ethnic Classifications with household population less than 10,000

Source: PSA

**The education sector instituted several reforms to promote cultural awareness and appreciation.** These reforms aim to make the learner's own culture and heritage as his/her foundation to learning about the wider national and global community.

Key reforms towards localizing the education system include the Kto12 program and the Indigenous Peoples Education (IPEd) Program. The IPEd is the Department of Education's response to the right of indigenous peoples (IP) to basic education that is responsive to their context, respects their identities, and promotes the value of their indigenous knowledge, skills, and other aspects of their cultural heritage.

The following statement which served as an input in the formulation of the Regional Policy Directions for IP Education shows that IP Education in CAR emphasizes the inculcation of cultural awareness and sensitivity of the nation's cultural diversity.

*"IP Education in CAR . . . promotes self-determination in the context of contributing to the growth of the Philippine nation. It also is culturally-inclusive, recognizing that CAR and the nation as a whole is of diverse cultures ("This is Home" by DepEd-CAR, 2015).*

It is towards this end that regional frameworks for the implementation of the IPed were developed. These include the Regional IPed Policy Framework, Regional IP Education Curriculum and the Regional IPed Roadmap.

CAR was also included in the pioneering group of five implementing regions of the Learning Resource Management and Development System (LRMDS). This is due to its potential to contribute indigenized education resources and suggestions on how to make the LRMDS culture-sensitive and responsive to IP learners. To date, 60 contextualized materials are already available in the LRMDS.

Some IPed activities are funded under the Philippines' Response to Indigenous Peoples' and Muslim Education (PRIME) Program. The PRIME is a grant facility funded by the Australian Government to allow the DepEd to improve equitable access to and quality of basic education for girls and boys of the disadvantaged IP and Muslim communities.

For culture-sensitive higher education, initiatives include the Re-Tooling Seminar for College Instructors on Culture-based CHED General Education Core Curriculum.

**Apart from formal education reforms, the National Commission on Culture and the Arts (NCCA) in partnership with local partners established Schools of Living Traditions (SLTs) in the region.** A School of Living Traditions (SLT) is one where a living master/culture bearer or culture specialist teaches skills and techniques of doing a traditional art or craft. The mode of teaching is usually non-formal, oral and with practical demonstrations.

From 2010 to 2014, 43 SLTs were established in the region benefitting a total of 1,286 learners of various traditional arts and crafts. The learners from the 43 SLTs were able to produce 469 creative original works. Enhanced SLTs started in 2015 where instead of a year, SLTs now have a five-year plan. CAR has one of these enhanced SLTs in Benguet which is a project under Ibaloy-Kankanaey cluster that is dedicated to textile weaving.

**Documentation of Indigenous Knowledge Systems and Practices (IKSPs) is crucial to the preservation and integration of these into policies and programs.** Achievements include the growing number of IKSP documents and researches with the help of the academe. However, there is lack of data on how these documentations are accessed, utilized and integrated in plans and policies.

**Climate change and human induced risks to the environment require mechanisms to mitigate their impact on communities, tangible heritage, and biodiversity.** The region, with its rich culture and history, has many cultural heritage sites. However, endangering these cultural heritage sites include changes in the lifestyles and knowledge system among the younger generations leading to changes in their valuing of heritage, economic activities that impinge on these sites, illegal activities, and lack of preservation mechanisms. Mass tourism also posed challenges to indigenous communities with the “commercialization” of festivals and indigenous culture.

Recognizing the need to balance development with environmental and cultural integrity, the Regional Development Council adopted the Declaration of Principles on Environmental Governance (DPEG) for the CAR in 2014. The document acknowledges that environment is intricately linked to the culture of indigenous peoples in the region and thus set policy directions in environmental management for various stakeholders to pursue.

Other initiatives include the creation of offices that will handle culture-related affairs. In Ifugao, the provincial government formed the Ifugao Rice Terraces and Cultural Heritage Office to facilitate preservation programs for the rice paddies. The Rice Terraces of the Philippine Cordilleras is one among the eight World Heritage Sites in the Philippines identified by UNESCO. A

Master Plan for the Ifugao Rice Terraces was also formulated to define major programs and processes that promotes both the sufficient income of rice farmers and preservation of the rice terraces.

The municipality of Kabayan, Benguet also partnered with the National Museum to provide its visitors cultural education. Literature and artifacts preserved at the branch of the National Museum in the town allow visitors to understand the ancient practice of preserving the dead – the process of mummification.

**Governance and institutional challenges lead to weak implementation of existing legislations towards the protection and preservation of cultural heritage.** ICCs/IPs often complain of violations of their culture and sacred sites which are often exploited for commercial gain but violators are not held accountable.

Lead agencies for cultural promotion and preservation (NCCA and CCP) do not have regional offices. LGUs who are supposed to lead efforts in the local level prioritize development and modernity over conservation of cultural assets. There is also the lack of a Heritage Preservation Framework that could guide the preservation of cultural heritage sites.

With the region dominated by IPs and with their numerous concerns, the NCIP-CAR is challenged by limited human and financial resources in fulfilling its mandate as the primary government agency for the formulation and implementation of policies, plans and programs to promote and protect the rights and well-being of



the IPs and their ancestral domains. One issue is the limited number of NCIP staff with background on anthropology and sociology which are crucial to understanding and studying interventions in cultural communities and indigenous peoples.

**Mechanisms to promote culture-sensitive governance exists but are not fully implemented.** The Regional Development Council (RDC) of the Cordillera Administrative Region created a Sectoral Committee on Indigenous Peoples Concerns (CIPC) in 2003 tasked to tackle issues and concerns of IPs in the region.

Another governance mechanism to promote participation and representation of indigenous people in local governance is the Mandatory Representation of Indigenous Peoples in Local Legislative Councils (IPMRs). As of 2016, there were 226 IPMRs in the region, four of which are provincial IPMRs (67% of 6 provinces), 43 are municipal IPMRs (57% of 75 municipalities) and 179 are barangay IPMRs (15% of 1,217 barangays in the region). Many of the LGUs still do not have a representative in their local councils and even if some LGUs have IPMRs, many are not receiving full compensation as regular members of the Local Council.

Promoting Land Tenure Security through the issuance of Certificate of Ancestral Domain/Land Title (CADTs/CALTs) is one of the major programs of the NCIP. One CADT application was approved from 2011 to 2015. This is the CADT application of the Ancestral Domain of Kadaclan, Barlig, Mountain Province. The

ancestral domain (AD) covers an area of 9,027.5370 hectares covering five barangays, four in the town of Barlig namely Chupac, Kaleo, Lunas, and Og-og and one in the town of Natonin namely Banao. The AD has a total population of 2,532 IPs. Four CALTs in Baguio City were also approved in 2012. However, due to anomalous issuances of CALTs, a nationwide moratorium was issued by the NCIP.

Crucial to land tenure security in the ancestral domains is the approval of the Implementing Rules and Regulations (IRR) of Section 12 of the IPRA which provides that individual members of Indigenous Cultural Communities (ICCs) or the Indigenous Peoples (IPs) shall have the option to secure title to their ancestral lands under the provisions of the Commonwealth Act as amended or the Land Registration Act 496. This provision shall be effective for twenty years from the approval of IPRA in 1997 or until October 2017. In 2015, the Congressional House Committee on ICCs and IPs ordered the NCIP and the DENR to issue the joint IRR. However, Central offices of NCIP and DENR have yet to favorably act on the draft IRR.

Indigenous communities are also tasked to prepare their Ancestral Domains Sustainable Development and Protection Plan (ADSDPP). The ADSDPP refers to the consolidation of the plans of ICCs/IPs within an ancestral domain for the sustainable management and development of their land and natural resources as well as the development of human and cultural resources based on their indigenous knowledge, systems and practices.

However, the ADSDPPs are not complete, formulation is very slow and very few are mainstreamed in plans and priority projects of regional line agencies (RLAs) and LGUs. Capacities of Indigenous Peoples' Organizations (IPOs) and LGUs in mapping is one factor that contributes to the slow formulation of ADSDPPs.

Of the 111 ancestral domains in CAR, only 23 have updated ADSDPP, 21 have expired or obsolete ADSDPPs, and 67 ancestral domains are still without ADSDPP as of 2015. From 2011-2016, 16 ADSDPPs were formulated for the ancestral domains as shown in Table 7.2.

**Table 7.2 ADSDPPs Formulated, CAR: 2012-2016**

2012	2013	2014	2015	2016
1) Sabangan 2) Mujukayong	3) Central Barlig 4) Kadaclan	5) Lias 6) Ingahan 7) Bucloc 8) Tubo 9) Licuan-Baay 10) Bayyo	11) Dacalan 12) Mangali 13) Sumadel 14) Guinaang 15) Boliney 16) Asipulo	17) Muyadan 18) ADCEL

Source: NCIP-CAR

Through the Free, Prior and Informed Consent (FPIC) Process, the ICCs/IPs are empowered to determine and decide priorities for development affecting their lives, beliefs, institutions, spiritual wellbeing, and the lands they own, occupy or use. It is through the FPIC process that IPs can participate in the formulation, implementation and evaluation of policies, plans and programs for national, regional and local development directly affecting them.

Thirteen FPIC process applications were acted upon in 2015 rendering a total of 129 FPIC process applications acted upon from 2011 to 2015. Projects that have undergone the FPIC process are given Certificate Preconditions (CP) while projects outside the ancestral domain are given Certification of Non-Overlap (CNO) with ancestral domains. From

2011-2015, the NCIP was able to issue 37 CPs and 15 CNOs.

**Efforts towards advancing culture and arts in the region exists and should be sustained.** According to the NCAA, there are two Gawad sa Manlilikha ng Bayan (GAMABA) Awardees from the region. Alonzo Saclag who is a musician and dancer from Lubuagan, Kalinga was awarded in 2000 and Teofilo Garcia, a casque maker from San Quintin, Abra was awarded in 2012. To further advance creativity and artistic development as well as culture and national identity, the NCAA approved 26 projects to be implemented in the region in 2017.

Nine higher education institutes (HEIs) in the region have institutionalized Culture and Arts Program. These culture and arts programs provides opportunities for deeper cultural understanding, revival of indigenous music, dances, songs and

preservation of artifacts and material culture of the Cordillera. Thus, these cultural and arts centers in HEIs are where

cultural heritage is preserved and perpetuated.

## Strategic Framework

The government in partnership with other stakeholders will increase the level of cultural awareness, inculcate values for the common good, cultivate creativity, and

amplify national pride among Filipinos. The region will contribute to this by promoting Cordillera and Philippine culture and values.

## Targets

Core outcome and output indicators that will be monitored to ensure progress toward increasing the level of cultural awareness, inculcating values for the

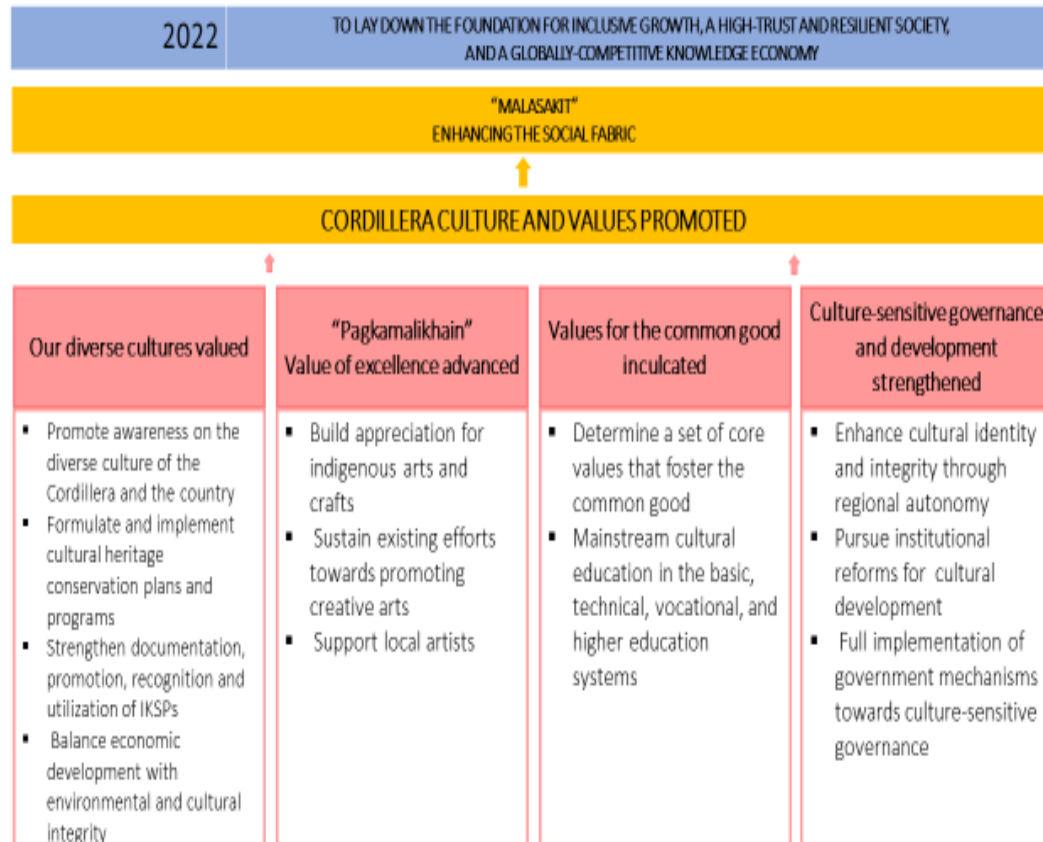
common good, cultivating creativity, and strengthening culture-sensitive governance and development are presented in Table 7.3.

*Table 7.3 Plan Targets to Promote Philippine Culture and Values, 2017-2022*

INDICATOR	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	
Sub-sector Outcome 1: Our Diverse Cultures Valued			
No. of SLTs sustained	2016	1 enhanced SLT	increased
No. of learners/ completers in SLTs	2010-2014	1,286	increased
Sub-sector Outcome 2: "Pagkamalikhain" Value of Creative Excellence Advanced			
Increased number of artists	2016	2 GAMABA Awardee	increased
Sub-sector Outcome 3: Values for the Common Good Inculcated			
No. of contextualized learning materials increased	2016	60	630 (cumulative)
Sub-sector Outcome 4: Culture-sensitive governance and development strengthened			
No. of LGUs with Local Council for Culture and Arts	2016	16	increased
No. of ordinances and local issuances for the conservation of cultural heritage sites	2016	11	increased

## Strategies

**Figure 7.1 Strategic Framework to Promote Philippine Culture and Values, 2017-2022**



### Subsector Outcome 1: Our diverse cultures valued

Awareness on the diverse culture in the region and in the country is necessary for one to value culture, preserve it and to integrate it into plans for regional and national development. With the fast changes in the lifestyle and culture of Cordillera communities due to modernization, there is then the need to strengthen documentation and integration of Indigenous Knowledge Systems and Practices (IKSPs) in developmental plans and activities.

### Promote awareness on the diverse culture of the region and the nation.

Localizing and contextualizing education through the IP Education Program of the DepEd should be successfully implemented. This should be complemented by non-formal cultural education in the "ili" or communities.

**More schools of living traditions should be established and sustained** so as to ensure the passing on of indigenous cultural knowledge and skills from the elders to the younger generation.

**Formulate and implement cultural heritage conservation plans and programs.** There is the need to formulate a Cultural Heritage Preservation Framework to guide the preservation of the rich and diverse cultural heritage of the region. The implementation of such plan will also help mitigate the impacts of climate change and other natural risks as well as human-induced degradation to culture and heritage sites in the region.

**Establish formal linkages with technology and resource institutions** such as locally established knowledge of Cordillera Culture and Heritage, e.g. Cordillera Studies Center, CARIANA (Benguet State University's database of indigenous knowledge in the Cordillera), Ifugao Rice Terraces and Cultural Heritage Office, National Museum in Kabayan, Benguet as well as national institutions to accelerate capacity building and resource build-up of Cordillera culture and heritage.

**Strengthen documentation, promotion, recognition and utilization of Indigenous Knowledge Systems and Practices.** A registry of IKSPs that can be accessed by different institutions and has access monitoring mechanism can be established. HEIs already have existing collections of IKSP documents and researches such as the CARIANA-Association of Librarians in the region based in Benguet State University (BSU).

**Balance economic development with environmental and cultural integrity.** To minimize adverse effects of tourism to indigenous communities and their culture, there is the need for communities and LGUs to agree on tourism activities

that strike a balance between the benefits derived from tourism and maintaining environmental and cultural integrity. First, communities should achieve consensus as to the specific areas, rituals, and ceremonies that can be opened for appreciation and should establish codes of behavior for tourists. LGUs might also need to consider setting limits to tourist traffic in cultural and heritage sites as well as environmentally sensitive areas.

Local governments should also formulate, advocate and strictly implement ordinances for the protection and preservation of culture and heritage sites specially in booming and potential tourism in order to mitigate negative impacts of mass tourism.

## **Subsector Outcome 2: "Pagkamalikhain" Value of Creative Excellence Advanced**

**Build appreciation for indigenous arts and crafts.** Indigenous arts and crafts in the region include indigenous architecture as seen in rice terraces built from mud and stones carved out of the Cordillera mountains, indigenous textiles, sculptures, body adornments such as beads and tattoos. Appreciation for these can be boosted through empowering and supporting local artists, encouraging the production of creative works, supporting their products, and develop the industry. This will provide due recognition to the contribution of the cultural sector, and other stakeholders concerned with heritage and creativity, to the social and economic life of the region and country.

**Sustain existing efforts towards promoting creative arts.** More Schools of Living Traditions (SLTs) and Centers for Culture and Arts should be established. The sustainability of such should also be ensured specially SLTs which are initially funded by NCCA but are turned over to implementing organizations and are not monitored as to their sustainability.

**Support local artists.** The region and the Philippines have many local talents and artists but few can afford to further develop their arts and to pursue the arts industry as a full time profession. This can be addressed through scholarships and through partnerships with organizations of local artists.

### **Subsector Outcome 3: Values for the Common Good Inculcated**

**Determine and promote values that foster the common good.** Each ethnic group and communities or “*ili*” in the region may have their set of belief and value systems but have many common values and principles that are important for social cohesion and inclusive development. A closer look at these value systems of indigenous peoples and communities in the region will reveal that despite the difference in colonial history (resisted Spanish rule), Filipino values such as *malasakit* (roughly translated to compassion or empathy) and *bayanihan* are practiced by IPs in the region as can be seen in their practice of *ub-ubbo/og-ogfo in Mountain Province* (roughly translated as voluntary sharing of work). Such values and practices shall be sustained and adopted in formal institutions.

**Mainstream cultural education in the basic, technical, vocational, and higher education systems.** Promotion of these core values can take advantage of the reform of the basic education system through the Kto12 curriculum and the IPed.

### **Subsector Outcome 4: Culture-sensitive governance and development strengthened**

**Enhance cultural identity and integrity through regional autonomy.** Regional autonomy will enable the regional government to pass measures to preserve our cultural heritage through various programs in education, tourism, agriculture, and environment. While the IPRA provides for the recognition and promotion of the rights of the indigenous peoples, implementation has been a challenge within a centralized governance framework where policies and programs decided in the national level lack consideration of the culture and actual situation of the region.

**Pursue institutional reforms for cultural development.** Offices for cultural concerns shall be created and/or strengthened in regional and local governments such as the local tourism councils. The institutional and human resource capacities of the NCIP shall also be strengthened to effectively fulfill its mandate.

**Full implementation of the IPRA and other mechanisms towards culture-sensitive governance.** ADSDPP formulation, FPIC processes, IPMR system and other governance processes that promote rights of indigenous peoples

and communities shall be fully implemented. ADSDPPs shall be advocated and support to ADSDPP formulation, updating and implementation shall be provided. There is also the need to monitor integration of ADSDPP in local plans by LGUs and government agencies. The

implementation of the IP Mandatory Representative in local councils shall be reviewed and evaluated to identify starting points towards the strengthening of the IPMR system. Strict implementation of the FPIC process shall be ensured in all developmental projects affecting IPs and ICCs.

## Legislative Agenda

*Table 7.3 Legislative Agenda to Promote Philippine Culture and Values*

LEGISLATIVE AGENDA	RATIONALE
Cordillera Regional Autonomy*	Autonomy will enable the regional government to pass measures to preserve and promote cultural heritage in the region
Commemoration of the Indigenous Peoples' Rights Act	Declare a national, non-working holiday for the recognition and promotion of the rights of indigenous peoples
Strengthening the Conservation and Protection of the National Cultural Heritage	Amendment to Heritage Law (RA 10066). Update provisions on jurisdictions.
Establishment of the Department of Culture	Reorganize the National Commission on Culture and the Arts Into the Department of Culture and the Arts, Define its Power and Functions
Establishment of Local Culture and Arts Councils and Allocate Funding similar to the Gender and Development (GAD) Fund or Special Education Fund	Establish offices for culture and arts in LGUs, with a mandate to protect and promote local cultural heritage and arts.
Establishment of an Institute for Cultural Heritage Conservation of the Philippines	In line with the implementation of the Cultural Heritage Law (RA 10066), there is a need to come up with an institute that would offer trainings and workshops on cultural heritage education both for formal, alternative and information education. This is going to be done with emphasis on the protection, conservation, preservation and safeguarding of cultural heritage and properties.

*\*Specific to CAR*

*Adopted from the PDP 2017-2022*





PART III

# **INEQUALITY- REDUCING TRANSFORMATION ("PAGBABAGO")**





08

Expanding Economic  
Opportunities in  
Agriculture, Forestry,  
and Fisheries



# Expanding Economic Opportunities in Agriculture, Forestry and Fisheries

The role of agriculture in development is significant in a region where almost half of the labor force is economically engaged in agricultural activities. The growth in the sector could also be strategic in poverty reduction especially when farmers posted the highest poverty incidence in 2012 among eight basic sectors in the region. Amidst this, CAR has the advantage of a semi-temperate climate that is conducive to the production of temperate vegetable crops like cabbage, broccoli and white potato. The sector's performance is challenged, however, by constraints in production and marketing aggravated by its vulnerability to natural hazards and climate change.

## Assessment and Challenges

In 2015, agricultural growth continued to contract by 4.1 percent from the tightening in 2014 of 0.3 percent. The sector's inflation-adjusted gross value added of Php12.658 billion accounted for 9.5 percent of the region's economic output in 2015. This share is a reduction from the 10.3 percent of the previous year. The trend continues with the sector contributing an average 9-11 percent of the regional output from 2013-2015 even as it employs about half of the region's labor force.

The agricultural output and employment translate to a labor productivity of Php34,682, a decrease of 4.81 percent from Php36,435 in 2014. This is in contrast to the labor productivity in the services sector of Php178,000 per worker in 2015. Hence, enhancing agricultural productivity remains to be a challenge and must therefore be integrated in poverty reduction programs and growth strategies in the sector.

## Food Sufficiency

On food sufficiency, decreases in major commodity production resulted in negative changes as to food sufficiency levels for 2014 and 2015. The region showed slight increases in food sufficiency levels for roots and tuber crops, fruits, beef and poultry. The big reduction in rice

sufficiency by 10.92 percent from its level of 122.22 percent in 2014 to a level of 108.87 percent in 2015 was due to the 11 percent decline in palay production in 2015 from its level in 2014. (Table 8.1)

**Table 8.1 Food Sufficiency Levels by Commodity Group (In percent), CAR: 2011-2015**

Commodity Group	2011	2012	2013	2014	2015	% Change
						2014-2015
Rice	121.95	126.73	126.41	122.22	108.87	-10.92
White Corn	416.45	413.39	404.59	406.03	392.34	-3.37
Roots and Tuber Crops	384.63	376.90	392.54	390.24	393.13	0.74
Vegetables	347.98	344.22	339.17	257.23	254.04	-1.24
Fruits	73.54	71.28	74.05	84.65	85.57	1.08
Pork	33.28	36.26	35.94	34.95	32.93	-5.79
Beef	83.26	82.33	80.24	80.20	83.18	3.71
Chevon	22.92	24.44	24.30	23.34	23.07	-1.17
Poultry	9.21	7.80	8.01	7.43	7.82	5.13

Source: DA-CAR

## Crop Production

Palay production in 2015 was recorded at 400,911 metric tons (MT) accounting for 2.21 percent of the national output. (Table 8.2) This shows a decline of 11 percent compared to 2014. The drop is partly explained by the decrease in area harvested by almost 7,000 hectares, 80 percent of which occurred in Kalinga. The resulting yield in metric tons per hectare has thus declined from 3.82 in 2014 to 3.59 in 2015.

Across provinces, Kalinga remains to be the biggest palay producer at 35 percent followed by Apayao at 22.35 percent. Kalinga had the biggest decrease at 20 percent which is the same as Mountain Province that also ranked 2<sup>nd</sup> in the reduction in area harvested even if it only contributed 4 percent to the regional palay output.

**Table 8.2 Palay Production, Area Harvested and Yield, CAR: 2013-2015**

Indicator	2013	2014	2015	Percent Change (2014-2015)
Production (metric tons)	460,170	452,609	400,911	-11.42
Area Harvested (hectares)	119,919	118,476	111,482	-5.90
Yield (metric tons/hectare)	3.84	3.82	3.59	-6.02

Source: PSA

Corn production was at 237,823 MT contributing 3.16 percent to the national output. (Table 8.3) This is, however, a reduction from 2014 of 2.76 percent which is partly due to the net decrease of 421

hectares in area harvested. While there was a net increase of area harvested in Ifugao, Kalinga and Mountain Province, this was reversed by the large decrease in Apayao of 452 hectares. This drop caused the yield to

decline to 3.59 MT per hectare from 3.82 in 2014. Ifugao continues to be the biggest corn producer among the CAR provinces accounting for 47 percent of the regional output followed by Kalinga at 23 percent.

**Table 8.3 Corn Production, Area Harvested and Yield, CAR: 2013-2015**

Indicator	2013	2014	2015	Percent Change 2014-2015
Production (metric tons)	242,074	244,576	237,823	-2.76
Area Harvested (hectares)	61,639	64,832	64,411	-0.65
Yield (metric tons/hectare)	3.93	3.77	3.69	-2.12

Source: PSA

Vegetable production in 2015 declined by 1.2 percent compared to the previous year (Table 8.4). Contributing to the overall decline in the production of major vegetable crops was the 2.2 percent drop in cabbage output due to worm infestation during head formation along with typhoon damages. Also, the area harvested for major vegetables declined except for the miniscule increase for white potato production. Notwithstanding the slight increase in cauliflower output, production of most priority vegetable crops specifically Irish potato, carrots, Chinese pechay, habitchuelas and bell pepper were lower compared to last year.

**Table 8.4 Vegetable Production, Area Harvested and Yield, CAR: 2013-2015**

Indicator	2013	2014	2015	Percent Change 2014-2015
Vegetables (Major Crops)	379,953	382,715	378,163	-1.2
Priority Crops	132,029	132,536	130,963	-1.2
	247,924	250,180	247,200	-1.2
<u>Cabbage</u>				
Production	99,958	99,520	97,307	-2.22
Area	5,402	5,316	5,274	-0.79
Yield	18.5	18.7	18.45	-1.34
<u>Irish Potato</u>				
Production	100,758	102,255	101,829	-0.42
Area	5,892	5,885	5,894	0.15
Yield	17.1	17.38	17.28	-0.58
<u>Carrots</u>				
Production	60,038	60,507	59,527	-1.62
Area	3,328	3,318	3,277	-1.24
Yield	18.0	18.2	18.17	-0.16
<u>Chinese Pechay</u>				
Production	45,058	45,145	44,677	-1.04
Area	2,786	2,787	2,770	-0.61
Yield	16.17	16.2	16.13	-0.43

Source: PSA, DA-CAR

Even with the decline in vegetable production, CAR dominates production relative to the national output, i.e., broccoli (65%), cabbage (77%), carrots (88%), habitchuelas (53%), Chinese pechay (87%), white potato (86%), cauliflower (44%). Much of the production for the aforementioned vegetables emanates from Benguet with a small contribution in most of these from Mountain Province.

with banana production growth at 1.23 percent and mango declining by 7.7 percent (Table 8.5). The highest producer of banana in the region is Apayao accounting for 33 percent of the regional output in 2015. It is followed by Abra at 28 percent and Ifugao at 20.7 percent. For mango, about 48 percent of the output in 2015 is from Benguet, followed by Abra at 22 percent and Ifugao at 19 percent.

Production of major fruit crops was up by 0.2 percent from 31,113 MT to 31,168 MT

**Table 8.5 Fruit Production (In metric tons), CAR: 2013-2015**

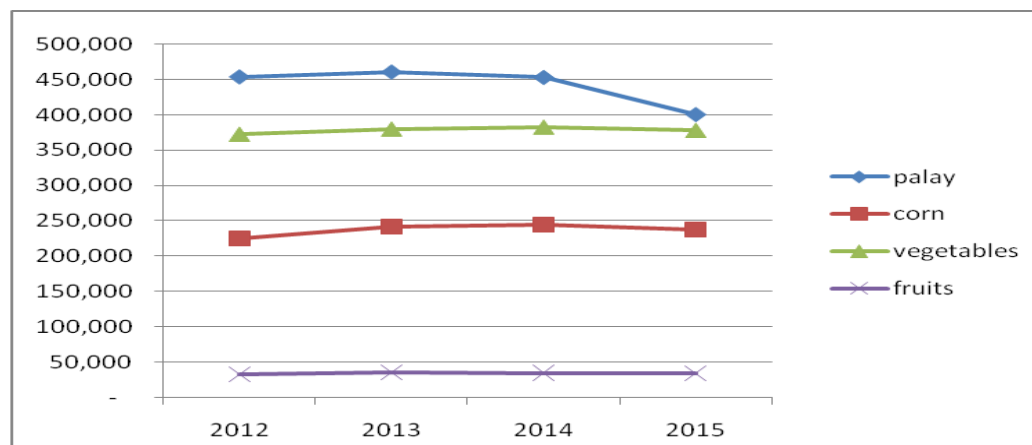
Indicator	2013	2014	2015	Percent Change 2014-2015
Major Fruits	31,805	31,113	31,168	0.18
Priority Fruits	3,786	3,834	3,697	-3.57
Total	35,591	34,947	34,865	-0.23
Banana	27,195	26,254	26,576	1.23
Mango	3,422	3,610	3,332	-7.70

Source: PSA, DA-CAR

The need to improve production of various commodities can be seen in the following

graph that shows the lacklustre performance of the sector in recent years.

**Figure 8.1 Palay, Corn, Vegetable and Fruit Production (In metric tons) CAR: 2012-2015**



Source: PSA



Coffee production in 2015 was 5,210 MT (Table 8.6) or 5.83 percent of the national output for the same year. The volume is down by 0.78 percent compared to the previous year. The production area was reduced by 50 hectares yielding less than a metric ton per hectare. The highest producer of coffee is still Kalinga contributing about 67 percent to the region's output. It is trailed by Ifugao at 19 percent.

Of the coffee varieties, 87 percent of the production is the Robusta variety, of which 75 percent comes from Kalinga followed by Ifugao at 21 percent. Arabica accounts for 11 percent of the region's coffee production, 78 percent of which is produced in Benguet followed by Mountain Province with 9 percent. Arabica is acclaimed as a "higher quality and higher value coffee normally grown in cooler, elevated areas of the tropics and sub-tropics at 1,000 meters or more above sea level" (FAO, Arabica Coffee Manual). Hence, the region has a comparative

advantage in Arabica production. Excelsea comprised 2 percent of the region's coffee production of which 63 percent is produced in Kalinga and 26 percent in Benguet. Liberica accounts for 0.31 percent, all of which is produced in Abra. It is noted that Liberica and Excelsea are grown mainly in low, hot climate areas with poor quality and limited markets, hence, these are not of major commercial significance in the international coffee market (FAO).

Recent efforts to boost the coffee industry include a Cordillera Branding Program that provides recognition through an accreditation process to products made in the Cordillera particularly coffee to promote product quality and marketability. Another initiative is the use of Geographical Indication (GI) that identifies the coffee as originating from a locality or region where a given characteristic or standard is attributable to its geographical origin.

**Table 8.6 Coffee Production, Area Harvested and Yield, CAR: 2013-2015**

Indicator	2013	2014	2015	Percent Change 2014-2015
Production (metric tons)	5,465	5,251	5,210	-0.78
Area Harvested (hectares)	6,695	6,681	6,631	-0.75
Yield (metric tons/hectare)	0.81	0.79	0.79	0.00

Source: PSA, DA-CAR

## Livestock and Poultry Production

Livestock production in 2015 was at 35,135 MT with hog production accounting for 76 percent, cattle for 13 percent, carabao for 9 percent and goat for 2 percent (Table 8.7). Compared to 2014, livestock production declined by 6 percent attributed to the

drop in hog, cattle and carabao production. Abra was the highest producer in all livestock types contributing 59 percent to goat output, 38 percent to cattle, 34 percent to carabao and 24 percent to hog.

Chicken production in 2015 was at 7,736 MT or 90 percent of poultry production in the region. This is an increase of about 8 percent compared to 2014. Duck production, on the other hand, declined by 5.61 percent. Across the provinces, Ifugao

is the highest producer in poultry contributing 54 percent to chicken production and 40 percent to duck production.

**Table 8.7 Livestock and Poultry Production (In metric tons), CAR: 2013-2015**

Indicator	2013	2014	2015	Percent Change 2014-2015
Hog	30,553	28,771	26,747	-7.03
Cattle	4,663	4,570	4,430	-3.06
Carabao	3,359	3,273	3,145	-3.91
Goat	863	806	813	0.87
Chicken	7,359	7,181	7,736	7.73
Duck	838	838	791	-5.61

Source: PSA, DA-CAR

## Fish Production

Fish production decreased by 3 percent from 3,987 MT in 2014 to 3,867 MT in 2015 (Table 8.8). Only Benguet posted a positive growth of 2 percent year on year and this is due to the opening of new fishpond areas in Sablan, Mankayan and Itogon. By type of production, aquaculture comprises 70 percent and inland production accounts for the remaining 30 percent. Ifugao contributed 47 percent to the regional fish output trailed by Kalinga at 12 percent.

Food sufficiency in fish declined to 10.21 percent from 10.79 percent in 2014 and is 0.43 percentage point below the target. The negative performance in the fisheries sector is attributed to the flooding and erosion of fishponds and the damages on fishcages wrought by Typhoon Ineng (August 2015) and Typhoon Lando (October 2015). In addition, the hot temperature in some areas during the third quarter triggered premature harvest.

**Table 8.8 Fish Production and Food Sufficiency, CAR: 2013-2015**

Indicator	2013	2014	2015		Percent/Point Change 2014-2015
			Target	Actual	
Fish production (MT)	3,907	3,987	4,031	3,867	-3.0 %
Food sufficiency in fish (%)	10.67	10.79	10.64	10.21	-0.58 % point

Source: BFAR-CAR

Among interventions to increase fishery productivity, technology demonstrations in integrated farming system, freshwater fish cage, pond culture, fish polyculture and catfish culture were established in selected municipalities in all CAR provinces. Fish supply services were also extended to maintain broodstock particularly for tilapia. It procured and dispersed tilapia fingerlings as well as produced and dispersed fish seeds. For on-farm equipment and post-harvest facilities, 19 barangay fish terminals and 10 fish

marts were established. To ensure fisheries resource rehabilitation and development, four fish sanctuaries have been monitored and 37 communal bodies of water monitored and stocked. The communal bodies of water that are regularly monitored are the Binga and Ambuklao Dams in Benguet, the Magat Dam in Ifugao and the Amburayan, Chico and Abra Rivers that are among the economically important river systems in the region.

## Irrigation Development

Of the potential irrigable area in the region of 185,406 hectares, 51.16 percent has been developed as of December 2015 with 90,746 hectares remaining for development (Table 8.9). The irrigated areas include those under the National Irrigation System (NIS) (16.53%) and the Communal Irrigation System (CIS) (83.47%), the latter being either NIA-assisted, privately developed or assisted by other government agencies. In the region, communal irrigation systems irrigate areas for rice and other areas for vegetables, corn, flowers and other high-value crops.

Across the provinces, Kalinga and Apayao have the highest potential irrigable area accounting for 24 percent and 18 percent, respectively. However, Abra has the highest share of its potential that is developed as of 2015 at 70 percent. The widest remaining area for development is in Apayao covering 24,052 hectares followed by Kalinga with 18,849 hectares

and Mountain Province with 17,916 hectares.

The importance of irrigation facilities cannot be over-emphasized in CAR with its limited agricultural lands due to steep slopes. Yet, irrigation facilities are among the critical economic infrastructure that are damaged during typhoons and sustained monsoon rains. In 2015, during Typhoons Ineng (August) and Lando (October) alone, the estimated cost of damage/repair on irrigation was Php566 million, 30 percent of which was in Mountain Province and 24 percent in Kalinga. Added to the damage in infrastructure is the cost of foregone crops that could have been produced.

**Table 8.9 Status of Irrigation Development (In hectares), CAR: 2013-2015**

Indicator	2013	2014	2015	Percent/Point Change 2014-2015
Area Developed	91,278	93,480.4	94,859.81	1.48% or 1,379.41 hectares increase
Irrigated Area over Potential Irrigable Area	49.23%	50.42%	51.16 %	0.71 point

Source: NIA-CAR

The sector remains to face the following challenges:

**Low productivity in agriculture.** The region's major challenge is the limited land for agricultural production, hence the need for technologies that increase yield even in steep slopes. Added to this is the relative inadequacy of irrigation support in a framework that puts small farms as least priority in irrigation development. Amidst this, CAR has demonstrated a sustained dominance in the production of high value semi-temperate vegetables and even in cutflowers. It also has the appropriate temperature and elevation for coffee production which has a significant global market. Value added could be increased in all stages of each product's value chain. The necessary technical assistance, financing assistance and post-harvest support have to be in place through a self-reliance approach and not dependence on government.

**Vulnerability to disaster and climate change.** In 2016, crops and livestock losses, damages to irrigation and other agricultural infrastructure caused by typhoon Lawin amounted to more than

Php3.6 billion. Thus, the sector's resilience to disasters, extreme temperature and off-season typhoons need to be integrated in the design of support infrastructure like irrigation and farm to market roads (FMRs) as well as in the technologies being developed. Crop losses and rehabilitation costs are foregone funds that could have been added to farmers' income or for government assistance.

**Sustaining agricultural production while protecting the environment.** Farming practices that are heavy on the use of chemical fertilizers and pesticides should be redirected to organic fertilizer use and integrated pest management. Also encroachment to forest lands should not be allowed.

**Low farm income.** In CAR, farmers are the poorest of the basic sectors with poverty incidence of 33 percent in 2012. Increasing farmers' productivity through better farming practices, appropriate assistance and off-farm skills building could increase farmers' income beyond the poverty threshold.

## Strategic Framework

In the medium-term, the agriculture, hunting, forestry and fishing (AHFF) sector will seek to increase the production of agricultural commodities, improve yields to increase farmers' incomes and ensure food security.

### Targets

Table 8.10 presents the key indicators for the sector.

*Table 8.10 Plan Targets to Expand Economic Opportunities in Agriculture, Forestry and Fisheries, 2017-2022*

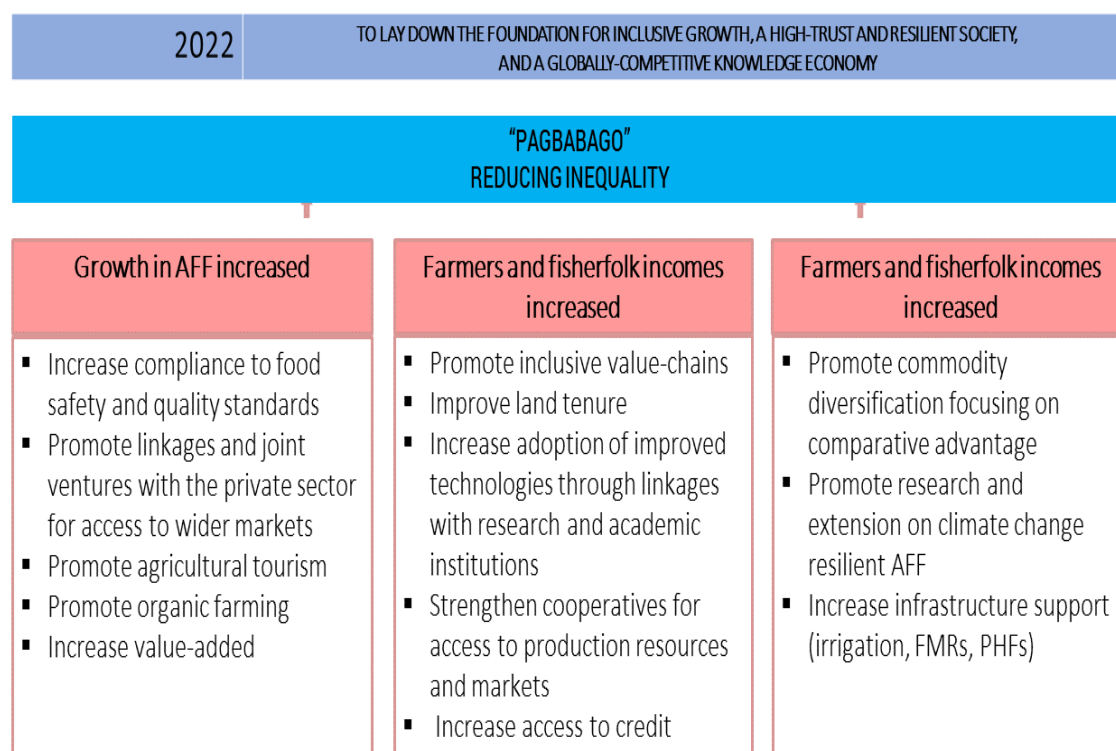
Indicator	Baseline		End of Plan Target 2022	
	Year	Value		
Sub-sector Outcome 1: Growth in AFF Sector increased				
AHFF GVA (Billion pesos)	2015	12.6	3.0-4.0	
AHFF GVA Growth Rate (%)	2015	-4.1		
Volume of Production				
Crops Increased-MT				
Palay	2015	400,911		
Corn	2015	237,823		
Cabbage	2015	97,307		
W. Potato	2015	101,829		
Carrot	2015	59,527		
C Pechay	2015	44,677		
Coffee	2015	5,210		
Banana	2015	26,576		
Mango	2015	3,332		
Livestock, Poultry(MT)				
Cattle	2015	4,430		
Swine	2015	26,747		
Goat	2015	813		
Chicken	2015	7,736		
Duck	2015	791		
Fish (MT)	2015	3,867		
Food Sufficiency	2015	10.21		
Land Productivity Increased				
Yield (MT/ha.)				
Palay	2015	3.59		
Y. Corn	2015	3.69		
W. Corn	2015			
W. Potato	2015	17.28		
Carrots	2015	18.17		
Cabbage	2015	18.45		
Coffee	2015	0.79		

Irrigation development increased			
Irrigated area (Has.)	2015	94,860	
Irrigated area over potential irrigable area (%)	2015	51.16	59.65
<b>Sub-sector Outcome 2: Income of families in AFF increased</b>			
Labor Productivity (Pesos)	2015	34,587	

## Strategies

The strategic framework shows the sector food sufficiency. These sub-sector outcome of a competitive agriculture outcomes shall be promoted with sector characterized by increasing gross increased yield and production of value added, farm income, resilience and commodities

*Figure 8.2 Strategic Framework to Expand Economic Opportunities in Agriculture, Forestry and Fisheries, 2017-2022*



In order to ensure the competitiveness of Cordillera products in the local, domestic and export markets, agricultural labor and land productivity as well as food safety and quality standards should be improved.

Towards this end, the following strategies and programs can be promoted in support of the regular programs of government agencies:

**Strengthen the partnerships of frontline agencies to expand information dissemination and technical assistance to small farmers and MSMEs in meeting food safety and quality certification standards required by the integration of the ASEAN market.** The Department of Agriculture (DA) and the Bureau of Fisheries and Aquatic Resources (BFAR) with the Bureau of Agriculture and Fisheries Standards (BAFS), the Agricultural Training Institute (ATI) and the Food and Drug Administration (FDA) may coordinate their programs on:

- a. Orientation and trainings to assist farmers and food processors with certification requirements, e.g., record keeping, internal control systems, sanitary practices for Good Agricultural Practices (GAP), Good Animal Husbandry Practices (GAHP), Good Manufacturing Practices (GMP).
- b. Assistance to augment the farmer's or agri-based processor's resources in establishing required facilities such as storage and processing facilities, water supply and waste management system up to set standards.
- c. Conduct of site visits to assess compliance with certification requirements and technical assistance to prepare the farmer or processor for the evaluation of national or regional inspectors.

**Promote joint venture programs and linkages with the private sector to improve production cost-efficiency, compliance to quality standards, consolidation of produce and access to wider markets.** Examples of farmer and business partnerships and assistance may be in the following:

- a. Reducing production costs and increasing efficiencies with increased backward and forward linkages in commodities in which the region has the comparative advantage or potential such as in vegetables, fruits, rootcrops, coffee and cutflowers. This would also promote the participation of producers in processing and other stages in the commodity value-chain.
- b. Linking small farmers in cooperative arrangements with large companies to consolidate production and marketing to the required quantity and quality. An example is partnership with the private sector in the marketing of heirloom rice in the domestic and export markets. This also ensures the preservation of the Cordillera rice terraces that is a part of the indigenous culture and way of life.
- c. Promoting agricultural tourism to diversify and increase farmers' incomes.



- d. Promoting the production and marketing of organic products to mitigate environmental pollution and promote the good health of farmers and consumers alike.
- e. Product branding to also raise consumer awareness of the health benefits of products certified for food safety and quality. This would also increase demand and establish a premium for certified products that will motivate producers to comply to and sustain product quality standards.
- f. Forging linkages and networks to improve access to information and technology for increased productivity and competitiveness. This includes research and development for climate change-resilient agriculture and using information and communications technology to give farmers access to innovations designed for the poor and help them connect to markets.
- g. Advocating the Cordillera Coffee Industry Development Plan 2016-2022 that aims to boost coffee production and increase the income of stakeholders in the coffee industry.
- a. Encouraging marginal farmers to shift to the production of identified high-value crops (HVC) with market potential. The resources re-allocated to HVC programs would provide skills retraining and relocation assistance to more productive sectors.
- b. Irrigation development to cover areas with more than 18 percent slope that have existing or potential for HVC crops. Irrigation development should also cover the rehabilitation of watershed areas.
- c. The reclassification of forest lands that are agriculturally developed as alienable and disposable as long as these are not in hazard-prone and environmentally critical areas.
- d. Improving agricultural resiliency with the adoption of crops and livestock that are flood or drought resistant or adaptable to extreme weather conditions brought by climate change.

**Propose studies and formulate policies promoting agricultural resiliency, inclusive value chains, establishing a stable investment climate and increasing competitiveness.** Proposed policies and researches may include:

**Budget support to increase agricultural productivity with the provision of production and marketing infrastructure and mechanization.** Agricultural production is increased with the provision of irrigation facilities increasing production area and cropping intensity. Lower production and marketing costs are realized, on the other hand, with farm to market roads improving access to production inputs and markets. Marketing losses are also minimized with improved roads, post-harvest and transportation facilities. Labor productivity, meanwhile, is promoted with



improved technology and mechanization such as land preparation and harvesting of high yielding rice varieties in areas suitable to economies of scale. In addition to the regular programs of government agencies, these are implemented through special projects such as the Philippine Rural Development Project (PRDP) and the Scaling Up of the Second Cordillera

Highland Agricultural Resource Management Project (CHARMP2).

A special project to reduce poverty in the provinces with high poverty incidence is the Special Area for Agricultural Development (SAAD) Program focusing on family-based livelihood projects such as food production and agro-forestry.

## Legislative Agenda

*Table 8.11 Legislative Agenda to Expand Economic Opportunities in Agriculture, Forestry and Fisheries*

Legislative Agenda	Rationale
Review of guidelines in the conversion of prime agricultural lands to other uses	<p>In the interest of food security, guidelines on the conversion of prime agricultural lands to other uses such as for settlements, commercial or industrial purposes should be reviewed to ensure that prime agricultural lands will be preserved specially if these are provided with agricultural production and marketing facilities, e.g., irrigation, farm to market roads or post-harvest facilities.</p> <p>Any restriction, however, should also consider the optimum use of the land as may be prescribed by the local government's land use plan or the rights of Indigenous Peoples as provided for by the Indigenous Peoples Rights Act (IPRA).</p>
Potential irrigable areas in CAR to include agriculturally developed areas with more than 18 percent slope that are not in hazardous or environmentally critical areas	<p>The National Irrigation Administration's definition of potential irrigable area as lands with slope of 3 percent and below is disadvantageous to the region with its steep topography characterized by slopes of 18 percent and above over 85 percent of its land area. This results to a low irrigation budget for CAR compared to other regions. As of 2015, only 51 percent of potential irrigable area has been developed.</p>



09

Expanding Economic  
Opportunities in  
Industry and Services  
through *Trabaho at  
Negosyo*



# Expanding Economic Opportunities in Industry and Services through *Trabaho at Negosyo*

The Cordillera Administrative Region's wealth in mineral resources, its being the host to one of the country's largest multinational semiconductor firms, and the innovative nature of the Cordilleran, have invigorated the region's industry sector, enabling it to contribute an average of 3 percent to the national industry gross value added (GVA) from 2010 to 2015. This is higher than that of other regions, with the exception of CALABARZON, Central Luzon and the NCR. CAR's electronic components manufacturing subsector contributed around four percent of national electronics exports in 2014. Meanwhile, services, its fastest growing sector, registered 6.5 percent growth in 2015 and accounts for around 40 percent of the region's total employment. The region's services sector has created a niche in recent years, especially with the exceptional growth of Business Process Outsourcing (BPO) activities. Another subsector, the tourism industry, composed of an agglomeration of a wide variety of services that include food and accommodation services, transport services, retail and recreational activities, also continues to grow as CAR's strength in tourism is gradually being harnessed.

## Assessment and Challenges

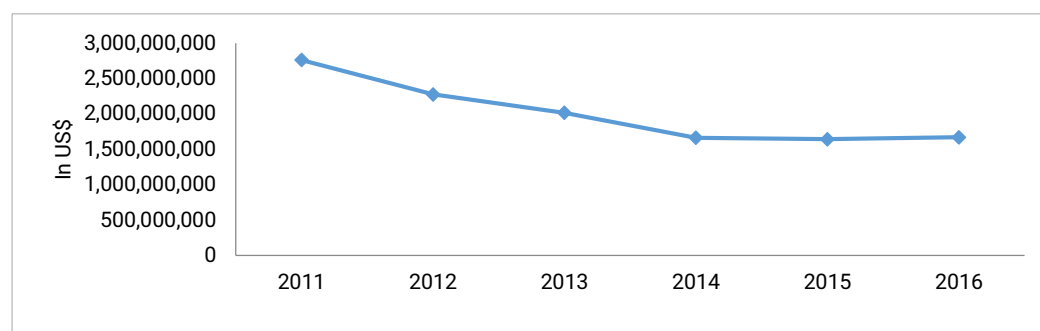
Need to expand and accelerate the growth of high demand and employment generating subsectors

The manufacturing sector of Philippine Economic Zone Authority (PEZA) continues to contribute largely to the industry sector's Gross Value Added (GVA). But export figures have been declining since 2011 due to low demand for electronic products. Electronics has emerged as one of the region's strongest products in the export market. Production of electronics and electronic components is

solely undertaken by PEZA locators. However, it had been observed that the region's export figures have gone down since 2011, due to low demand for electronic products brought about by the slowing economies of the country's biggest markets, namely Japan, China, the European Union (EU) and the United States. Higher figures were reported in 2016, but the difference between 2015 and 2016 export sales is insignificant.

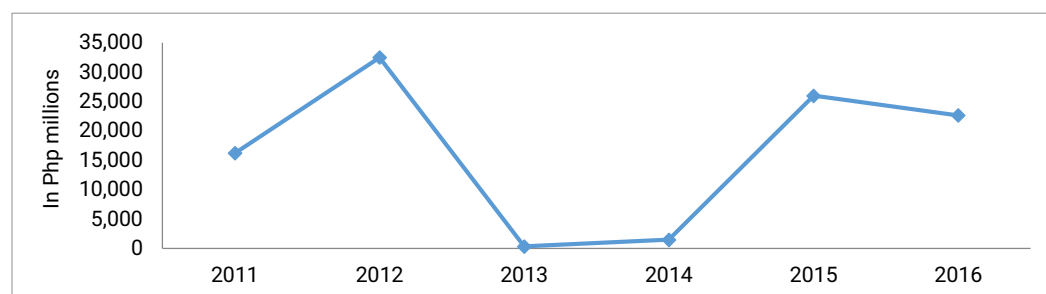
In relation, while numbers have gone up in 2015, it had been noted that investments in the sector for the past five years only consisted of expansion projects and machinery upgrades, and no new firms have emerged in the region.

**Figure 9.1 PEZA Exports (In US\$), CAR: 2011–2015**



Source: PEZA

**Figure 9.2 PEZA Investments (In million pesos), CAR: 2011–2016**



Source: PEZA

The potential capacity of the region's hydropower resource is 3,587 megawatts (MW), but CAR's hydropower production is currently at only 337.75 MW. The region's vast hydropower potential also needs to be maximized. As host to 13 major river basins, CAR is known as the watershed cradle of the north. The region is envisioned to be a major hydropower producer in Northern Luzon, with potential production estimated at 3,587 MW – around 27 percent of the national total, and translating to an estimated US\$1.2 billion in foreign exchange savings (Cordillera Energy Producer Master Plan). However,

the region only provides for around 2.5 percent of national demand, producing only 337.75 MW in 2015. Large hydro projects face strong opposition from host communities, whose protests stem from environmental concerns and questions on project sustainability and displacement of locals.

**The contribution of mining to national GVA shrank after 2011, even as it experienced positive growth between 2013 and 2014.** The subsector contributed to the national GVA an average of 2.5 percent between 2013 and 2014 which is less than half of its share in 2010 at 6.6 percent. Likewise, its share to regional industry GVA shrank from 3.6 percent in 2010 to 1.6 percent in 2015. It also experienced negative growth between 2010 and 2012, and between 2014 and 2015. Safety and sustainability issues have also continued to beleaguer the subsector.

**The potential for CAR to contribute largely to the country's production of high demand agro-based products, particularly coffee, has yet to be realized.** Supply chain gaps also need to be addressed in order to establish the region's producers as key players in both local and international markets, and to realize CAR's potential as an agro-industrial center. The region has a diverse range of agricultural products that it markets as processed commodities, such as fruits and nuts and cacao. It is also known for its wearable and homestyle products and its semi-temperate vegetables.

More importantly, coffee, recognized as one of the world's most valuable trading products, had been identified as one of the region's priority commodities. CAR has an advantage over others in growing Arabica, the variety of higher value. Arabica thrives in elevation of 1,000 to 1,800 meters above sea level and mean temperatures between 16 and 22 degrees Celsius, and is mostly grown in Benguet. At present, it only constitutes around 10 percent of the

region's total coffee production, and CAR accounts for 7 percent of the national total. With the rise in popularity of specialty coffee, harnessing this advantage would elevate local producers to the ASEAN market.

Low productivity of the region's coffee producers may be attributed to a number of factors that include lack of knowledge among farmers, limited access to markets, production facilities, and financial and government support, and inadequate technology adoption and quality control.

**The region's services sector experienced year on year positive growth since 2012. Real estate, renting and business activities emerged as a strong subsector during the period in terms of growth and share in the GRDP.** For services, all subsectors, with the exception of public administration and defense, posted increasing growth rates between 2011 and 2015, and the contribution of the sector as a whole to the GRDP continues to grow. Real estate and financial intermediation growth stood out, particularly in 2013. It can also be noted that subsectors that cater to the tourism industry, particularly transport, hotels and restaurants, retail, and other services, posted sustained growth from 2011 to 2015. Real estate and financial intermediation growth may also be attributed in part to tourism development in the region.

Financial and insurance activities had the third highest growth rate in 2015 under services at 6.5 percent. However, data shows that there are no large financial and insurance firms in the region. It could also

be noted that 75 percent of the banks in CAR are in Benguet.

**Employment under industry is still the lowest, whereas it continues to increase in services.** Around 40 percent of the region's total employment is under the services sector, compared to industry, which accounts for only 12 percent. Despite its more than 50 percent contribution to CAR's GRDP, the industry sector continues to account for the lowest share of employment at only 12 percent. In addition, while manufacturing dominates the sector in terms of value added, employment for industry was mostly recorded under mining and construction. Construction accounts for around 49 percent of total employment for industry, and mining 27 percent. The share of manufacturing is only 20 percent.

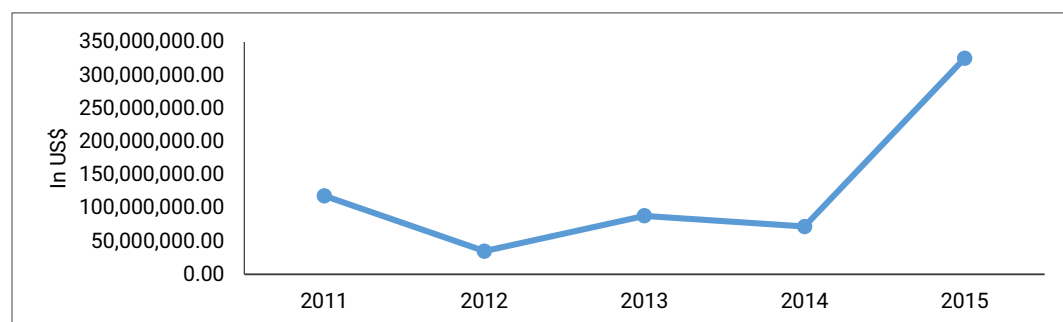
Meanwhile, the services sector accounts for an average of 40 percent of the region's total employment, with around 31 percent falling under wholesale and retail. This is mostly absorbed by the six large-scale retail firms in the region. Other subsectors with large shares are public administration and defense, transport, storage and communication, and education. It can be noted that while real estate, renting and business activities posted the highest growth among all the services subsectors, its share to the employment generated by services is only at an average of 1.65 percent. Meanwhile, public administration and defense, which has negative average growth, accounts for almost 16 percent of jobs under services.

### Uneven development, with growth concentrated in the BLISTT (Baguio-La Trinidad-Itogon-Sablan-Tuba-Tublay)

The region's business process outsourcing (BPO) industry started to expand in recent years. When Baguio City emerged as one of the industry's preferred investment destinations, it figured prominently in the Tholon's List, placing 94th among other cities in the world in 2016. The BPO industry has established itself as a strong player in recent years, and like the region's other strong industries, BPO firms have remained concentrated in Baguio City. The region, as the educational center of the north, boasts of a highly skilled and English proficient population. Because of this, locals find employment with BPO firms. By 2016, BPO full-time employees in the city numbered around 20,000. These jobs have been created by 11 PEZA-registered firms housed in five IT buildings within Baguio City's economic zones. These firms provide IT services, particularly customer care and technical support. The region's BPO figures illustrate how the sector has grown since 2004, during which such establishments in PEZA only employed 40 persons. IT-related investments amounted to Php248,007,000 from 2013 to 2014 alone, and IT-related exports totaled US\$325,426,014.94 in 2015, which is 175 percent above export figures reported in 2011.



**Figure 9.3 PEZA IT Company Exports (In US\$), CAR: 2011 – 2015**



Source: PEZA

It is worth noting that Baguio City had recently been ranked 94th among the cities in the 2016 Tholon's List of most favored outsourcing destinations, and had been included among the Philippines' Next Wave Cities in 2013 and 2015.

With the rest of the region lagging behind the BLISTT, and Baguio City continuing to dominate the cluster, the challenge of evenly distributing investments in the region remains. While growth in the eastern growth corridor led by Tabuk City in Kalinga has manifested in recent years, industries outside of Baguio City still need to post significant contributions to regional growth. PEZA is currently looking into expanding outside of highly congested Baguio City, but most of CAR's local government units (LGUs), including secondary growth centers or provincial capitals, may have difficulty in complying with infrastructure requirements set under Republic Act (RA) 7916 or the Special Economic Zone Act. Aside from the establishment of additional industrial and IT economic zones, numerous options in terms of potential areas of development are

available for CAR. Alternative industries with high growth potential, like agro-industry and eco-tourism, are waiting to be developed.

**Low sustainability and capacity of micro, small and medium enterprises (MSMEs) to participate in larger markets and diminishing efficiency of cooperatives**

**Industry and service firms are predominantly micro establishments.** Data shows that in total, around 93 percent of businesses in the region are micro businesses, with average assets of Php3 million or less, and nine employees at most for each establishment.

In the industry sector, 94 percent of the total number of MSMEs are classified as micro businesses, and around 97 percent of these micro firms are engaged in manufacturing. Similarly, 93 percent or most of the service establishments in the region are micro service enterprises, and more than 50 percent of these service firms are engaged in wholesale and retail trade.

*Table 9.1 Number of Micro, Small, Medium and Large Enterprises, CAR: 2013*

	NUMBER OF FIRMS				SHARE IN EMPLOYMENT			
	Micro 2,045	Small 108	Medium 11	Large 9	Micro 5,248	Small 2,903	Medium 2,117	Large 9,442
<b>Industry (Total: 2,173)</b>								
Mining and Quarrying	5	7		3	31	277		4,599
Manufacturing	1,980	68	3	6	4,683	1,412	455	4,081
Construction	33	23	4		144	842	821	762
EWGS	22	10	4		273	372	841	
Water Supply, Sewerage Management and Remediation	5				117			
<b>Services (Total: 15,940)</b>	<b>14,819</b>	<b>1,085</b>	<b>15</b>	<b>21</b>	<b>37,850</b>	<b>22,502</b>	<b>2,595</b>	<b>13,311</b>
Transport, Storage and Communication	12	9			72	326		
Wholesale and Retail Trade	7,846	318		6	18,480	5,744		1,738
Financial and Insurance Activities	314	122			989	1,524		
Real Estate, Renting and Business Activities	186	25			556	702		
Other Services	944	38			2,481	484		
Accommodation and Food Service Activities	2,920	286	6		8,925	5,971	1,237	
Information and Communication	1,005	23			1,875	782		3,000
Financial and insurance activities	314	122			989	1,524		
Real estate activities	186	25			556	702		
Professional, Scientific and Technical Activities	341	12			926	452		
Administrative and Support Service Activities	229	18	4	6	492	659	575	3,761
Education	209	199	5	6	999	5,129	783	3,786
Human Health and Social Work Activities	584	23		3	1,214	501		1,026
Arts, Entertainment and Recreation	229	12			571	228		

Source: PSA, RSET 2016

The capacity of micro and small enterprises in CAR to generate employment is greatly surpassed by large firms. Large establishments in the region employ 658 persons on average, whereas micro firms only have an average of two employees each.

**Business name registrations exceeded end of Plan targets, but the number of renewals is only around 26 percent of total new business name registrations.** End of term targets for new business name registrations for single-owner firms were met by 2015. Figures in 2011 increased by around 20 percent by 2015. The same is

true for business name renewals, whose total in 2015 also exceeded end of term targets. The figures for renewals represent single-owner firms that have been operating for at least five years. However, even as targets have been met or even surpassed, comparing the total number of annual new registrants and annual renewals would show that only 26 percent, or one in four firms, renew their business names in five years. In addition, only a handful of businesses that do survive graduate to larger-scale enterprises, or develop into exporters.

*Table 9.2 Business Name Registrations, New and Renewal, CAR: 2011-2015*

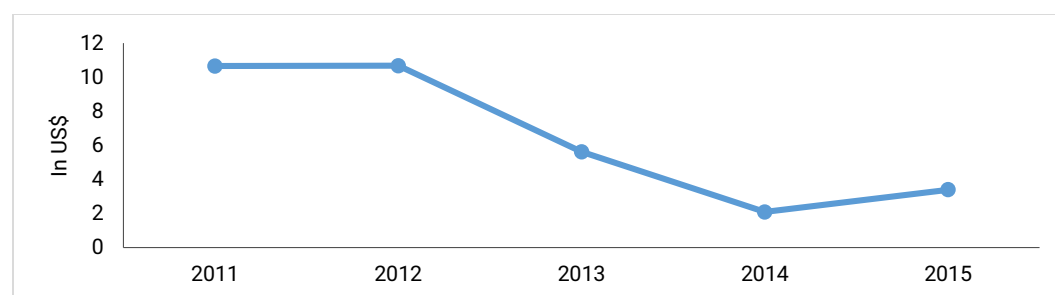
BUSINESS NAME REGISTRATION	END OF TERM TARGET	2011	2012	2013	2014	2015	END OF 2015 TOTAL
Total	25,890	6,677	7,080	5,924	9,866	8,530	38,077
New	22,251	5,808	6,285	4,664	6,550	7,010	30,317
Renewal	3,639	869	795	1,260	3,316	1,520	7,760

Source: DTI

**MSME exports have not recovered since 2012.** MSME exports slid down from US\$10.66 million in 2011 to US\$3.39 million in 2015. CAR's MSMEs need to undergo continual improvement and

innovation in order to create a niche in the ASEAN and global markets, or to at least catch up with more advanced MSMEs from other regions.

*Figure 9.4 MSME Exports (In million US\$), CAR: 2011-2015*



Source: DTI

The number of cooperatives and members continue to increase, but so does the number of incidences of delinquencies and mismanagement. The role of cooperatives in poverty alleviation is gradually being given due cognizance, as an increasing number of MSMEs in the region that find it difficult to access credit

from formal financial institutions is sustained by cooperatives. Considering that around 90 percent of these cooperatives are multipurpose and credit in nature, the support of cooperatives to MSMEs and its individual members in terms of financial assistance is not to be undervalued.

**Table 9.3 Profile of Cooperatives, CAR: 2011-2016**

Particulars	2011	2012	2013	2014	2015	2016
Number of registered and operating cooperatives	708	769	825	864	896	948*
Multipurpose	474	482	491	467	467	540
Credit	185	227	267	279	293	322
Service	20	23	22	22	23	33
Others	29	37	47	50	43	53
Employment generated	2,366	3,787	3,800	3,933	3,731	5,759
Investments	293.28M	477.41M	835.59M	890.12M	891.63M	1.014B
Loan releases	558.31M	1.206B	4.449B	4.265B	5.047B	5.211B

*\*Not all of the registered cooperatives are operational. In 2015, only 550 of these cooperatives have submitted the required reports by the CDA.*

Source: CDA

The continuing increase in the number of cooperatives from only 708 in 2011 is an indication of a prospering cooperative sector in the region. However, increases in cooperatives and membership also gave rise to higher incidences of delinquencies, mismanagement, and poor record keeping.

### Low skills and productivity of CAR labor

**Majority of TVET graduates are National Certificate (NC) II holders.** In CAR, 2016 data on graduates under the Technical Vocational Education and Training (TVET) program shows that around 85 percent are NC II holders. NC II graduates possess manual and operational skills, and may qualify only in work that requires limited judgment or discretion, as opposed to NC IV graduates, who are

given decision-making and leadership functions. Given the limited number of technical-vocational institutes (TVIs) that offer NC IV courses in the region, only 1 percent of the graduates documented by TESDA in the same year were NC IV holders. NC IV graduates in the region were all from Baguio City.

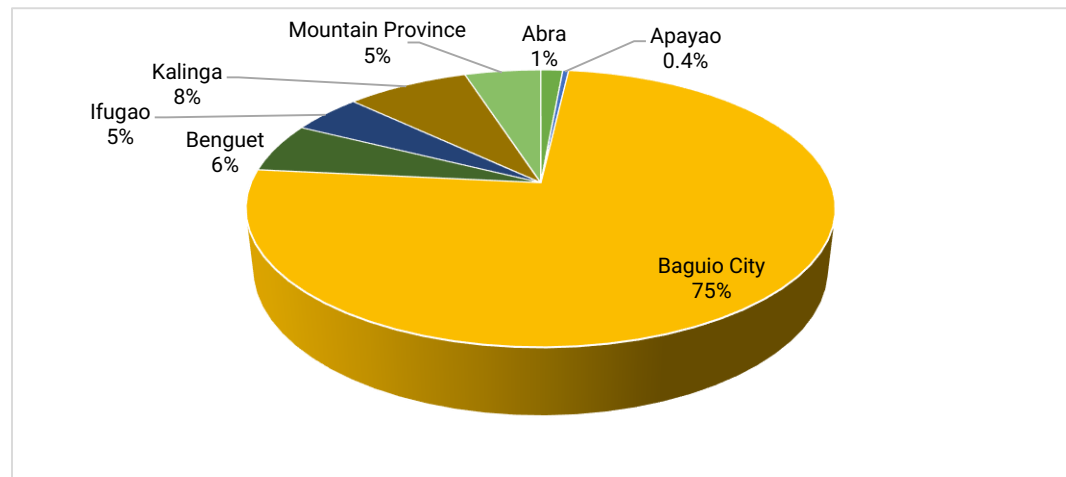
The skills and productivity of labor in the region have to be enhanced, and greater participation of CAR's manpower in higher-level offshored industries, such as engineering and software development, needs to be encouraged. Local firms also need to be advanced as major players in the service export industry, which is currently dominated by foreign enterprises.

Need to harness CAR's potential for eco-tourism while maintaining the balance between development and preservation

The region's tourism industry performed well between 2011 and 2015, but tourist arrivals were mostly recorded in Baguio City. The pace of recovery of tourism had been uneven across provinces. Baguio City still

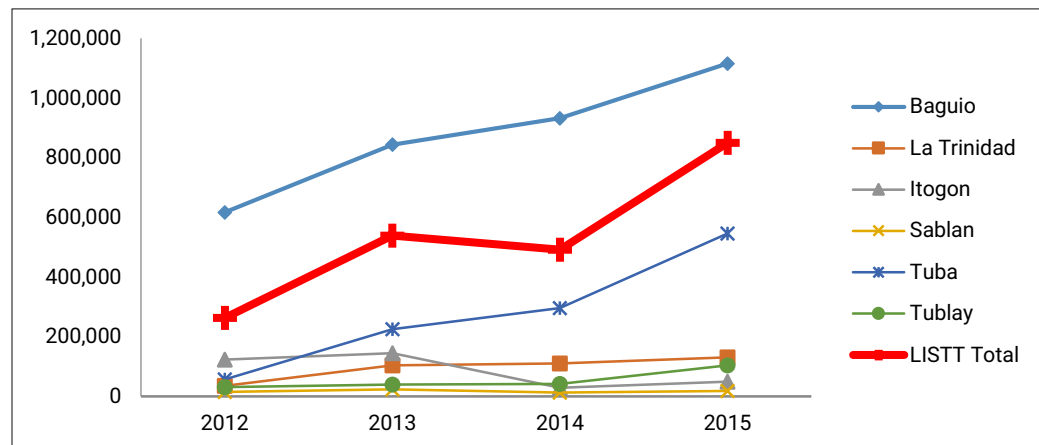
continues to dominate by a large margin, with its share averaging at around 71 percent of the regional total. Even while taking into account underreporting by other provinces, the difference between Baguio City's arrivals and that of the rest of the region remains significant.

Figure 9.5 Tourist Arrivals, CAR: 2016



Source: DOT

Figure 9.6 Tourist Arrivals, BLISTT: 2012–2015



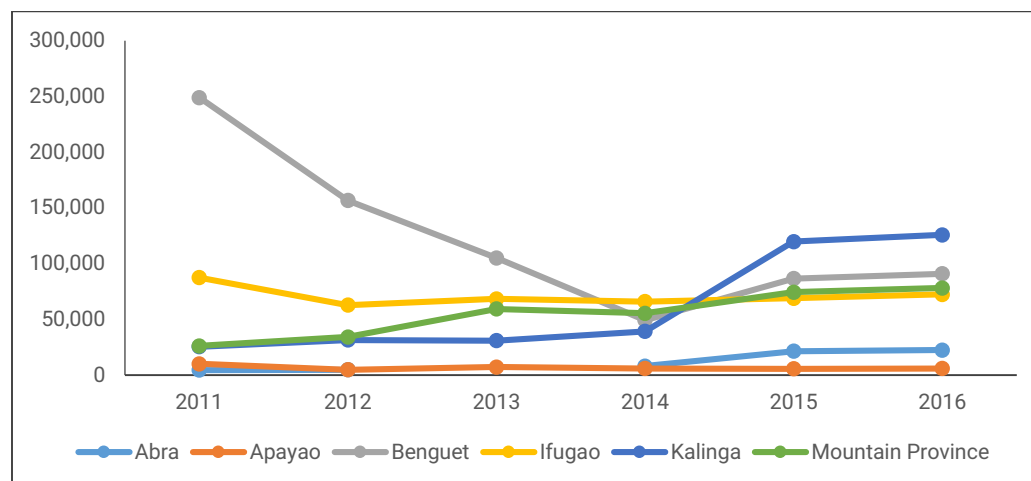
Source: DOT

Baguio City's arrivals exceeded one million by 2015. The notable jump in tourist arrivals in the city, especially day visitors, was observed particularly with the opening of the Tarlac–Pangasinan–La Union Expressway (TPLEX) which considerably reduced travel time from Metro Manila and Central and South Luzon regions. Meanwhile, increases in arrivals for the rest of the region were mostly conservative. Most remarkable among the provinces is the improvement observed for Kalinga, where arrivals leaped from 39,268 in 2014 to 119,794 in 2015 or an increase of 205 percent. The popularity of Kalinga in recent years was largely attributed to the sustained promotion and marketing of white water rafting in Chico River and to Apo Whang-Od, a local tattoo artist made famous through social media, who uses indigenous material and methods in her craft. Similarly, the municipality of Sagada in Mountain Province also experienced an unprecedented increase in tourist arrivals after the road leading to the municipality was repaired.

Improved figures for tourism for all provinces may be attributed to aggressive promotion during national and international tourism fairs, sustaining of tourism activities in the different provinces such as festivals, and continuing diversification and enhancement of tourist offerings. The DOT–DPWH convergence program, through which many tourism roads have been constructed and rehabilitated in recent years, also improved the accessibility of tourism destinations.

As the region's tourism industry has gotten more dynamic, its support activities in the services sector, particularly food and accommodation, transportation, retail, and recreational activities, have also gained strength despite global challenges such as inflation and the detrimental effects of climate change. With all of the provinces posting growing tourist numbers, most LGUs in the region have taken cognizance of the rising popularity of tourism and its benefits to attached local services, and have included tourism among their priority agenda.

**Figure 9.7 Tourist Arrivals, CAR Provinces Except Baguio City: 2011–2016**



Sources: DOT–CAR, Provincial Tourism Office – Benguet

However, the rapid growth of some of the region's cultural destinations was accompanied by equally hasty degradation of its sites and increasing commercialization of its indigenous practices. The enforcement of laws or ordinances that protect and preserve sites, rituals and traditions is weak, and in some cases, the ordinances have become outdated. The declaration of the Cordillera Rice Terraces as a world heritage site has stepped up preservation measures in as far as the terraces and the activities herein are concerned, since the identified sites in Ifugao have to strictly comply with requirements set by the UNESCO in order to maintain their status. In contrast, preservation efforts in other noteworthy sites in the region have so far been deficient.

Likewise, while tourist arrivals have invigorated business and commerce, especially in Baguio City, rapid development relative to the rest of the region has not always worked to the city's advantage in the long run. Even at present, the adverse consequences of high population and tourism density in the city is already being felt. Also, given CAR's insignificant numbers for tourism relative to that of other regions, it appears that the Cordilleras' vast potential for eco-tourism has not yet been fully explored. For one, even as the province of Apayao boasts of many unique and culture-rich offerings, its arrivals have remained insignificant through the years.

## Institutional Challenges

The number of coordinating and regulating agencies for both industry and services is as large and as diverse as the sectors themselves. This scenario, coupled with conflicting agency thrusts, makes coordination between and among concerned regulatory bodies more challenging. While inter-agency committees have been organized under the Regional Development Council (RDC) to bring together offices with related mandates, difficulties in reaching a consensus on policies are usually encountered, as is the case with DA, PEZA, NCIP, and DENR on land use and conversion. In relation, the slow resolution of conflicting land claims magnifies the risks of large-scale investors and delays the expansion and development of ecozones in the region.

# Strategic Framework

The strategic framework is anchored on the goal of laying down “a solid foundation for more inclusive growth, a high trust and resilient society and a globally competitive knowledge economy”. The region’s strength lies in the industry sector, with the regional economy primarily driven by manufacturing activities in the Baguio City Economic Zone (BCEZ). However, notwithstanding the substantial contribution of the manufacturing subsector in the region’s special economic zone to the GRDP, the role and potentials

of other subsectors and smaller industries in CAR should not be undermined. Likewise, sustaining and accelerating the growth of the services sector and tourism will increase available economic opportunities, further poverty alleviation in the region and allow for sustainable growth, especially as these sectors have created more jobs in the region compared to industry and have generated employment with higher productivity relative to agriculture.

## Targets

Table 9.4 represents the targets for this Plan period for industry and services. The shares of these sectors in the GRDP are expected to increase, with industry

catching up with services in terms of growth rate. Correspondingly, employment and labor productivity in CAR are also expected to improve.

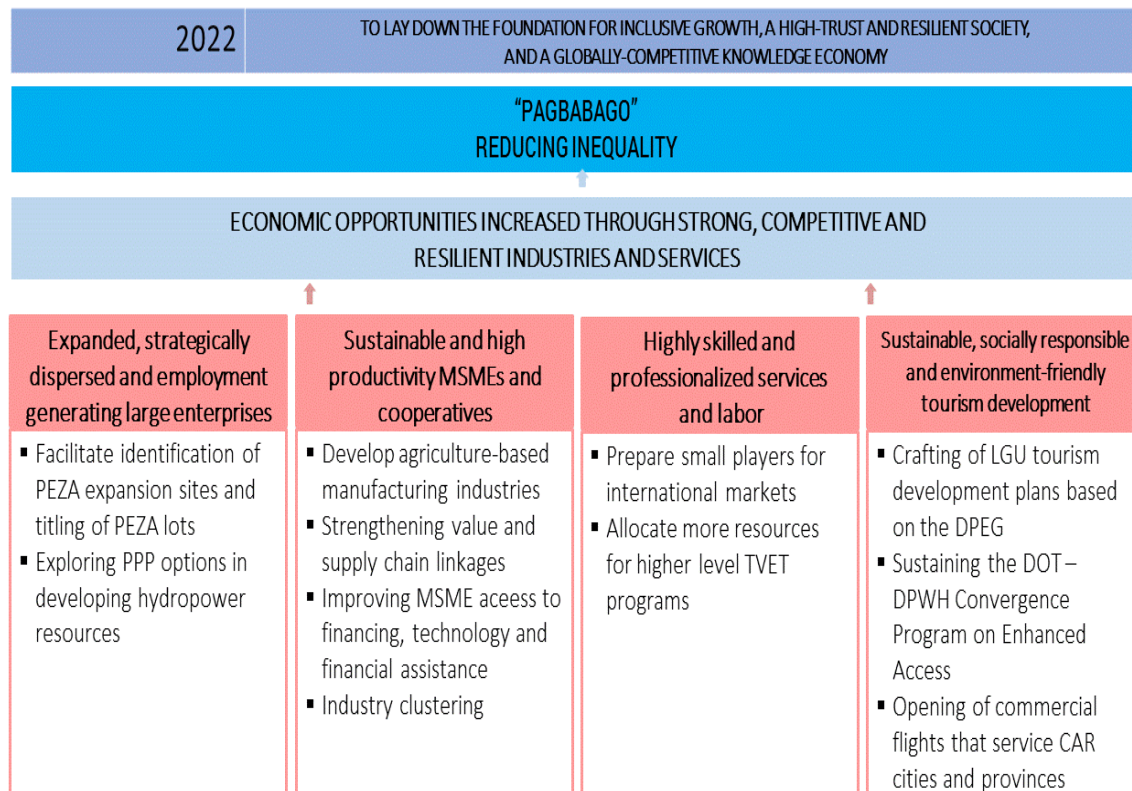


*Table 9.4 Plan Targets to Expand Economic Opportunities in Industry and Services, 2017-2022*

INDICATORS	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	
Share of industry sector in GVA increased (at constant 2000 prices)	2015	3%	Increased
Share of services sector in GVA increased (at 2000 prices)	2015	1.2%	Increased
Sustained positive growth of labor productivity of industry (at constant 2000 prices)	2015	(2.6)	Positive
Sustained positive growth of labor productivity of services (at constant 2000 prices)	2015	3.7	Positive
<b>Subsector Outcome 1: Expanded, Strategically Dispersed and Employment Generating Large Enterprises</b>			
Number of SEZ firms sustained	2016	37	Increased
Direct jobs generated	2016	13,566	Increased
SEZ Exports (in US\$)	2016	1,669,844,407.24	Increased
SEZ Investments (in PhpM)	2016	22,637.63	Increased
Investments in Stock Corporations (in PhpM)	2016	208.577	Increased
Investments in Partnerships (in PhpM)	2016	23.413	Increased
<b>Subsector Outcome 2: Highly Skilled and Professionalized Services and Labor</b>			
Number of graduates under the PQF (NC IV and Diploma)	2016	316	414
<b>Subsector Outcome 3: Sustainable and High Productivity MSMEs and Cooperatives</b>			
% of businesses that renewed their business name registrations in 5 years	2015	26%	38%
New MSMEs assisted	2016	505	862
Existing MSMEs assisted	2016	4,545	8,774
Direct jobs generated			58,800
Exports (in US\$M)	2016	3.38	3.65
Domestic Sales (in PhpM)	2016	1,059.31	1,876.63
Number of reporting cooperatives	2016	576	722
<b>Subsector Outcome 4: Sustainable, Socially Responsible and Environment Friendly Tourism Development</b>			
Tourist arrivals	2015	1,492,049	1,760,617

## Strategies

**Figure 9.8 Strategic Framework to Expand Economic Opportunities in Industry and Services, 2017 – 2022**



### Subsector Outcome 1: Expanded, strategically dispersed and employment generating large foreign and local investments

Technical assistance in the crafting of Local Investments and Incentives Codes (LIICs) will be provided for local governments through CAR's Regional Competitiveness Committee (RCC). LIICs need to be crafted by LGUs in order to institutionalize reforms that will enhance the ease of doing business, lower its cost, and identify priority industries in their respective jurisdictions. LIICs that clearly

discuss areas of investment, incentive packages, if any, and other pertinent considerations will go a long way in encouraging both local and foreign investments in the region. LIICs will also harmonize duplicated functions of LGUs and implementing agencies, and facilitate development of sector or industry-specific support programs, provided that consultations are undertaken and relevant inputs of all stakeholders are integrated. To further entice potential investors, comparative advantages, such as Benguet's low power rates, should be emphasized as

selling points in promotional materials and advocacy drives.

There is a need to make the most out of the presence of an operational and vibrant ecozone in the region by readying locations for expansion within CAR, in time to enjoy demand for the subsectors that it caters. In order to do so, the challenges that have delayed expansion efforts, such as the dispute involving land claimants within the proclaimed economic zones in Baguio City, and the delayed titling of industrial lots, need to be resolved. The development of viable ecozone sites for producers for domestic markets is also encouraged. With the current thrust of PEZA to establish an economic zone in every province and city, all CAR provinces will be given due consideration. Kalinga, with its vast available space and its capital Tabuk City's rapid development, shows remarkable potential as the next location for a special economic zone outside of the BLISTT. The possibility of operationalizing idle proclaimed ecozones, such as the Kelly Special Economic Zone in Itogon, Benguet, and the Abra Special Economic Zone in Tayum, may also be reviewed.

The identification of potential sites for ecozones in the region will be facilitated through the development of a regional investment map. Stronger networks with private organizations that may have data on viable plots of land, and public-private partnership (PPP) initiatives, will also accelerate the identification and development of possible ecozone sites. In the same light, intensified coordination with the identified members of the PEZA –

Baguio City Economic Zone (BCEZ) Technical Working Group (TWG), and with other potential partners like the Philippine Retirement Authority (PRA), will help BCEZ establish links with individuals who may be interested in investing or starting a business. To create more employment opportunities, the establishment of a local PEZA Institute that will make available training on skills that match industry requirements will ensure that capable manpower is sourced locally.

The Cordilleras' vast hydropower potential, if maximized, will be able to supply the needs of Northern Luzon, and will generate more jobs in the region. Venturing into hydropower generation is capital-intensive, but developed countries with commitments to reduce greenhouse emissions under the Kyoto Protocol are continually looking into more PPP ventures. Concerns regarding the potential harm that big dams can cause to the environment may be addressed through consultations with stakeholders and by giving the local communities a major role in the management of the region's water resources.

Mining, which has also generated employment and invigorated the economy of less prominent towns during its peak, like Itogon and Mankayan, needs to be more strictly regulated. Responsible methods that will reduce consumption of resources and minimize land and environmental disturbance have to be employed. Reclamation activities also have to be targeted for mined-out areas in the region. Coordination with large mining firms is critical in ensuring that sound

environmental plans and the needs and concerns of host communities are integrated in their corporate social responsibility programs. Free prior and informed consent (FPIC) and other provisions under the Declaration of Principles on Environmental Governance (DPEG) are indispensable requirements in undertaking economic activities that will potentially disrupt the host communities' way of life, like mining and hydropower development.

### Subsector Outcome 2: Highly skilled and professionalized services and labor

One of the defining features of ASEAN integration is trade liberalization, which applies not only to goods, but also to services. Liberalization has eased the entry of services from outside the country, and movement of goods and services will be continually facilitated as more laws that relax restrictions are passed. The present economic set-up has substantially increased consumer options and has stiffened competition among providers even in the region, making it necessary and imperative for the industry and services sectors to prepare for larger markets and to comply with international standards. International trade law advocacies and assistances provided by the DTI, its attached bureaus, and the DOST, will further the capacities especially of small players.

There is also a need to elevate the quality of both local and overseas Filipino labor in order to increase their opportunities here and abroad. Allocating more resources to the TVET program and to TVIs will spread income-earning opportunities across a

wider variety of fields and work settings in the country and overseas. Upgrading the skills and knowledge of labor, and ultimately professionalizing it by producing a higher percentage of NC III and above graduates, will entail better quality of elementary and high school education, increasing the number of TVIs that provide diploma, NC III and higher trainings, and allocating more scholarships for upper level trainings. Increased investments in state of the art facilities in universities, colleges and TVIs, and continual education and capacity upgrading of trainers and teaching personnel, will enable CAR's education institutions to produce competent graduates with increased mobility, resilience and earning capacity. Higher-level trainings should also give focus to equalizing gender disparities, as it was observed that, while the difference is relatively small, males in CAR have greater participation than women in high productivity industry and services subsectors.

### Subsector Outcome 3: Sustainable and high productivity MSMEs and cooperatives

MSME development has never been more urgent with the establishment of the ASEAN Economic Community, through which goods, services, labor, and investment are able to move more freely across the ten Southeast Asian member states. This scenario necessitates that local MSMEs be capacitated not only to innovate and increase the quantity and quality of their inputs to value chains, but also to withstand and thrive amidst market uncertainties.

With the DTI's Manufacturing Resurgence Program (MRP) and the DOST's Small Enterprise Technology Upgrading Program (SETUP), the productivity, especially of agriculture-based manufacturing industries, will be enhanced. In CAR, the food manufacturing sector comprises a large percentage of MSMEs assisted by both the DTI and the DOST. The subsector, as well as furniture and gifts, décor and houseware manufacture, are projected to establish themselves as stronger players in the coming years, as the MRP gains momentum, and the DOST-SETUP is sustained. New programs that will work toward improving MSME resilience will be launched, like "Project Kapatid," and business continuity management trainings. More Negosyo Centers will also be put up in addition to the 19 already in place in DTI offices and CAR LGUs.

Likewise, many other interventions that have been implemented during the previous planning period were found effective in strengthening the region's MSME sector, and continuing these programs will further enhance MSME performance in CAR. DTI and the DOST initiatives will still include production of information material, technical consultancy and business consultations, trainings and fora, market matching, trade fairs and missions, coaching and mentoring programs, product development, packaging and branding, technology provision and upgrading, and laboratory testing and calibration. Cooperatives in the region need to be included in capability building and support programs, in order to improve

their capacity to provide not only MSME assistance, but also to help in the delivery of other essential services. Infusion of new technologies through DOST and DA will also augment MSME and cooperative productivity and resilience.

Another effective strategy that had been previously implemented is industry clustering. Industry clustering strengthens forward and backward linkages in a value chain. Consolidation of small manufacturers should also be facilitated, in order for small producers to be able to cater to the requirements of large companies.

Lastly, improving access to financial assistance by holding financing fora that will match MSMEs with cooperatives and other existing financial programs, and disseminating information on financing institutions, will encourage would-be entrepreneurs, and increase the sustainability of MSMEs that are already in existence. Technical assistance in the preparation and completion of documentary requirements, which had already been undertaken by the DTI previously, will be continued, and is expected to improve with the Negosyo Centers. A review of criteria and repayment schemes for cost-sharing interventions like the DOST-SETUP also needs to be undertaken to make support programs more responsive to the needs and capacities especially of micro firms.



#### Subsector Outcome 4: Sustainable, socially responsible and environment friendly tourism development

The role of tourism in bringing to life service subsectors and even industry and agriculture should not be underestimated. Accommodation establishments in Baguio City, for instance, continue to multiply, but they are still mostly fully booked during peak seasons, like the Panagbenga Festival, Holy Week celebration, and Christmas. Similarly, food establishments have started to diversify in the rest of the CAR with the entry of visitors with different and wider-ranging preferences. Meanwhile, MSME products are mostly advertised as local handicrafts and delicacies with the tourist market in mind.

Programs and activities that will advance the tourism sector and balance development with preservation will be effectively implemented and monitored, if all CAR LGUs will formulate their own tourism development plans based on the DPEG. Plans should not compromise the region's environmental and cultural integrity in promoting and developing tourism. In crafting their tourism development plans, LGUs should partner not only with other government offices and stakeholders from the private sector, but with anthropologists and research institutions that have intensively studied the Cordilleran culture, as stated in the DPEG. Laws and ordinances for the protection of cultural and historical sites should also be crafted or updated by concerned LGUs in order to prevent desecration and arrest degradation. Care should be taken to ensure that infrastructure and facility designs do not

detract from the genuineness and overall feel of CAR's historically wealthy sites.

The Cordillera Region's edge is its rarity as an eco-cultural tourism destination, and local festivals are highly effective in showcasing its unique and vibrant ethnicity. The development of more meaningful festivals that will showcase the region's unique culture will balance tourism marketing with protection and preservation of the Cordilleran identity. In relation, the development of cultural facilities, such as museums, and of educational activities, like immersions, need to be undertaken. These activities, along with the capacitation of locals for tourist reception, will cultivate cultural appreciation among tourists, and highlight the role of locals in ensuring that tourism development does not compromise cultural preservation and environment protection.

Likewise, the persistent coordination for the opening of commercial flights in airports that service the region will usher in more guests. While Baguio City airport operations remain irregular, the region could make the most of the proximity of Clark International Airport (CRK) to promote CAR as a tourist destination. Partnering with CRK and transport service providers (i.e., bus lines) in the provision of direct transportation from Clark, will bring in more visitors. This, along with the continuation of the construction of tourism roads through the DPWH-DOT Convergence Program on Enhanced Access, will propel the growth of the tourism industry and its dependent enterprises.

The region should also prioritize LGU compliance to mandatory accreditation of tourist establishments. In addition, the consolidation and packaging of segmented tourism offers through tourism circuits will also maximize the Cordillera tourist experience. Tourist amenities and safety infrastructure, in consideration of the mountainous Cordilleran landscape, should also be put up or rehabilitated if their present conditions warrant repairs. The inclusion of trails and pathways improvement in the DPWH-DOT Convergence Program is expected to facilitate the upgrading of the region's tourist facilities.

Lastly, the accuracy of data on tourist arrivals will be enhanced by continuing capacitation of LGUs and accommodation establishments on the use of the Local Tourism Statistics System. In relation, a study of the carrying capacity of tourist destinations, if undertaken, will help ensure that tourism in the region remains regulated and sustainable.

### Cross-Cutting Strategy: Strengthening Coordination Between and Among Stakeholders

Collaborations between and among agencies tasked with overseeing and regulating the industry and services sectors need to be strengthened through more frequent coordination, and perceived conflicts between mandates have to be resolved. Monitoring mechanisms also need to be institutionalized and strengthened in order to ensure that proper implementation is undertaken, and that programs that have been initiated are being sustained. Support to industry associations, like the different chambers of commerce, also needs to be prioritized, in recognition of these groups' contribution to regional development.

# Legislative Agenda

*Table 9.5 Legislative Agenda to Expand Economic Opportunities in Industry and Services*

LEGISLATIVE AGENDA	RATIONALE
Review of RA 9178 (Barangay Micro Business Enterprise Law)	There might be a need to streamline procedures of simplify the requirements set under the law to encourage more small businesses to apply for the incentives.
Review of Proposed Amendments to RA 9520 (Philippine Cooperative Code of 2008)	The proposed removal of tax exemptions for cooperatives will weaken the sector and may have to be reconsidered.
Passage of HB 6921 (The BPO Workers' Welfare and Protection Act)	As the number of BPO workers continue to increase and more BPO firms put up businesses in the area, measures that will protect the workers' rights under the law and will address their unique circumstances need to be put in place.
Passage of HB 5343 (An Act Establishing the Autonomous Region of the Cordillera)	Cordillera autonomy will allow for the passage of laws that are better suited for the region, and will ensure that income generated from industry and services based in the region will flow back to CAR.
Institutionalization of the industry cluster approach	Legal basis for the establishment of industry clusters will clarify role ambiguities and will make the applicability of benefits and incentives more equitable.
Drafting of Municipal Ordinances mandating the submission of visitor data by accommodation establishments to the LGUs	The availability of accurate and reliable data on tourist arrivals will facilitate the conduct of carrying capacity studies and will help in planning and programming for sustainable tourism in the region.
Funding for the rehabilitation and reopening of the Baguio City airport for commercial flights	A local airport will be advantageous to tourism and business, as air travel reduces travel time and increases the region's accessibility.



10

Accelerating  
Human Capital  
Development



# Accelerating Human Capital Development

The region hopes to accelerate improvements in health, education, and income in the next six years. This is possible if inequalities in the access to opportunities for health, nutrition, lifelong learning and productive activities are reduced.

## Assessment and Challenges

### Nutrition and Health

Health and nutrition status in the region generally improved specifically in terms of maternal, infant and child mortality, prevalence of underweight among 0-5 years old, and the fight against major diseases.

**Significant reduction in the number of deaths of mothers, infants and under-five children were achieved.** Maternal mortality rate was decreased by almost 20 percentage points from 65 percent in 2010 to 44.77 percent in 2015, much lower than the 50 percent National Objectives for Health (NOH) target for the year.

Contributing to such achievement is the increasing Facility Based Delivery rate of the region from 68.24 percent in 2010 to

92.5 percent in 2015 surpassing the NOH target of 90 percent. Increasing number of accredited health facilities for Maternity Care Package (MCP) and birthing centers in the region as well as active tracking of pregnant and women of reproductive age also contributed in the reduction of maternal deaths in the region.

Targets were also surpassed for infant and under-five mortality rates in 2015. Infant mortality rate was at 10.91 percent, surpassing the set target of 17 percent while under-five mortality rate was at 15.14 percent versus the 25.5 percent target. However, when compared to 2010 rates, there were more infant and under-five children deaths in 2015 (Table 10.1).

*Table 10.1 Maternal, Infant and Under-5 Mortality Rates, CAR: 2010-2015*

Indicator	Baseline	Actual	2011	2012	2013	2014	2015
Maternal mortality rate (per 100,000 live births)	2010	65	62	71	65.87	49.65	45.07
Infant mortality rate (per 1,000 live births)	2010	9.03	10.68	10.34	9.77	8.16	10.98
Under-5 mortality rate (per 1,000 children aged 0-4)	2010	11.1	14.0	14.1	11.9	15.2	15.24

Source: DOH-CAR

The high prevalence of teenage pregnancy and low achievement in family planning challenge the region's achievements in maternal and children's health and nutrition. The 2013 Young Adult Fertility and Sexuality Survey (YAFSS) identified the Cordillera as the top region with the most number of teenage pregnancies nationwide. In 2015, the Commission on Population (PopCom) identified 3,839 teen pregnancies in the region. This could undermine the achievements in improving maternal and infant health. Teen age pregnancies can also limit developmental opportunities for teenage mothers and in some cases, teenage fathers.

For Family Planning, there was a 43 percent increase in the contraceptive prevalence rate (CPR) in CAR from 35.28 percent in 2010 to 50.51 percent in 2015. However, this falls short of the 65 percent target CPR for 2015.

**The Responsible Parenthood and Reproductive Health (RPRH) Law is the government's foundation for key programs and services to address teen pregnancy and promote family planning**

**but its implementation is being challenged.** In July 2015, the Supreme Court issued a temporary restraining order (TRO) on progestin subdermal implants and prohibited the Food and Drug Administration (FDA) from certifying and recertifying other family planning commodities. Such decision will affect the availability of modern contraceptives in the local market both public and private.

**Prevalence of underweight was reduced and low but stunting and prevalence of overweight are high in the region.** Fewer 0-5 years old children were underweight in 2015 with 4.45 percent against the almost 6 percent in 2010. Such prevalence rate is low compared to the national prevalence at 25.5 percent in 2015. Contributing to such achievement is the implementation of Supplementary Feeding Program in the region which served 43,870 (97.27% of the target) Day Care Children and 3,578 school children (100 percent of target) in 2015. It was shown that after 120 days of feeding, there was a 66.88 percent decrease in the number of underweight children.

However, the 2013 National Nutrition Survey showed that stunting was at 32.4

percent for 0-5 years old children which is considered high based on World Health Organization (WHO) standards. CAR also belongs to the top four regions with the highest prevalence rates for overweight and obesity in all age groups (pre-school children, school age children, adolescents and adults).

The implementation of nutrition programs is facing several challenges. The regional office of the National Nutrition Council (NNC) identifies the following as factors negatively affecting achievements in nutrition: (1) the lack of fully functional local nutrition committees in some LGUs; (2) low or no incentives given to the Barangay Nutrition Scholars; and (3) the lack of permanent position for Nutrition Action Officers.

**Target of fully immunized children remains unachieved.** Only 72.45 percent of one-year old children were fully immunized in 2015, far from the 90 percent target. Full immunization of children is one way of reducing the morbidity and deaths

of infants and children due to common diseases.

**Progress made in combating communicable diseases still missed targets.** The provinces of Benguet and Abra were declared malaria-free while Mountain Province is still awaiting official declaration on its malaria-free status.

On tuberculosis, 92 percent of patients who have completed the 6-month medication cycle were successfully treated. TB case detection rate improved to 70 percent in 2015 from the 32 percent in 2010. However, targets of 95 percent for success rate and 75 percent for detection rate were missed. According to the Department of Health (DOH), discontinuation of medication by patients due to felt side-effects is one reason for unsuccessful treatment.

**There has been a substantial increase in newly-diagnosed HIV cases.** The CAR is the 17<sup>th</sup> region with the highest HIV prevalence, a sudden increase from 0.03 percent prevalence in 2010 to 1.5 percent in November 2016 was noted (Table 10.2).

*Table 10.2 HIV Cases by Province/City, CAR*

Province/ City	1984-present	Jan-Nov 2016	
	HIV Cases	HIV Cases	Percentage
Abra	29	3	4.47
Apayao	8	3	4.47
Benguet	28	6	8.95
Baguio	216	53	79.10
Ifugao	6	1	1.49
Kalinga	4	1	1.49
Mountain Province	5	0	0
<b>Total</b>	<b>296</b>	<b>67</b>	<b>22.63</b>

Source: DOH-CAR

From 1984 to present, there were 296 reported cases in CAR with 67 new cases from January to November 2016. Across provinces, the table below shows that Baguio City has the highest prevalence rate at 79.10 percent as of November 2016.

More alarming is that in terms of age group, 52.23 percent of HIV cases in the region are ages 25-34 followed by the 25.37 percent of ages 15-24. In terms of sex, 95.52 percent of HIV cases in the region are males.

**“Triple burden of disease” is a public concern.** Communicable diseases are the top causes of morbidity while non-communicable diseases are the leading causes of mortality. However, as there is rapid urbanization and industrialization our country may also experience increase in the incidence of injuries, mental health, and alcohol and drug abuse.

**The region has limited facilities for drug abuse treatment and rehabilitation.** Drug dependents are encouraged to seek services from Drug Abuse Treatment and Rehabilitation Center (DATRCs). However, there is the lack of accredited residential DATRCs. The nearest facility is in Dagupan City which is mostly filled to capacity. Also, it only caters to male clients.

At the moment, Baguio General Hospital and Medical Center (BGHMC) provides non-residential treatment and rehabilitation services.

Drug Testing Laboratories (DTLs) are also important for the detection of drug dependency. As of November 2016, there are 19 DTLs accredited to provide drug testing services in the region. However, accredited DTLs are concentrated in urban areas and this poses a problem of access in the rural areas.

**Household access to safe water and sanitation remains low.** Less than half or 41.84 percent of households had access to safe water in 2015 far from the targeted 94 percent. However, this low performance is basically due to the change in the parameters used in testing water safety which is much more expensive. There is then the low compliance of LGUs for testing water safety.

More households also had sanitary toilet facilities in 2015 at 83.95 percent compared to the 79.53 percent during the previous year. However, this is still seven percent short of the 91 percent target.

## Basic, Higher and Technical Education

Achievements during the 2011-2016 plan period include implementation of major reforms in the education sector which aimed at increasing access to and improving quality of education. Major reforms include the universalization of Kindergarten and the transition from a 10-

year to a 12-year basic education program (K to 12).

### Basic Education

**Major reforms contextualize the education system for indigenous learners in the region.** In 2011, the DepEd implemented the Philippines' Response to

Indigenous Peoples' and Muslim Education (PRIME) Program which is a grant facility that helped in the development of learning materials, a culturally sensitive curriculum and training of teachers. Four CAR divisions qualified for the program including Apayao, Ifugao, Kalinga and Mountain Province.

Also in 2011, the long awaited policy framework for Indigenous People's Education (IPEd) was issued by virtue of DepEd Order 62, s. 2011, "Adopting the National Indigenous Peoples Education Framework." DO 62 unified policy directions and provided basis for institutional support to the PRIME Program and other initiatives related to IP learners. Prior to the DO 62, the region has been inculcating indigenous knowledge and practices (IKSPs) in the teaching-learning process through the years but the issuance gives this importance.

CAR was included in the pioneering group of five implementing regions of the Learning Resource Management and Development System (LRMDS). This is due to its potential to contribute indigenized education resources and suggestions on how to make the LRMDS to be culture-sensitive and responsive to IP learners. To date, 60 contextualized materials are already available in the LRMDS.

The following statements, which served as inputs in the formulation of the Regional Policy Directions for IP Education, characterize the IP Education in CAR.

*"IP Education in CAR:*

- *is ancestral domain-based and forwards the promotion,*

*protection and preservation of the ancestral domain. "Land is life".*

- *Promotes the wellbeing of the ancestral domain on which the wellbeing of all learners are founded on.*
- *Promotes intergenerational care and concern. Elders' participation is essential while recognizing children as the future culture-bearer.*
- *Embodies Indigenous Knowledge Systems, Practices and Spiritualities (IKSPS) and inculcates the care and valuing of cultural heritage. IKSPS are to be continuously developed in ways that promote the wellbeing of the ancestral domain.*
- *Promotes self-determination in the context of contributing to the growth of the Philippine nation. It also is culturally-inclusive, recognizing that CAR and the nation as a whole is of diverse cultures." (This is Home by DepEd-CAR, 2015).*

Milestones reached in the implementation of the IP Education in the region from 2011-2016 includes formulation of IP Education Framework in all divisions and the Regional Education Development Plan (REDP). Towards the institutionalization of the participation of elders and community elders in education management, cultural standards were refined and orthographies by different tribal communities were developed and validated. Platforms of cooperation for IP Education were also established in all divisions.

Pilot implementation of IP Education Curriculum in selected pilot schools (2015-2016) were done such as the launching of and implementation of Grade 11 in the Special Secondary School for the Conservation of the Ifugao Rice Terraces in Gohang National High School, Banaue, Ifugao.

**Given the cultural dynamics in the region, CAR has been coping with the demands of the K to 12 Program alongside the Indigenous Peoples Education (IPED) Roadmap.** One of the major challenges being encountered by indigenous communities today, especially in areas of CAR that are rapidly urbanizing like Baguio City, is how to keep the sense of *ili* (home and community) real and alive despite the changes in the economic

dimension of many communities, the increasing migration to urbanizing center, and the encroaching influence of an urban lifestyle. Given the changes in community dynamics, there is the challenge on how the IPED contributes in instilling among Cordillera learners the fundamental relationships in the *ili* while enabling them to engage the influences from the outside that affect community relationships.

To increase understanding among learners, the Mother Tongue Based-Multilingual Education (MTB-MLE) Program was implemented in the region. A total of 21 languages are spoken and used as a medium of instruction regionwide depending on the languages most commonly spoken in each province (Table 10.3)

**Table 10.3 Languages Spoken as Medium of Instruction by Province, CAR**

Division	Languages Spoken
Abra	Ilokano, Maeng, Inlaud, Masadit, Adasan
Apayao	Ilokano, Isnag
Baguio	Tagalog, Ilokano, Kankanaey
Benguet	Kankanaey, Ilokano, Ibaloi, Kalanguya, Karao
Ifugao	Tuwali, Ilokano, Ayangan, Henanga, Kalanguya
Kalinga	Ilokano, Limos, Whinuthut, Tinongrayan, Biga
Mountain Province	Kankanaey, Ilokano, Finontok, Sinadanga, Balangao

Source: DepEd-CAR

**Critical basic education indicators generally showed improvement in the last six years.** Simple and functional literacy rate in the region are at high 96.7 percent and 92.8 percent as of 2012.

On basic education indicators, participation rate or the ratio of school age children who are in school compared to the total population of children in the same age group was at 92 percent in the elementary

level and 71 percent in the secondary level during the SY 2015-2016.

In terms of completion rate, there were more elementary pupils (86.22%) in SY 2015-2016 who were able to complete the school year from enrolment to closing compared to the 62.79 completion rate in 2011. Completion rate in the secondary level still needs improvement with only 69.9 percent during the same school year.



Cohort survival rate or those who were able to graduate on time given the prescribed number of years in both elementary and secondary levels improved from 2010 to 2016. Elementary cohort survival rate improved from 64 percent in 2010 to a high 91 percent in SY 2015-2016 while secondary survival rate was from 63 percent in 2010 to 83 percent in SY 2015-2016.

**When disaggregated by sex, male learners underperform in basic**

**education indicators in both the elementary and secondary levels.** While efficiency rates have improved, comparison between sexes showed that boys are performing poorly compared to girls. This is true in terms of participation, completion and cohort survival rate in both the elementary and secondary levels in SY 2015-2016 but the difference is more evident in the secondary level (Table 10.4).

*Table 10.4 Participation, Completion and Cohort Survival Rates (In percent), CAR: SY 2015-2016*

Level	Participation Rate			Completion Rate			Cohort Survival Rate		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Elementary	91.36	93.05	<b>92.18</b>	83.67	89.11	<b>86.22</b>	88.87	93.52	<b>91.04</b>
Secondary	66.34	76.51	<b>71.32</b>	62.98	77.25	<b>69.97</b>	75.26	90.64	<b>82.80</b>

Source: DepEd-CAR

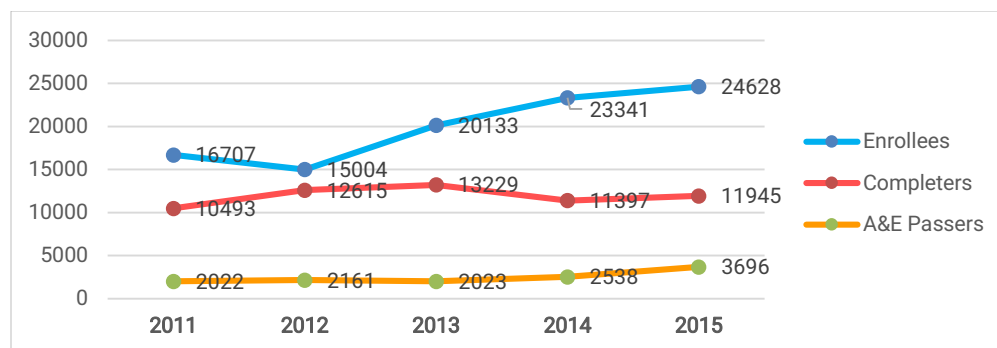
In terms of participation rate, female learners perform better by two percent than male learners in the elementary level and 10 percent in the secondary level. Female learners are better in terms of completion rate by five percent in the elementary level and by 14 percent in the secondary level. On cohort survival rate, female learners are higher by five percent in the elementary and by 15 percent in the secondary level.

**Low performance in National Achievement Tests.** National Achievement Test (NAT) Rating which indicates the mastery of pupils/students of basic core competencies improved only by six percent in the elementary level and by a minimal 0.6 percent in the secondary level. As of 2015, NAT rating for the elementary level was at 69.79 percent while rating for secondary level was at 49.73 percent.

**Opportunities for education was improved through the Alternative Learning System (ALS) Program.** The ALS Program is targeted for those who do not have the chance to attend and finish formal basic education. It provides all Filipinos the chance to have access to and complete basic education in a mode that fits their distinct situations and needs.

In the region, there had been an increase in the number of ALS enrollees, completers and Accreditation and Equivalency (A&E) passers from 2011 to 2015 (Figure 10.1). There was also an increase in the number of ALS mobile teachers in the region from 85 mobile teachers in 2011 to 178 teachers in 2016.

**Figure 10.1 Number of Alternative Learning Ssystem Enrollees, Completers and Accreditation and Equivalency Passers, CAR: 2011-2016**



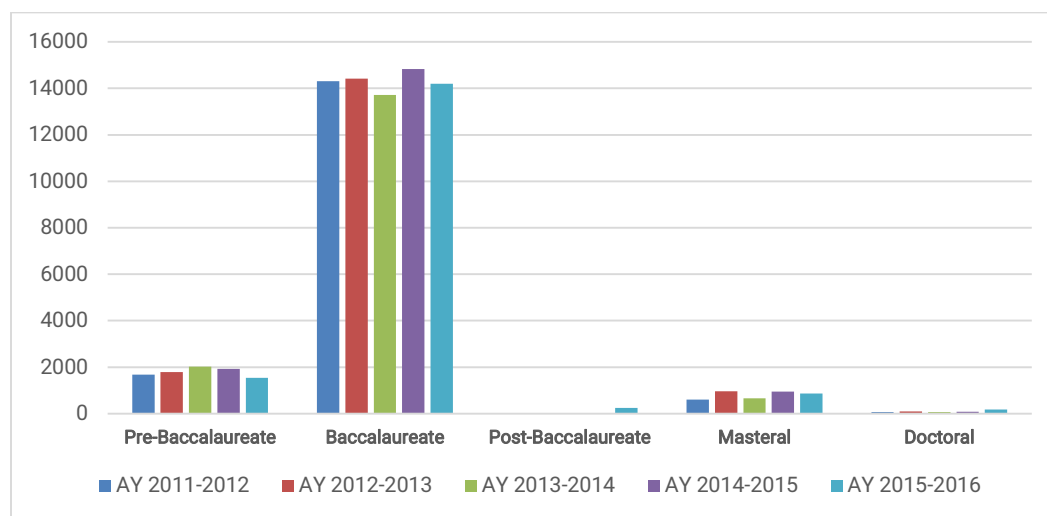
Source: DepEd-CAR

### Higher and Technical Education

The region sustained its achievements in improving quality of higher education in line with being the Prime Education Center in North Luzon. Improvements in higher education is indicated by the increasing number of higher education graduates, improvement in licensure examination passing rate, and improvements in the quality of Higher Education Institutes (HEIs) and their faculty.

On higher education indicators, graduates continue to increase with a total of 17, 031 graduates in Academic Year (AY) 2015-2016. 83 percent of the graduates are from the baccalaureate level as of AY 2015-2016 while the graduates from the post-baccalaureate, masteral and doctoral level showed an increase from 2011 to 2016 (Figure 10.2). Women graduates consistently outnumber the number of men graduates from 2011 to 2016 with 62 percent of the graduates in AY 2015-2016 are women.

**Figure 10.2 Higher Education Graduates by Program Level, CAR: 2011-2016**



Source: CHED-CAR

Another measure of quality education is the passing rate of graduates in licensure examinations. Seven CAR universities/colleges were among top performing schools nationwide in professional examinations in 2015, two of which are state universities. The 2015 CAR Licensure Examination Regional Passing Rate (LERPR) of 55.34 percent improved by nine percentage points when compared to regional passing rate in 2010. It has been significantly higher than the average national passing rate at 39.18 percent in 2015.

High passing rates were recorded in certain professions including Medical Technologist (90.60%), Social Worker (77.58%), Electronics Technician (71.75%), Real Estate Broker (67.27%), Criminologist (64.79%), Pharmacist (63.83%), and Professional Teachers (56.63%).

To improve quality of tertiary education, HEIs seek accreditation to keep themselves in check with standards. As of AY 2015-2016, almost 59 percent or 33 of the 56 HEIs in the region have accredited programs, considerably lower than that of Regions I and II with 76 percent and 89 percent. In terms of the level of accreditation, 26 percent has Level I, 29 percent has Level II, and 32 percent has Level III while only two percent has Level IV accreditation. The remaining 11 percent are those with candidate status or still preparing for initial accreditation.

The Center of Excellence (COE) and Center of Development (COD) project attempts to identify the nerve center of a network of strong and stable universities and the development of satellite institutions in the various regions of the country. These

centers were selected for having high levels of standard in the quality of their institution, research and extension services. They provide institutional leadership in all aspects of development in their specific areas of discipline.

In the region, five HEIs have COEs and CODs two of which are SUCs and three are private HEIs. The BSU's Agriculture Program and Nutrition and Dietetics Program were identified as CODs and its Teacher Education was identified as COE. SLU has eight CODs (Business Administration, Chemical Engineering, Civil Engineering, Electrical Engineering, Entrepreneurship, Mechanical Engineering, Medical Technology/Medical Laboratory Science, Mining Engineering) and three Centers of Excellence (Information Technology, Nursing, and Teacher Education). The UB has a COD on Teacher Education and COE on Criminology. The UC has COEs on Criminology, Information Technology, and Teacher Education. The UP-Baguio has CODs in Biology, Mathematics and Physics.

Also, some HEIs were granted autonomous status due to their demonstrated high level of institutional quality and program excellence. These are the Saint Louis University (SLU), University of the Cordilleras (UC), and the University of Baguio (UB). Meanwhile, the Kalinga Apayao State College (KASC) was converted to university status, now being the Kalinga State University (KSU).

It is expected also that quality of higher education becomes better with higher educational credentials of the faculty of HEIs. As of AY 2015-2016, 33.39 percent of

HEI faculty are Master's Degree holders, and about 13 percent are Doctoral Degree holders.

**The higher education system is coping up with basic education reforms.** The Kto12 curriculum in basic education will inevitably impact higher education in the Philippines on two important fronts: the curriculum, and the people working in the higher education sector as their will be low enrollment in colleges and universities nationwide during the transition period. In line with this, CHED had been actively participating in Kto12 implementation in terms of:

- (1) curriculum consultations towards designing and revising the Kto12 curriculum;
- (2) teacher training and education through the development of teacher education curricula of HEI institutions to ensure that the teachers of the next generation are equipped to teach young Filipinos under the new Kto12 system;
- (3) career guidance and counseling; and
- (4) formulating and implementing strategies to ensure a smooth transition into the new Kto12 system which includes making sure that the college curriculum is revised to complement the new Kto12 curriculum.

CHED is also mandated to implement strategies to protect higher education institutions and their employees from severe losses during the transition.

The Kto12 Implementing Rules and Regulations (IRR) also enjoin the CHED to review SUC financing policy framework to: optimize the use of government resources; develop a contingency plan given that the low number of graduates during the transition period will mean reduced human resources; and to uphold educational institutions and their employees.

**On Technical Vocational Education and Training (TVET), the high employability and competitiveness of TVET graduates removed the stigma of blue-collar work and increased the base of interested enrollees.** The number of TVET graduates also increased by 71 percent from 2010 to 2015. Those who pass the national certification assessment improved from 75 percent in 2010 to 82.08 percent in 2015. Most importantly, employability of TVET graduates significantly improved from 30 percent in 2010 to 72 percent in 2013.

**TVET graduates are mostly of National Certificate (NC) Levels I and II.** In 2016, a total of 20,013 TVET graduates were recorded from NC I to Trainers Methodology Level 1 (Table 10.5). Of these graduates, 93 percent are graduates of NC I and II levels while only 7 percent are graduates of NCIII, IV and Trainers Methodology Level 1.

**Table 10.5 TVET Graduates by Level, CAR: 2016**

Level	CAR
NC I	1,931
NC II	16,758
NC III	907
NC IV	135
TRAINER'S METHODOLOGY LEVEL 1	282
<b>Total</b>	<b>20,013</b>

Source: TESDA-CAR

**Several cross-cutting concerns are being encountered in the delivery of technical and vocational education.** These include: inadequate training facilities, equipment and lack of qualified trainers. Moreover, there is the need to capacitate the TechVoc institutions to offer higher level qualifications (NC III to diploma).

**Financial barriers for skills training and higher education were bridged by scholarships, grants, and closer partnerships with employers.** As of 2015, there were 388 full scholars and 157 half-merit scholars under the Student Financial Assistance Program (StuFAP). For the Study Now, Pay Later Program, there were 72 beneficiaries in 2015. However, repayment rate for the program is less than 10 percent. The implementation of the UniFast is hoped to solve the poor harmonization and complementation of program offerings, low repayment of student loans, and inefficient targeting of beneficiaries.

For TVET, access was enhanced through scholarships, learnership and community-based TVET which were made possible by the growing network of partners including LGUs, industry and TVET providers. 349 benefitted from the Private Education Student Financial Assistance (PESFA) in 2015 while 3,726 availed of the Training for Work Scholarship Program (TWSP). For

TVET providers, there were 123 newly registered programs in 2015, 91 accredited assessment centers, 150 accredited National TVET Trainer Certificate (NTTC) holders, and 37 TVIs with registered programs.

**Interventions to ensure continuous skills enhancement were also put into place as this leads to improved employability, higher productivity and global competitiveness.** One significant achievement is the institutionalization of the Philippines Qualifications Framework (PQF) through EO 83 s2012. It aims to facilitate movement of individuals from TVET to Higher Education and vice versa. It will enable students to immediately qualify for a well-paying job and provide opportunities for continuous skills and enhancement.

To ensure global competitiveness and thus mobility of Filipino professionals within the ASEAN region, seven Mutual Recognition Agreements (MRAs) had been signed covering Medicine, Nursing, Dentistry, Surveying, Accountancy, Engineering and Architecture. To implement these MRAs, Regional Competitiveness Roadmaps are to be prepared for each profession but as of 2015, only the nursing profession has a regional roadmap. Also, there are still no professionals in the ASEAN MRA Registry and APEC Registry which is important in

the context of liberalization of the labor market in the ASEAN.

## Labor Policies

**The high employment rate in the region was sustained at an average 95 percent between 2010 and 2015.** As such, the unemployment rate was at average five percent with the lowest rates recorded in 2013 (4.6%) and in 2015 (4.8%) (Table 10.5).

**The challenge of reducing the underemployment rate continues which was at an average 15.7 percent, with the highest rate recorded in 2015 at 20.8 percent.** The high underemployment rate reflects the poor quality of jobs being generated as the underemployed include all employed persons who express the desire to have additional hours of work in their present job or an additional job, or to have a new job with longer working hours.

**Most of the employed are in the agriculture sector.** Contributing to the high underemployment is that almost half of the employed are in the agriculture sector mostly located in the rural and hinterland areas in the region where work is seasonal or where wages remain low (Table 10.5). Also, even as the number of wage and salary workers has increased over the years, the number of unpaid family workers has not significantly improved.

**Low labor productivity in the agriculture sector.** Seeming disjoint in the region's sources of growth and employment is reflected in terms of labor productivity. Between 2010 and 2015, labor productivity in industry was fourfold that of services and twentyfold that of agriculture (Table 10.6). This signifies the need to improve either the productivity of the agriculture and services sectors or to increase labor absorption in industry.

**Table 10.6 Employment Statistics and Labor Productivity by Major Sector, CAR: 2010-2015**

Industry	2010 Baseline	2011	2012	2013	2014	2015	Average 2010- 2015
Employment Rate (In percent)	94.9	95.0	94.5	95.4	94.5	95.2	<b>94.9</b>
Unemployment Rate (In percent)	5.1	5.0	5.5	4.6	5.5	4.8	<b>5.1</b>
Underemployment Rate (In percent)	15.7	14.6	15.5	14.1	13.3	20.8	<b>15.7</b>
<b>Employment by Major Sector (In thousand persons)</b>							
Total	707	729	726	735	741	759	<b>733</b>
Agriculture	375	366	351	348	362	366	<b>361</b>
Industry	78	86	90	96	85	92	<b>88</b>
Services	255	277	287	291	295	300	<b>284</b>
<b>Employment by Class of Worker</b>							
Wage & salary workers	274	285	317	317	309	339	<b>307</b>
Own account workers	250	270	246	260	260	254	<b>257</b>
Unpaid family worker	183	175	164	158	173	166	<b>170</b>
<b>Labor Productivity by Major Sector (In pesos)</b>							
Agriculture	34,781	35,773	37,265	38,055	36,461	34,587	<b>36,154</b>
Industry	813,423	739,977	679,400	663,302	768,765	732,870	<b>732,956</b>
Services	171,161	162,487	153,359	163,955	169,963	178,010	<b>166,489</b>

Notes: Estimates as of August 2016. Totals may not add up due to rounding.

Source: PSA

## Strategic Framework

The CAR Regional Development Plan 2017-2022 follows the Philippine Development Plan's aim to reduce inequalities in human development outcomes. In particular, it aims to improve nutrition and health for all, ensure lifelong learning opportunities for all, and increase income-earning ability of Filipinos.

### Targets

*Table 10.7 Plan Targets to Improve Nutrition and Health (Core Indicators), 2017-2022*

INDICATOR	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	
Life Expectancy at Birth			
Male	2011-2015	64.97	69.17
Female		73.38	74.58
Modern Contraceptive Prevalence Rate	2015	50.51	65
Maternal mortality rate (per 100,000 live births)	2015	44.77	52
Infant mortality rate (per 1,000 live births)	2015	10.91	15
Under-5 mortality rate (per 1,000 children aged 0-4)	2015	15.14	22
Prevalence of stunting among under-five children	2016	13.82	10.36
Prevalence of wasting among under-5 children	2016	2.60	2.30
HIV prevalence rate	2015	1.56	<1
TB success rate (TB cure rate)	2015	92	90*
TB case detection (all forms)	2010	70	90

\*NOH target

*Table 10.8 Plan Targets to Ensure Lifelong Learning Opportunities for All (Core Indicators), 2017-2022*

INDICATOR	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	
Participation Rate/Net Enrollment Rate			
Elementary	SY 2015-2016	92.18	102.54
Secondary		71.32	105.89
Completion Rate			
Elementary	SY 2015-2016	86.22	100
Secondary		69.77	100
National Achievement Test Rating (Achievement Rate)			
Elementary	SY 2014-2015	69.79	77.90
Secondary		49.73	52.41
ALS Completers as to Competency	2016	12,380	13,142



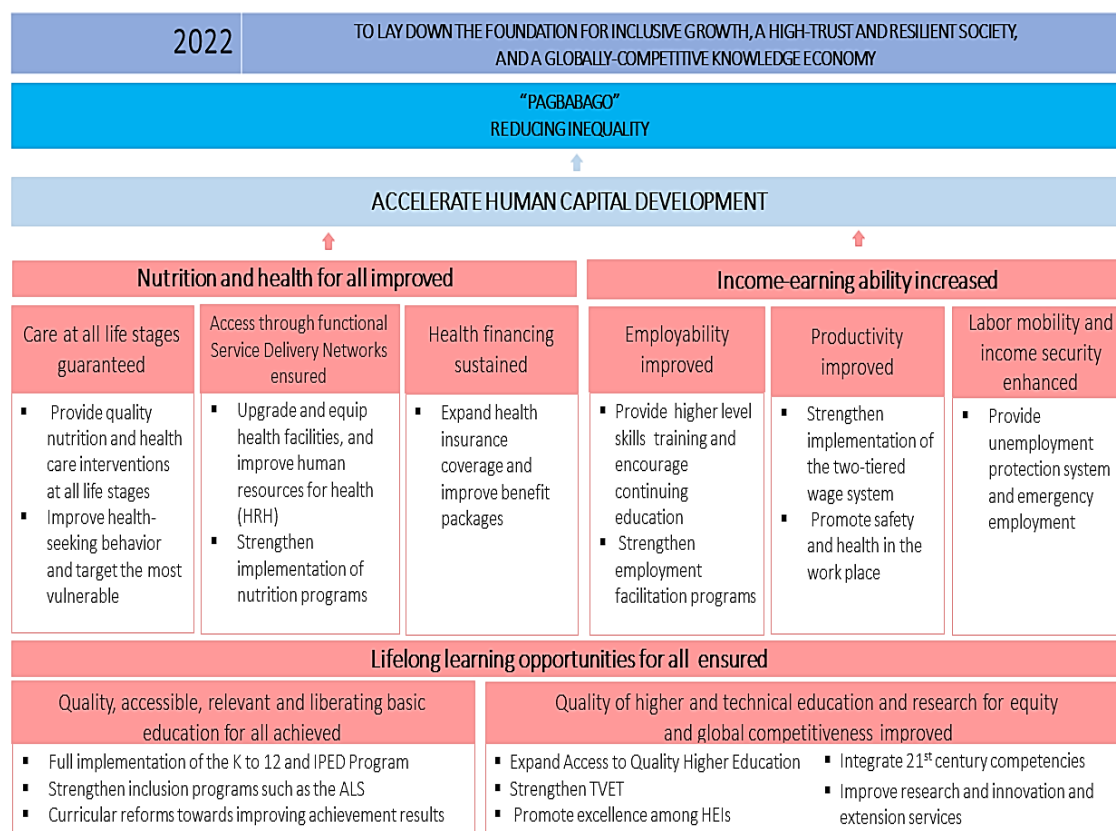
ALS A&E Passers (Graduates)	2015	3,696	3,923
Percentage of ALS passers versus takers	2015	57	60.51
Percentage of tertiary graduates in science, engineering, manufacturing and construction	AY 2015-2016	1, 517	2,032.92
Percentage of ETEEAP graduates	AY 2015-2016	101	135.4
TVET Certification Rate	2015	82.08	Increase
TVET Employment Rate	2013	71.6	increase
Licensure Examination Regional Passing Rate	2012-2016 (average)	51.61	51.61

*Table 10.9 Plan Targets to Increase Income Earning Ability (Core Indicators), 2017-2022*

INDICATOR	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	
Employment Rate	2015	95.2	increase
Unemployment Rate	2015	4.8	decrease
Underemployment Rate	2015	20.8	decrease
Labor Productivity by Major Sector (In pesos)	2015		increase
Agriculture		34,587	
Industry		732,870	
Services		178,010	
Frequency rate of fatal and non-fatal occupational injuries	To be identified		
Labor force participation rate of women	2015	56	increase

## Strategies

**Figure 10.3 Strategic Framework towards Accelerating Human Capital Development**



To improve nutrition and health for all, the CAR Regional Development Plan 2017-2022 seeks to guarantee care at all life stages, ensure access to functional service delivery network, and sustain financing for health. To ensure lifelong learning opportunities, the Plan seeks to achieve quality, accessible, relevant, and liberating

basic education for all, and improve the quality of higher and technical education and research for equity and global competitiveness. Moreover, to increase income-earning ability of Filipinos, the Plan seeks to improve employability and productivity and to enhance labor mobility and income security.

## Sector Outcome 1: Nutrition and health for all improved

Nutrition and health in the region can be further improved through ensuring care at all life stages, ensuring access to functional service delivery networks, and through sustaining health financing.

### Sub-sector Outcome 1: Care at all life stages guaranteed

**Provide quality nutrition and health care interventions at all life stages.** All shall have access to quality nutrition and health services.

The region's achievements in reducing maternal, infant and children's death can be sustained by giving special attention to their health as these stages are crucial in one's early development and would greatly affect one's health and nutrition in later years of life. Facility based delivery should be ensured for pregnant mothers to avail of pre-natal and post-natal services.

To ensure proper nutrition, exclusive breastfeeding, complementary feeding, food and micronutrient supplementation, and immunization will be given for the first 1,000 days of life. Addressing the high prevalence of stunting and overweight in the region shall be the focus of nutrition programs.

For adolescents' health, implementation of existing Adolescent Health and Youth Development (AHYD) Programs will be harmonized. The successful implementation and harmonization of AHYD Programs can contribute in the prevention of risky behaviors among teens which results to high teen age pregnancy, drug abuse, HIV AIDS and poor health.

Full implementation of the RPRH Law will ensure access to sexual and reproductive health services to all. Such will meet the need of couples for family planning methods in order to achieve their desired family size and to address the high prevalence of teen age pregnancy.

On communicable diseases, focus shall be given to HIV, tuberculosis, dengue and the elimination of malaria. Non-communicable diseases especially top causes of mortality such as cancer, diabetes, and heart disease will be addressed along with their risk factors. Interventions to reduce injuries and substance abuse shall be given priority together with interventions for addressing mental illness.

**Improve health-seeking behavior and target the most vulnerable.** Information dissemination and education are effective means of increasing health-seeking behavior. Anti-illegal drugs, reproductive health, and disaster awareness shall then be purposely integrated in the education curriculum.

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

**Upgrade and equip health facilities.** The topography and the dispersed settlements in the region make delivery of health and nutrition services a challenge. Adequate health facilities shall be established and equipped to cater to the needs of all the people in the region especially in Geographically Isolated and Disadvantaged Areas (GIDA). The number of accredited health facilities for Maternity Care Package

(MCP) and birthing centers shall be increased in the region.

Drug rehabilitation centers and other facilities such as accredited drug testing laboratories shall be established to support the campaign against illegal drugs.

Household access to safe water and sanitation shall also be improved by making water-testing more affordable to LGUs.

**Capacitate human resources for health and nutrition.** The region needs to strengthen implementation of nutrition programs by capacitating local nutrition action officers and updating low providing benefits for Barangay Nutrition Scholars (BNS). Full time local nutrition action officers shall be designated and provided with adequate office and staff support that include district/city nutrition coordinators. This is because the Regional Nutrition Evaluation Team (RNET) noted that the

provinces and municipalities with high malnutrition rate are the areas without permanent or full-time staff to oversee the implementation of the nutrition programs in their locality. The low providing benefits of the BNS also needs to be updated specially that they are at the forefront of the implementation and monitoring of nutrition programs in the different barangays.

### Sub-sector Outcome 3: Health financing sustained

**Achieve and sustain a 100 percent PhilHealth coverage and improve benefit packages.** The National Health Insurance Program (NHIP) will continue to provide financial risk protection to ensure that every Filipino will be a PhilHealth member. New benefits packages will be developed and existing ones may be expanded to lower the members' out-of-pocket costs.

## Sector Outcome 2: Lifelong learning opportunities for all ensured

Lifelong learning will be ensured to promote personal and national development. Quality of basic education shall be improved and shall be accessible, relevant and liberating for all learners. Higher education shall also focus on equity, integrating 21<sup>st</sup> Century skills, improving quality of higher education institutions and promoting global competitiveness of graduates.

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

**Ensure full implementation of the Kto12 program.** Successful implementation of the Kto12 program entails fast construction of Senior High School buildings, hiring and retooling of teachers, as well as ensuring sufficiency of learning materials and physical facilities. The limited offerings of tracks in small Senior High Schools also need to be expanded to provide more options for students.

Successful implementation of Kto12 Transition programs shall adequately address concerns of Higher Education Institutions (HEIs) in order to ensure smooth transition to Kto12 and to upgrade the quality of Philippine higher education by allowing our colleges and universities to innovate and grow during the transition.

**Strengthen inclusion and alternative learning programs such as the Alternative Learning System (ALS).** Access to education can be further improved through alternative and non-formal learning systems such as the ALS. These needs to be intensified and expanded to enable those who are not in the formal education system to complete basic education and acquire lifelong learning. Schools of living traditions shall also be established and sustained in the region so as to ensure cultural education.

**Continue curricular reforms towards improving achievement results.** Poor performance of boys or male learners in the region can be addressed by making the curriculum more gender-responsive and relevant by contextualizing and localizing lessons. The science and technology curriculum will also be enhanced to foster innovation and creative imagination. Emphasis will also be given to culture and arts, drug abuse prevention, reproductive health, gender, environmental awareness, disaster risk reduction and management, and climate-change.

## **Sub-sector Outcome 2: Quality of higher and technical education and research for equity and global competitiveness improved**

**Expand Access to Quality Higher Education.** Sufficient funding and effective mechanisms for the implementation of the Unified Student Financial Assistance System for Tertiary Education (UniFAST) shall be ensured as it is the primary vehicle for equitable access to college or university education among poor and disadvantaged young Filipinos.

To ensure continuous quality of higher education, more HEIs should be encouraged to seek for accreditation of their programs and to pursue higher level accreditation (levels III and IV). This would require high class faculty development program, outstanding performance of graduates in licensure exams, strong support for research and publication, and strong linkages with other partners locally and globally.

**Integrate 21<sup>st</sup> century competencies.** A shift in what is regarded as key indicators for success was brought about by changes in economic, technological and social contexts in the 21<sup>st</sup> century. Traditionally, emphasis of employers was on cognitive competencies in critical thinking, analysis, and problem solving. However, interpersonal and intrapersonal competencies have become more important and employers are increasingly valuing “soft” skills such as teamwork and leadership skills and other “people skills”. The education system shall also then shift towards the development of these skills and values.

**Strengthen TechVoc Education Programs.** The adoption of the Philippine Qualifications Framework has made it imperative for TVIs to upgrade their course offerings to higher NC levels. With majority of TVIs in the region offering until NC II level courses, there is the need to upgrade into NC III to diploma courses.

Also, TVET trainers shall be given more opportunities for industry immersion and

capability building on curriculum development, capability building, and program development. On the part of the Technical Vocational Institutions (TVIs), they shall be incentivized to invest more on TVET in terms of trainer development, upgrading of tools/facilities/equipment and institutionalization of their quality management system.

## Sector Outcome 3: Income-earning ability increased

Raising labor demand and employment generation in agriculture, industry and services are discussed in Chapters 9 and 10. This Chapter will then focus on labor supply strategies to raise the quality of the region's human resource thereby increasing the income-earning ability of the Cordillerans.

### Sub-sector Outcome 1: Employability improved

**Provide higher level skills training and encourage continuing education.** Higher education institutions and technical education providers shall be adequately equipped with facilities and qualified trainers towards offering higher level qualifications (NC III to diploma). This is in support to the region's position as an education center in Northern Luzon.

**Strengthen employment facilitation programs.** Assistance to workers entering the labor market, especially first-timers, will be strengthened. Career advocacy, coaching, and counseling will be enhanced, both for those seeking employment locally or overseas. Online services for OFs should also be included.

In the region, there is the need to institutionalize Public Employment Services Offices (PESOs) with only 17 fully institutionalized PESOs out of 84 LGUs in the region. Institutionalization of PESOs will create a separate office under the office of the mayor or governor manned by a PESO manager and staff. It will have its own office budget and shall be the official link of Bureau of Labor Employment (BLE) and DOLE to the local chief executives.

### Sub-sector Outcome 2: Productivity improved

**Strengthen implementation of the two-tiered wage system.** The two-tiered wage system will be continuously implemented as an approach to protect minimum wage earners against salaries that are lower than the prescribed amount and to encourage efficiency and effective performance and behavior at work through productivity-based pay and incentives.

**Promote safety and health in the work place.** There is the need to advocate and monitor the implementation of sound, gender-responsive occupational safety and health (OSH) practices in the region. Implementation of enhanced workplace

emergency plans and disaster risk reduction programs will also be encouraged. In terms of education, integration of OSH in the secondary and tertiary educational curriculum will be advocated.

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

Provide unemployment protection system and emergency employment.

Better social protection, particularly through income security, will be pursued through the introduction of an unemployment protection system, possibly in the form of unemployment insurance. At the same time, emergency employment programs such as the Community-based Employment Program (CBEP) will be enhanced to provide additional income opportunities for seasonal workers or long-term unemployed during lean or off-season periods.

## Legislative Agenda

*Table 10.10 Legislative Agenda towards Accelerating Human Capital Development*

LEGISLATIVE AGENDA	RATIONALE
Exemption of the CAR from the implementation of Republic Act 7880 or the Roxas Law*	The Roxas Law which aims to end classroom shortage in the country, requires a 45:1 student-classroom ratio for a region to be entitled to a classroom. This cannot be satisfied by CAR given its rugged topography, small population, dispersed settlements and difficult accessibility. There is then the need to push for more appropriate standards in the education sector that takes into consideration the unique characteristics of CAR.
Increasing Taxes on Sugar Sweetened Beverages and Junk Food	This aims to lower consumption of sugar-sweetened beverages and junk food through higher taxes. It will be a cost-effective intervention to the increasing incidence of lifestyle-related non-communicable diseases (NCDs) by addressing risk factors.
Amendment to the Philippine HIV-AIDS Law	This seeks to strengthen the current HIV Law to make it more responsive and relevant to the current epidemic. It will restructure the legal framework to harmonize evidence-informed strategies and approaches on the prevention, treatment, care, and support for HIV and AIDS patients and MARPs with government's response.
Local Population Development Act	This will provide for the establishment and operation of population offices to ensure the effective implementation of population management strategies and measures at the local level.



Prevention of Adolescent Pregnancy Act	This act will facilitate the development of a National Program of Action and Investment Plan for the prevention of teenage pregnancy. The program of action will serve as the national framework for inter-agency and inter-sectoral collaboration at all levels to address the various health, cultural, socio-economic and institutional determinants of teenage pregnancy.
National Mental Health Care Delivery System	The bill aims to establish the legal framework to provide care and services to those with mental illness. It will consolidate mental health provisions in existing laws, namely the Revised Penal Code, the Magna Carta for Disabled Persons, and the Family Code
Amendment of the law on the Barangay Nutrition Scholar (BNS) Program	This is to upgrade incentives and benefits and ensure security of tenure of BNS. This is essential in the provision of continuous frontline nutrition services to the community. This law would ensure that trained and experienced BNS are carried over by succeeding political administrations.
Philippine Qualifications Framework Bill	The bill envisions a quality-assured national system for the development, recognition, and award of qualifications based on the standards of knowledge, skills, and attitude acquired by learners and workers in the country. It aims to institutionalize the PQF to encourage lifelong learning of individuals, provide employers specific training standards and qualifications that are aligned to industry standards, ensure the training and educational institutions adhere to specific standards and are accountable for achieving the same, and provide the government with common taxonomy and typology of qualifications as bases for granting approvals to stakeholders.
Repealing RA 7834 and Establishing the Cordillera State Institute of Technical Education Integrating the Technology Institutions of the TESDA in CAR, Providing for its Powers, Structure and Funds Therefor*	The bill proposes to integrate Technology Institutions into the Cordillera State Institute of Technical Education (CSITE). This reinforces the agency's mandate to strengthen the network of regional and local skills training centers and rationalize their distinctive areas of competence into a more responsive delivery system. The integration is also aligned with the goal of the Technology Institutions to offer higher technology programs for the development of technicians and technologists.
Productivity Incentive Bill	In order to encourage enterprises to adopt productivity improvement and gainsharing schemes, RA 6971 or the Productivity Incentives Act should be amended to liberalize its restrictive provisions. These include the basis for computing baseline productivity data, the manner and frequency of distributing productivity-based bonuses, and the sharing scheme. Workers and enterprises must be allowed to design their own productivity incentive programs depending on the growth requirements of the enterprise.

Note: Adopted from the PDP 2017-2022

\*Specific to CAR



11

Reducing  
Vulnerability of  
Individuals and  
Families



# Reducing Vulnerability of Individuals and Families

Individuals and families face various types of risks associated with global or domestic economic instability, weather disturbances, health-related shocks, political disruptions, or other unexpected events that cause losses in lives, income or assets. These risks may bring temporary setbacks or prolonged crises depending on the victims' vulnerability and coping abilities.

The Cordillera Regional Development Plan (RDP) 2017-2022 aims to enable individuals and families to deal and cope with risks. This chapter discusses strategies to reduce vulnerabilities by decreasing people's exposure to risk and increasing their adaptive capacities. It describes a universal and transformative social protection program for all Filipinos that will build up socioeconomic resilience.

## Assessment and Challenges

### Individual Risks

Vulnerability has always been associated with poverty. The poor are more vulnerable than any other group to health hazards, economic down-turns, natural and man-made disasters. On the other hand, shocks such as illness, injury, and loss of livelihood are significant causes of poverty.

Poverty incidence among families in the region was at 14.9 percent or a total of 59,759 thousand families in 2015 (Table 11.1). This shows a decrease in the number of poor families from the 17.5 percent in 2012. Among the provinces, Apayao had the highest poverty incidence among families from 2006 to 2015 with 30.9 percent in 2015 while only 2.5 percent of families in Benguet were poor in the same year.

In terms of magnitude of poor families, Abra had the most number of poor families in 2006 and 2009 but significantly decreased in 2015. Kalinga had the most number of poor families in 2015 while Benguet's number of poor families further decreased.

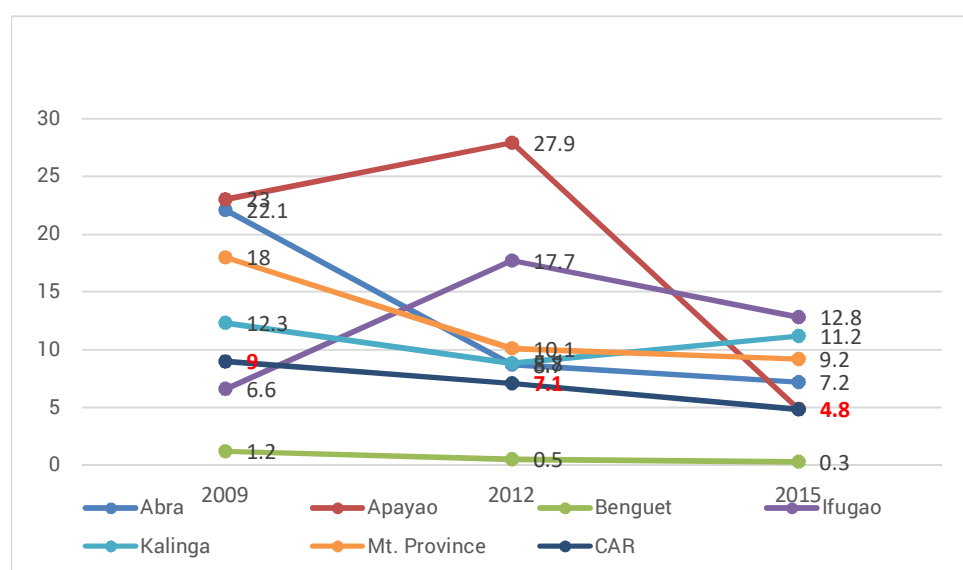
Among the poor families in the region, 4.8 percent are subsistence poor or food poor in 2015 compared to the 7.1 percent in 2012 (Figure 11.1). Ifugao had the highest subsistence poverty in 2015 with 12.8 percent while Benguet had the least at only 0.3 percent.

**Table 11.1 Poverty Incidence Among Families and Magnitude of Poor Families: CAR: 2009, 2012 and 2015**

Province	Poverty Incidence Among Families			Magnitude of Poor Families		
	2009	2012	2015	2009	2012	2015
Philippines	29.7	21.0	16.5	4,036,915	4,214,921	3,746,513
CAR	36.7	17.5	14.9	66,111	65,516	59,759
Abra	38.9	27.2	19.9	18,852	13,914	12,400
Apayao	39.9	54.7	30.9	9,132	13,462	6,945
Benguet	4.2	2.8	2.5	6,937	5,121	4,783
Ifugao	23.9	36.0	26.1	9,263	14,950	11,133
Kalinga	24.1	20.9	30.0	9,124	8,482	12,884
Mountain Province	39.3	27.9	29.5	12,803	9,586	11,615

Source: PSA

**Figure 11.1 Subsistence Incidence Among Families, CAR: 2009, 2012, 2015**



As the major anti-poverty program of the government, the Pantawid Pamilyang Pilipino Program (4Ps) aims to break inter-generational poverty among the Filipinos. In CAR, the coverage of the 4Ps

was expanded to all (100 percent) municipalities and cities in the region in 2015 as compared to only 38.9 percent in 2010.

**Table 11.2 4Ps Household Coverage, CAR: As of October 2016**

REGION/PROVINCE/HUC	TARGET	ACTUAL	%
<b>Regular CCT</b>			
<b>CAR Sub-Total</b>	<b>63,755</b>	<b>61,197</b>	<b>95.99</b>
Abra	13,670	12,578	92.01
Apayao	8,108	7,788	96.05
Baguio City	3,148	3,187	101.24
Benguet	11,286	10,908	96.65
Ifugao	9,898	9,521	96.19
Kalinga	11,333	11,131	98.22
Mountain Province	6,312	6,084	96.39
<b>MCCT-IP in GIDA</b>			
<b>CAR Sub-Total</b>	<b>2,091</b>	<b>2,233</b>	<b>106.79</b>
<b>TOTAL CAR</b>	<b>65,846</b>	<b>63,430</b>	<b>96.33</b>

Source: DSWD-CAR

As of October 2016, a total of 61,197 households had already been served by the Regular Conditional Cash Transfer (CCT), while 2,233 households were included under the Modified CCT (MCCT) for Indigenous People in Geographically Isolated and Disadvantaged Areas (GIDA) (Table 11.2). This forms 96.33 percent of the total target of 65,846 household beneficiaries in the region.

Verification on compliance of 4Ps beneficiaries to the conditions of the program shows that the region was unable to meet but does not lag behind the 98 percent compliance rate target (Table 11.3). This implies that household beneficiaries in the region are actively participating in the program. Compliance on education of children aged 15-18 years old was lowest among the program conditions as of July 2016.

**Table 11.3 Compliance Rates per Program Condition, CAR: As of July 2016**

PROGRAM CONDITIONS	JULY 2016
Education- children 3-5 yrs. Old	87.89%
Education- children 6-14 yrs. Old	93.88%
Education- children 15-18 yrs. Old	83.44%
Health Center visits 0-5 yrs. Old	91.95%
Health Center visits- Pregnant Women	94.44%
Deworming	99.75%
Family Development Sessions	91.95%

Source: DSWD

However, the amount of cash grants provided to beneficiaries was not yet adjusted since its pilot implementation in 2008. Considering economic changes (e.g. inflation), the real value of cash grants has

been depleted over the years. Such needs to be reviewed and adjusted enough to increase resiliency of poor families against all forms of risks.

To ensure well-targeted Social Welfare and Development (SWD) programs as well as increase their impact, the DSWD targeted 85 percent of the NHTS PR-identified poor families to be covered by at least two SWD Programs by end of 2015. Actual accomplishment was at 88.4 percent or 68,711 of the 77,811 NHTS-PR identified poor families provided with SWD services.

For vulnerable sectors including women, children, youth, senior citizens, and persons with disability (PWDs), the DSWD provides Assistance to Individuals in Crisis Situation (AICS) under the Crisis Intervention Program. Under the said program, a total of 15, 778 individuals were assisted (Table 11.4).

The Family Head and Other Needy Adults (FHONA) ranked first in the clientele category served with 11,438. These are 2,373 males and 9,065 female headed families and adults who are in crisis due to medical problems either themselves or members of the family, and family members/relatives referring custody problems who are advised and referred to their respective LGUs. For Persons with Disability (PWDs), a total of 25 individuals were assisted. According to DSWD-CAR, educational and health financial assistance are the highest sought assistance.

**Table 11.4 Crisis Intervention Program Beneficiaries, CAR: 2015**

<b>Client Category</b>	<b>MALE</b>	<b>FEMALE</b>	<b>TOTAL</b>
Family Head and Other Needy Adult (FHONA)	2,373	9,065	11,438
Women in Especially Difficult Circumstances (WEDC)	-	66	66
Children in Need of Special Protection (CNSP)	267	503	770
Youth	787	1,288	2,075
Senior Citizen	330	1,069	1,399
Persons with Disability (PWD)	13	12	25
Persons Living with HIV-AIDS (PLHIV)	2	3	5
<b>GRAND TOTAL</b>	<b>3,772</b>	<b>12,006</b>	<b>15,778</b>

Source: DSWD-CAR

On child labor, results of the 2011 Survey on Children conducted by the Philippine Statistics Authority (PSA) showed that there were 3.312 million working children 5-7 years of age nationwide. Among these, 1.8 percent or 59,616 were from the CAR. Of the working children in the region, 72.2 percent or 41,940 were engaged in child labor, 26,114 of whom were working in hazardous environment. Also according to the survey, there were more boys compared to girls engaged in child labor

and those working in hazardous environment nationally and in the region.

To prevent and eliminate child labor, the Department of Labor and Employment (DOLE) have several programs including the *Sagip Batang Mangagawa*, through the provision of livelihood to their families or parents, through educational assistance, and through issuance of working child permit.

The *Sagip Batang Mangagawa* is an inter-agency quick action mechanism for the detection, monitoring and rescue of child laborers in hazardous and exploitative working conditions. Under the program, a total of 21 children were prevented/removed from child labor in the region from 2011 to 2016. Within the same period, a total of 362 children were prevented from engaging in child labor through the provision of livelihood assistance to enable their parents and families to provide for them. A total of 1,266 children were also provided with educational assistance under the Project Angel Tree. There were also a total of 15 children from the region issued with working child permit from 2011 to 2016.

## Health Risks

To further protect the poor from health risks, the PhilHealth expanded its coverage to all (100%) families identified as poor under the National Household Targeting System- Poverty Reduction from 2010 to 2015 with a total of 229, 490 families covered in 2015.

For senior citizens, the Expanded Senior Citizens Act (RA 10645), amending the Expanded Senior Citizens Act of 2010, was passed in 2014 to provide mandatory PhilHealth coverage for all senior citizens and monthly stipend of 500 pesos to indigent senior citizens. This is intended to be used for food and medicines of the elderly. As of 2015, a total of 35,409 (99 percent) of the 35,059 target poor/indigent senior citizens were provided monthly cash grant of Php500 all over the region.

Poor communication system in far flung areas and nonappearance of social pensioners during pay-out due to out of town trips to seek for medication are primary causes of not meeting 100 percent disbursement of social pension to beneficiaries. Also, the pension amount did not adjust with inflation due to budget constraints.

However, the replication of the Social Pension for Indigent Senior Citizens in three municipalities in the region is a step towards successful implementation of the program. The municipalities of Tinglayan and Tabuk in Kalinga and Hungduan in Ifugao allotted funds for indigent senior citizens in 2015.

On financial risk protection as measured by the National Health Insurance Program (NHIP) of the Philippine Health Insurance Corporation, the coverage rate was at 99 percent (1.7 million members and dependents) in 2015. This data is higher by 7 percent than the 92 percent national rate. Over the years starting 2012, the regional coverage rate has consistently increased.

Accessibility of PhilHealth members and their dependents to health care institutions was high since all of the 57 DOH licensed hospitals were PhilHealth accredited and 74 of the 80 main health centers were accredited as Primary Care Benefit Providers. Computing the peso equivalent of health benefits paid to members and their dependents gives a total amount of Php1,891,619,423.46 which is 20 percent higher than 2014 (Php1,567,662,253.56).

**Table 11.5 Philhealth Coverage Rate, CAR: 2012-2015**

Year	Coverage Rate
2012	70%
2013	84%
2014	89%
2015	99%

Source: PHILHEALTH-CAR

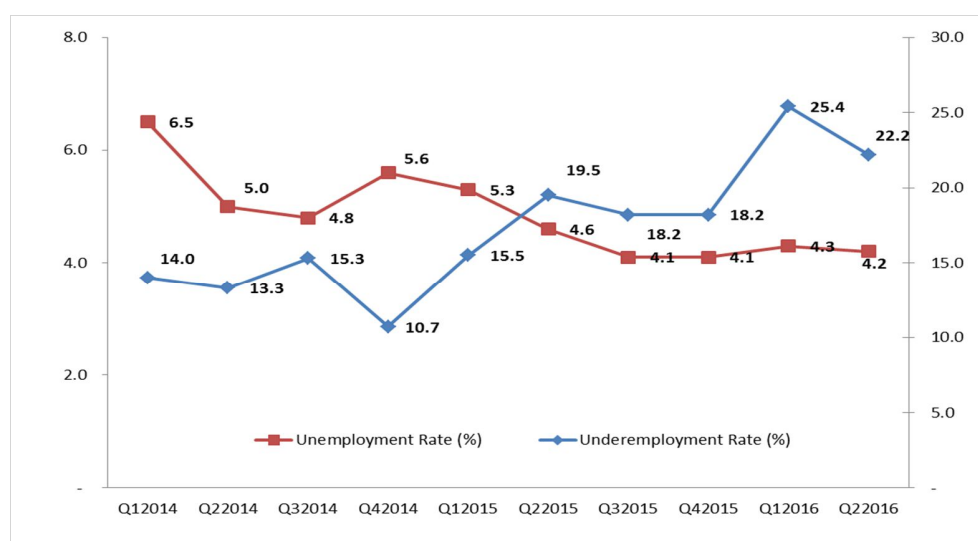
## Economic Risks

Economic risks usually faced by working age population include unemployment, underemployment, lack of job security, low and irregular income, price instability of basic commodities and economic crisis.

In the region, unemployment rate was reduced from 6.5 to 4.2 percent. However, underemployment rate showed a 58 percent increase during the same period from 14 percent to 22.2 percent.

The regional unemployment rate improved to 4.2 percent in the second quarter of 2016 from 6.5 percent during the first quarter of 2014. The quality of jobs remains in doubt as the underemployment rate was at a high 22.2 percent from 14 percent the first quarter of 2014. Underemployed persons include all employed persons who express the desire to have additional hours of work in their present job or an additional job, or to have a new job with longer working hours.

**Figure 11.2 Unemployment and Underemployment Rates by Quarter (In percent), CAR: Quarter 1 2014 – Quarter 2 2016**



Source: PSA-CAR



To enable unemployed and underemployed persons to be productive specially among the poor, Pantawid beneficiaries are given access to livelihood and employment thru the DSWD's Sustainable Livelihood Program (SLP) and the KALAHICIDSS-NCDDP which stands for "Kapit-bisig Laban sa Kahirapan Comprehensive and Integrated Delivery of Social Services - National Community-Driven Development Program."

The SLP aims to improve the socio-economic status of poor families by creating more employment (Employment Facilitation Track) and entrepreneurial opportunities (Micro-Enterprise Development Track). It is a community-based capacity building program which increases the economic opportunities of the families through the different modalities that it offers such as skills training, seed capital fund, pre-employment assistance fund, and the cash for building livelihood assets.

For the microenterprise track, a total of 5,424 or 79 percent of the 6,860 target individual micro-enterprises had been established or supported in 2015. Compared to 2011, there is 126 percent increase in the number of micro-enterprises established.

Contributory to the accomplishment are the intensive advocacies done to increase commitments from program participants. Orientations/reorientations and partnership initiatives both to local

partners and program participants were also done to address the low compliance rate on Pantawid Pamilya Conditionalities which directly affects livelihood implementation.

For the employment facilitation track, a total of 1,372 individuals were accessed to employment opportunities in 2015. This means a 350 percent accomplishment of the targeted 391 beneficiaries and a 150 percent increase from 2011. Most were employed in the *Trabahong Lansangan* in partnership with DPWH and in various private sectors both local and abroad.

Another major program of the DSWD towards increasing and promoting sustainable economic opportunities for the poor is the KALAHICIDSS-NCDDP. It is the largest community-driven development (CDD) project in the country that gives communities control over decisions and control over resources. The KALAHICIDSS implementation in CAR is being funded by the United States Government through the Millennium Challenge Corporation (MCC) and by World Bank (WB). The MCC-funded programs are being implemented in 16 municipalities while the WB-funded programs are in 25 municipalities. As of November 2015, 50 percent or 108 of the 214 sub-projects were completed and 106 are for completion. A total of 42,120 households are being served by the 270 sub-projects completed since 2011.

## Governance and Political Risks

Crime and domestic violence, armed conflict and political instability impose great risks to lives and communities. To enhance socio-economic conditions, improve governance, and empower communities through strengthening their capacity to address issues of conflict and peace, the government is implementing the PAYapa at MASaganang PamayaNan (PAMANA) which is its national convergence program for peace and development in conflict-affected and conflict-vulnerable areas.

The PAMANA complements the government's aim to achieve the completion of the signed Memorandum of Agreement between the Government of the Philippines (GPH) and the Cordillera Bodong Administration-Cordillera People's Liberation Army (CBA-CPLA) Towards the Final Disposition of Arms and Forces and CBA-CPLA's Transformation into a Potent Socioeconomic Unarmed Force in 2011.

The PAMANA has contributed to the CPLA's economic development through livelihood projects, integration of their next of kin into the Armed Forces of the Philippines (AFP), and employment with the DENR as forest guards. Also, they were enrolled into PhilHealth insurance and college scholarships for their children or next of kin. The implementation of the livelihood projects for the CPLA members is targeted to be completed in 2017.

The program covers 57 barangays in 23 municipalities in the six provinces that were identified in the Closure Agreement. Since the signing of the Closure Agreement in 2011 to 2015, 50 PAMANA projects have been fully completed in the provinces of Abra, Apayao, Benguet, and Kalinga while 31 more PAMANA projects under the 2011 MOA are on its way to completion in the provinces of Ifugao and Mountain Province. Beneficiaries include 885 individuals under the health insurance program for PAMANA beneficiaries; 745 families identified under the NHTS were given shelters; 187 students enjoyed study grants, while 40 individuals are endorsed for the program; and several infrastructure projects had been implemented to improve the socio-economic state of the region.

Still, the implementation of the PAMANA needs to be enhanced and strengthened specially in terms of the implementation of livelihood projects and the establishment of sustainability mechanisms.

For victims of human trafficking, the Recovery and Reintegration Program for Trafficked Persons (RRPTP) of the DSWD received 29 reports on Human Trafficking whose victims are from the region and some incidents occurred in the Cordillera. The RRPTP extended livelihood assistance to 18 cases, transportation assistance to 14 cases, assistance for local employment to nine cases and medical assistance to five cases.

## Environmental and Natural Risks

The region is frequented by natural hazards such as flooding, landslides and ground shaking. These were either triggered by typhoons or earthquakes. Owing to its topographic characteristics such as mountainous terrain and steep slopes, the region is prone to rain-induced landslides associated with typhoons and monsoon rains. Parts of the region are also prone to hazards brought about by climatic conditions such as frost, La Nina and El Nino.

In 2016, CAR is one of the regions severely hit by Super Typhoon (STY) Lawin which affected 19,134 families or 526,759 persons and recorded 16 fatalities. For the social

sector (housing, health and education), Lawin recorded damages amounting to Php477,791,740.60 and losses amounting to Php26,258,058.02.

Severe typhoons such as STY Lawin exposed the inadequate disaster risk prevention and coping mechanism of the LGUs. The use of schools as evacuation centers is being discouraged because these are not typhoon-proof. Schools are not built for human habitation for long periods of time, and lacks proper sanitation facilities for such applications. Using schools as evacuation centers also prolongs the disruption of school activities.

## Strategic Framework

Under the pillar *Pagbabago* or reducing inequality, the Cordillera RDP 2017-2022 aims to build the socioeconomic resilience of individuals and families by reducing

their vulnerability to various risks and disasters. In particular, the government will aim for universal and transformative social protection for all Filipinos.

## Targets

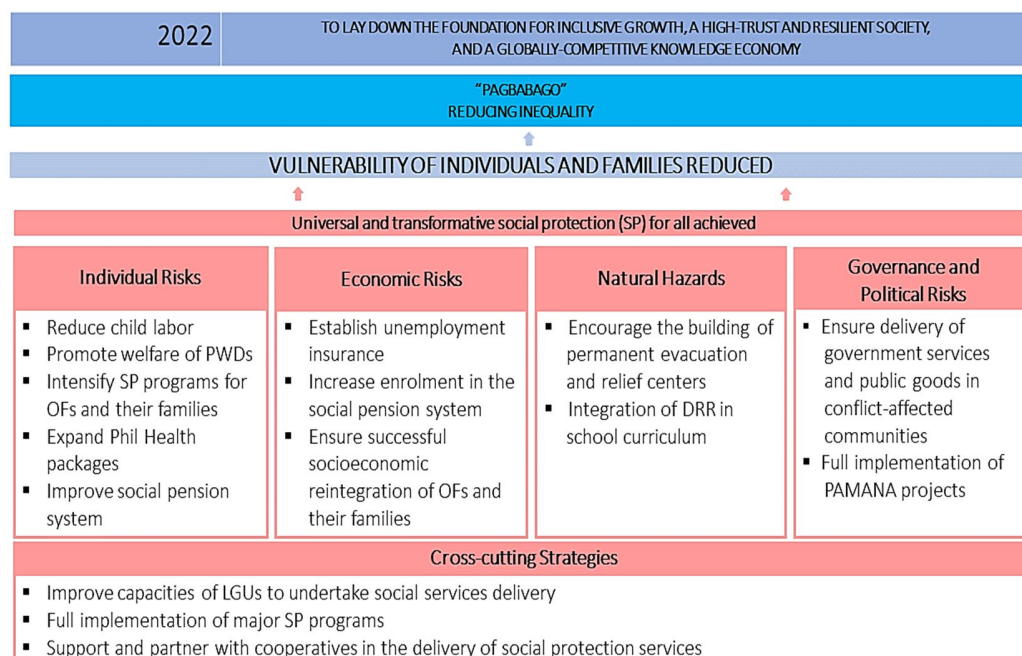
**Table 11.6 Plan Targets to Reduce Vulnerability of Individuals and Families, 2017-2022**

INDICATOR	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	
Individual Risk			
Percentage of NHTS-PR identified poor families covered by PhilHealth	2015	100	100
Number of poor/indigent senior citizens (identified by NHTS-PR or the LGUs, 70 years old and above) covered by social pension	2015	35,409	122,863
Economic Risks			
No. of children aged 5-17 years engaged in child labor	2011	41,940	Decrease
No. of children aged 5-17 years engaged in child labor and working in hazardous environment	2011	26,114	decrease

Percentage of SSS regular members over the total number of workers employed by private sector			100
Percentage of employed in the government covered by GSIS			100
Percentage of OFW membership to OWWA over total documented OFWs increased			100
<b>Environmental and Natural Hazards</b>			
Proportion of families affected by natural and human-induced calamities provided with relief assistance			100
Emergency shelter assistance provided			100
<b>Governance and Political Risks</b>			
No. of former CPLA members gainfully employed as forest guards under DENR	2016	540	Sustainability of forest guard employment
No. of former CPLA People's Organizations capacitated with Program on Enhanced Enterprises	2016	10	Sustainability of livelihood projects

## Strategies

**Figure 11.3 Strategic Framework to Reduce Vulnerability of Individuals and Families, 2017-2022**



The following strategies will be pursued in order to reduce the vulnerability of individuals and families to various types of risks:

### Subsector Outcome 1: To mitigate risks faced by vulnerable groups

**Reduce cases of child labor.** The region will intensify mechanisms to reduce cases of child labor most specially children working in hazardous environment. There is also the need to monitor implementation of relevant policies.

**Enhance the conditional cash transfer program.** The conditional cash transfer approach of the government will be continued to ensure that the rights of poor children are upheld. Moreover, it will be enhanced specifically to help child beneficiaries and their families become self-sufficient and self-reliant.

**Promotion of the welfare of Persons with Disabilities (PWDs).** Stricter implementation of disability-related policies and programs shall be ensured. There is also the need to strengthen employment facilitation programs for PWDs through expanding employment opportunities and enhancing the quality of employment among PWDs.

**Intensify social protection programs for OFs and their families.** To maximize benefits of migration, Overseas Filipinos (OFs) shall also have social protection. Social security benefits shall be included in the standard employment contract for all types of OFs. Additionally, to address the vulnerabilities caused by global developments, social safety nets will be

extended alongside the conduct of reintegration programs, skills upgrading, and skills matching with domestic opportunities.

**Organize and support OFW family circles (OFCs).** OFW Family circles provide the link between OFs and their community. At the same time, the OFs are assured of a support system for the family left behind. Such circles also help OFWs navigate through the different phases of their overseas employment, including their reintegration when they come home for good.

**Expand PhilHealth packages through the different health financial programs of the government.** All health financial programs of the government agencies will intersect to support a universal health insurance. The target is to increase benefit utilization and adjust case rates to ensure full coverage of cost of care. Benefit packages will continue to expand and cover outpatient diagnostics, medicines, blood, and blood products. NHIP will guarantee full support value for the poor and those admitted in basic accommodation.

### Subsector Outcome 2: To manage economic risks

**Establish unemployment insurance (UI).** This program will address income insecurity by (a) facilitating re-employment for involuntarily-unemployed individuals; (b) re-tooling as required in job transitions or entrepreneurial endeavors; and (c) cushioning individuals and their families from the impact of involuntary work dismissal.

**Enhance social protection for the informal sector.** Benefits and SP services will expand to safeguard workers in the informal economy. The government shall also ensure full remittance of employers of deducted premiums so to lessen and even illuminate inability of workers to obtain benefits when needed.

**Ensure successful socioeconomic reintegration of Overseas Filipinos and their families.** The government will continue its initiatives towards the successful reintegration of OFs through the Assist WELL Program.

### Subsector Outcome 3: To deal with natural hazards

**Encourage the building of permanent evacuation and relief centers** to avoid the use of schools as evacuation centers. However, where it will be difficult to construct new evacuation centers, school structures should be compliant to building codes, have disaster risk reduction integrated in their development plans, and have permanent facilities such as comfort rooms and kitchen for evacuees in the school premises.

**Roll out climate vulnerability assessment and climate/disaster risk assessment.** Assistance to local communities in conducting vulnerability and risk assessment shall be provided with the goal of crafting strategies and measures to reduce vulnerabilities. Integration of DRR in school curriculum and institutionalization of emergency drills must also be strengthened to ensure DRR-preparedness.

### Subsector Outcome 4: To reduce governance and political risk

**Ensure delivery of government services and public goods in conflict-affected communities.** Convergence among different government agencies to ensure the delivery of government services and public goods in conflict areas shall be intensified. The needs of vulnerable sectors such as children, elderly and women shall be a special concern.

**Full implementation of PAMANA projects.** Government interventions and implementation of PAMANA projects in conflict-affected communities shall be strengthened to promote development and peace in these areas.

The government hopes to complete the commitments stated in the MOA with the CBA-CPLA. By the end of 2022, the peace process aims to facilitate the return of the former CBA-CPLA members, their families and communities to productive and normal lives. The strategy for the conclusion of the peace process with the CBA-CPLA will be three-pronged: (a) completion of implementation of the 2011 Closure Agreement; (b) continuing peace and development interventions; and (c) provision of support to regional initiatives on Regional Autonomy towards Federalism.

## Cross-cutting Strategies: To achieve universal social protection

**Improve capacities of LGUs to undertake social services delivery.** Given the decentralization of services, LGUs are seen as key stakeholders in the implementation of social protection programs. However, many LGUs still lack capacities to implement such initiatives which lead to limited and unresponsive SP interventions. With this, vulnerable sectors such as PWDs, Women in difficult situations and IPs often fail to manage shocks which come their way.

The development management capacities of LGUs to undertake social services delivery can be strengthened. The number of fully functional local (provincial, city, municipal) social welfare and development offices shall be increased. There is also the need to strengthen the monitoring and evaluation of social protection programs specifically those devolved to LGUs.

**Full implementation of major SP programs.** Major social protection

programs shall be fully implemented to maximize results. This can be done through complementation of SP programs and increase in the number of NHTS PR-identified poor households served with at least two social welfare and development programs.

**Support and partner with cooperatives in the delivery of social protection services.** Many cooperatives in the region are already implementing self-help mechanisms that simultaneously create economic opportunities, extend protection and facilitate empowerment. They enhance resilience through (micro)-insurance coverage based on the principles of mutuality, solidarity and reciprocity rather than seeking to maximize profits which makes their requirements and procedures less stringent and more accessible to the informal sector and in rural areas.



## Legislative Agenda

*Table 11.7 Legislative Agenda for Reducing Vulnerability of Individuals and Families*

LEGISLATIVE AGENDA	RATIONALE
Philippine Adoption Act for Abandoned and Neglected Children and for Children with Special Needs	Improve the quality of foster care for abandoned and neglected children, particularly those with special needs.
Anti-Senior Citizen Abuse Act	Protect senior citizens from all forms of abuse
An Act Establishing a Disability Support Trust Fund	Support PWDs in terms of rehabilitation services, appropriate assistive devices, technology, education, employment, and other disability support services. It will also involve capacity-building of LGUs in provision of services for PWDs and build their own trust fund.
Social security initiatives	Review the SSS Charter to ensure its long-term viability
Unemployment insurance or involuntary separation benefit system	Provide meaningful jobs, guarantee income security during sudden unemployment, and provide financial assistance linked to active labor market programs
Subsidy on social insurance for the informal sector	Provide social insurance for the informal sector workers to safeguard and incentivize them by registering in government programs.
Evacuation Center Act	Establish permanent and typhoon-resilient evacuation centers with the necessary facilities to avoid the practice of using classrooms as evacuation centers during calamities. Centers should also have PWD-friendly and elderly-friendly spaces. The NDRRMC will be in charge of identifying which municipalities and cities will be given priority.

*Note: Adopted from the Philippine Development Plan 2017-2022*



# 12 Building Safe and Secure Communities



## Chapter 12

# Building Safe and Secure Communities

Most Filipinos aspire for a *“matatag, maginhawa at panatag na buhay”* or a strongly rooted, comfortable and secure life as shown by the results of the national survey for *AmBisyon Natin 2040*. This can only be enjoyed by Filipinos and Cordillerans if they have access to safe and secure shelter in well-planned communities.

The government recognizes the importance of quality housing especially in urban areas where settlements have become concentrated due to the concentration of economic opportunities. The Cordillera Regional Development Plan (RDP) 2017-2022 thus aims to support communities, marginalized sectors, local governments and the private sector in building safe and secure communities.

## Assessment and Challenges

**Several achievements improved housing and shelter in the region.** Achievements towards improving housing and shelter conditions in the region include the provision of resettlement and housing assistance to 1,685 households from 2011 to 2016. In addition, 400 families from Benguet who were affected by Typhoon Lando in 2015 were benefitted with the Housing Materials Assistance (HOMA) Program of the National Housing Authority (NHA-CAR/I). About two million pesos was released through the Provincial Government of Benguet with Php5,000 worth of housing materials given per family.

Also, one Presidential Proclamation for socialized housing was issued in Bucay, Abra. The proclamation covers about ten hectares generating more or less 280 lots

and benefitting 300 families who were affected by Typhoon Ondoy.

A total of 89 Home Owners Associations (HOAs) were assisted in 2016 as partners in the successful implementation of government housing projects. From 2011 to 2016, a total of 38 housing projects were issued license to sell producing 3,222 saleable lots/units. A total of 1,646 accounts provided housing loan by the Home Development Mutual Fund (HDMF)-Baguio Branch amounting to about Php1.9 billion from 2011-2016.

The DSWD-CAR was able to consistently meet housing targets of the Core Shelter Assistance Program (CSAP) and serve a total of 2,475 households from 2010 to 2015.

**Demand for housing in all provinces in CAR is increasing.** The Housing and Urban Development Coordinating Council (HUDCC) estimates a total of 57,937 housing backlog for the region as of December 2016 (Table 12.1). Although there are no homeless Cordillerans, the housing backlog includes 15,331 doubled-up and 42,606 displaced households.

Considering population growth, the region is projected to need an estimate of 137,961

housing by 2025 requiring around 1,011 hectares. Among the provinces, Benguet is projected to have the most housing need (39,698) while Apayao has the least projected housing need (9,901) by 2025.

Some LGUs pre-identified potential lands for housing but these are subject to validation for their suitability for housing. Also, most of these lands lack title registered in the name of LGUs and are classified as forest reserves.

**Table 12.1 Current and Future Housing Need, Land Requirement and Identified Potential Land by Province, CAR: 2016**

PROVINCE	HOUSING BACKLOG			FUTURE NEED	TOTAL NEED	Land Requirement	Identified Potential Land
	Doubled-up Household	Displaced HHs	Home-less	(Due to population growth)	2017 – 2025	(In hectares)	(In hectares)
Abra	1,674	6,081	0	7,447	15,202	109.32	236.534
Apayao	394	5,146	0	4,361	9,901	133.691	386.598
Kalinga	1,137	5,431	0	14,477	21,045	336.941	322.401
Ifugao	3,718	7,719	0	8,530	19,967	121	4,016.10
Mountain Province	831	6,828	0	5,123	12,782	144.304	294.390
Benguet	6,084	5,976	0	27,638	39,698	119.689	2,988.912
Baguio City	1,493	5,425	0	12,448	19,366	45.73	1.8
<b>RUNNING TOTAL FOR CAR</b>	<b>15,331</b>	<b>42,606</b>	<b>0</b>	<b>80,015</b>	<b>137,961</b>	<b>1,010.675</b>	<b>8,246.74</b>

Source: HUDCC

**There is the lack of titled lands for government housing programs in the region.** Only 15 percent of the region's total land area is classified as alienable and disposable (A&D) while 85 percent is forest land. This leads to the proliferation of informal settlers in forest lands who do not adhere to environmental and safety regulations thereby posing higher risks.

The Cordillera Regional Delineation Assessment Committee proposed the reclassification of 119,000 hectares from forest land to A&D. However, majority of these identified areas are covered by Proclamations (i.e., Chico River Forest Reserve Proc. No. 573, Ambuklao-Binga Watershed Reservation Proc. No. 548, etc.). Also, given the topography of the

region, some areas have slopes of 18 percent and above thereby subject to restrictions under Presidential Decree 705 (Forestry Reform Code of the Philippines). There are also areas which are prone to landslides, floods and other geo-hazards thereby making them inappropriate for housing.

Seven sites were identified for socialized housing during the previous Plan period. However, most proposed sites for issuance of Presidential Proclamation for housing are denied because they are either within forest or within watershed reservations.

**Human, technical and financial resources of LGUs in implementing housing programs are limited.** Only a number of LGUs have established local housing offices and/or local housing boards to address the unmet housing need for their poor and underprivileged constituents.

Comprehensive Land Use Plans (CLUPs) of LGUs are prepared in order to ensure that the needs of the communities are met in an environmentally sound manner to ensure sustainability of human settlements. This is why Key Shelter Agencies specifically the Housing and Land Use Regulation Board (HLURB) assist LGUs in CLUP/Zoning Ordinance formulation, review and updating. From 2010 to 2016, the HLURB-Northern Luzon was able to assist 143 LGUs.

Local Shelter Plans (LSP) is the LGU's road map to address the housing needs of their constituents both the formal and informal sector groups. From 2011 to 2016, the HUDCC reports a total of 74 LGUs assisted in local shelter plan formulation.

However, such technical assistance provided by Key Shelter Agencies do not ensure the completion of CLUPs and Local Shelter Plans. This is because many LGUs assisted were still unable to finalize their CLUPs and their LSPs. This may be due to the limited human, technical and financial resources of LGUs forcing the LGUs to prioritize other concerns over housing.

**Achievements in terms of building shelters were dampened by destruction caused by weather-related disasters.** In October 2016, Super Typhoon Lawin severely hit the region causing death and damages to properties specially to housing. STY Lawin destroyed a total of 36,842 houses (2,720 totally damaged and 34,122 partially damaged) rendering affected families homeless and displaced. Lawin's damage to housing greatly surpassed the collective damages to housing of all the 35 typhoons that hit the region from 2011 to 2015 which totally damaged 793 houses and partially damaged 11,279 houses (Table 12.2). Across provinces, STY Lawin made the most partial and total damage to houses in Abra and Kalinga.

**Table 12.2 Number of Monitored Tropical Cyclones and their Damages to Housing, CAR: 2011-2015**

Year	No. of Monitored Tropical Cyclones	Damaged Houses	
		Totally	Partially
2011	6	219	3,868
2012	10	21	156
2013	6	322	3,681
2014	6	84	2,191
2015	7	147	1,383
<b>Total</b>	<b>35</b>	<b>793</b>	<b>11,279</b>

Source: DSWD-CAR

## Strategic Framework

Under the pillar “*Pagbabago*” or reducing inequality, the Cordillera RDP 2017-2022 aims to build up socioeconomic resilience by building safe and secure communities.

This chapter focuses on expanding access to affordable, adequate, safe, and secure shelter in well-planned communities.

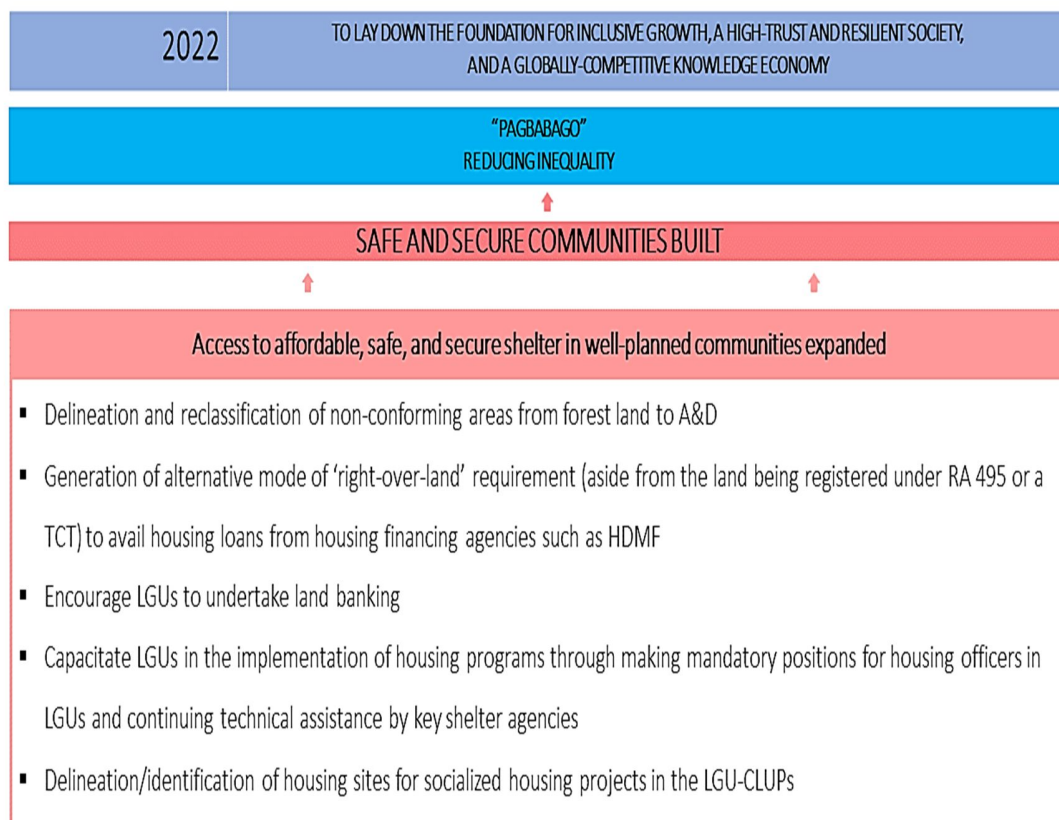
## Targets

**Table 12.3 Plan Targets to Build Safe and Secure Communities, 2017-2022**

INDICATOR	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	
Number of Presidential Proclamation issued for socialized housing sites	2014	1	Increase
Number of sites identified for socialized housing	2016	3	increase
Emergency Shelter Assistance Program (ESAP)	2016	17,270	All households with totally and partially damaged houses
Percentage of housing target met (Core Shelter Assistance Program)	2015	100	100
No. of LGUs assisted in Local Shelter Plans (LSP) Write shop/Updating	2016	74 (cumulative 2011-2016)	Increased

## Strategies

**Figure 12.1 Strategic Framework to Build Safe and Secure Communities, 2017-2022**



The following strategies will be adopted to build safe and secure communities in the region:

**Delineation and reclassification of non-conforming areas from forest land to A&D.** The Cordillera Regional Delineation Assessment Committee (CRDAC) will continue to pursue the delineation and reclassification of non-conforming areas from forest land to alienable and disposable. This is to facilitate the titling of areas suitable for settlements specially for socialized housing projects. This will also help in the identification and protection of

forest lands and critical areas for preservation.

**Strict enforcement of no-build zones per identified risk areas** based on the studies conducted by DENR-MGB. Prioritize relocation of families identified by the DENR-MGB that are located in the danger zones or high-risk areas, families living in landslide prone areas in steep slopes or along rivers. Most of the housing damages by STY Lawin are those situated in identified areas prone to rain-induced slides.

**Generation of alternative mode of ‘right-over-land’ requirement** (aside from the land being registered under RA 495 or a Transfer Certificate Title (TCT) to avail of housing loans from housing financing agencies such as the HDMF. This is especially true for the region with the complexity and lengthy process of land titling due to issues regarding forest lands and ancestral domains.

**Conduct of inventory and assessment of suitable resettlement sites and encourage the practice of land banking among**

**LGUs.** Inventory of lands and cadastral surveys will be fast-tracked to hasten the process of identifying land for housing projects. With the lack of titled lands in the name of the LGU as one of the major impediments in the implementation of housing projects in the region, the practice of land banking shall be encouraged among LGUs.

**Capacitate LGUs in the implementation of housing programs** through making mandatory positions for housing officers in LGUs and continuing technical assistance by key shelter agencies.

## Legislative Agenda

To complement the strategies identified, legislative action will be sought in support

of the goal of building safe and secure shelter in well-planned communities.

*Table 12.4 Legislative Agenda to Build Safe and Secure Communities*

LEGISLATIVE AGENDA	RATIONALE
Exemption of the region from PD 705 (Forestry Code)	The law prohibits development in lands with 18 percent in slope leaving only 15 percent of A&D lands for the region given its mountainous topography.
Creation of the Department of Housing and Urban Development (DHUD)	Creation of the Department of Housing and Urban Development (DHUD)
Creation of Local Housing Boards (LHBs) in every city/municipality	Strengthen the roles of the LGUs in the provision of shelter to households through the mandatory establishment of local housing boards in every city and municipality.



PART IV

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





# 13

Reaching for the  
Demographic  
Dividend



# Reaching for the Demographic Dividend

The country is said to be in the so-called demographic transition phase where the country is transitioning from high fertility and high mortality to lower fertility and lower mortality due to factors related to modernization that may be economic, social or cultural in nature. As fertility declines, the demographic dividend occurs as falling birth rates change the age distribution of the population making for a smaller population at young, dependent ages and an increase in the adult age groups who comprise the productive labor force. This change in the age distribution of the population is seen as providing opportunities for faster economic growth.

## Reaping the Demographic Dividend

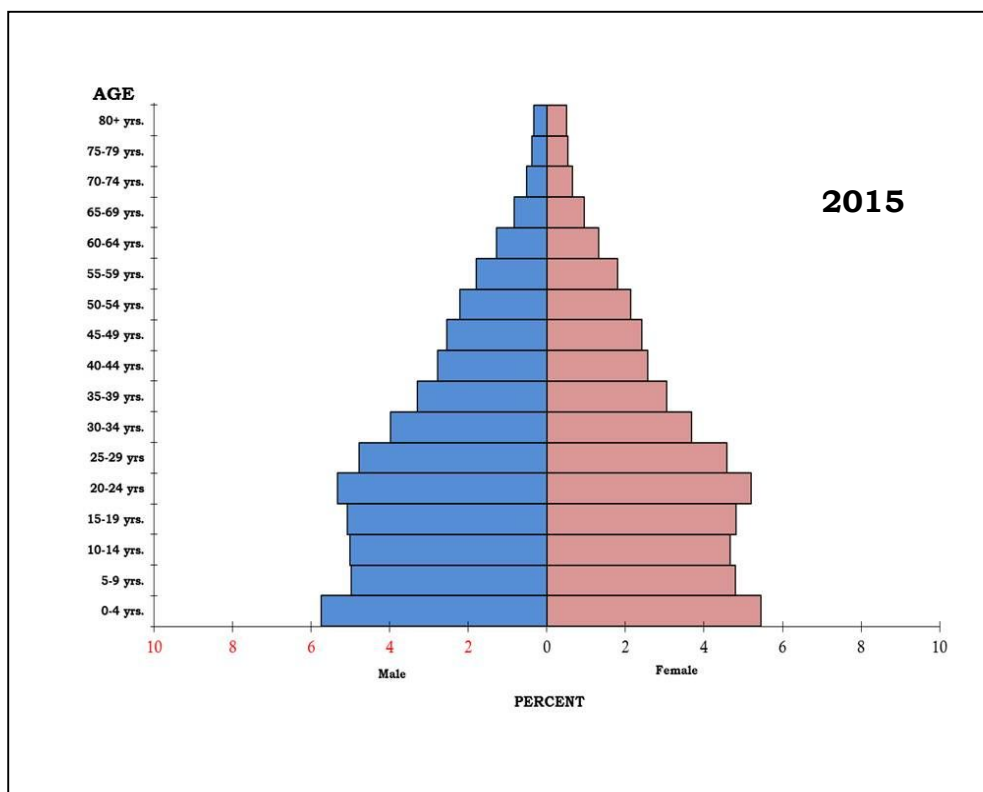
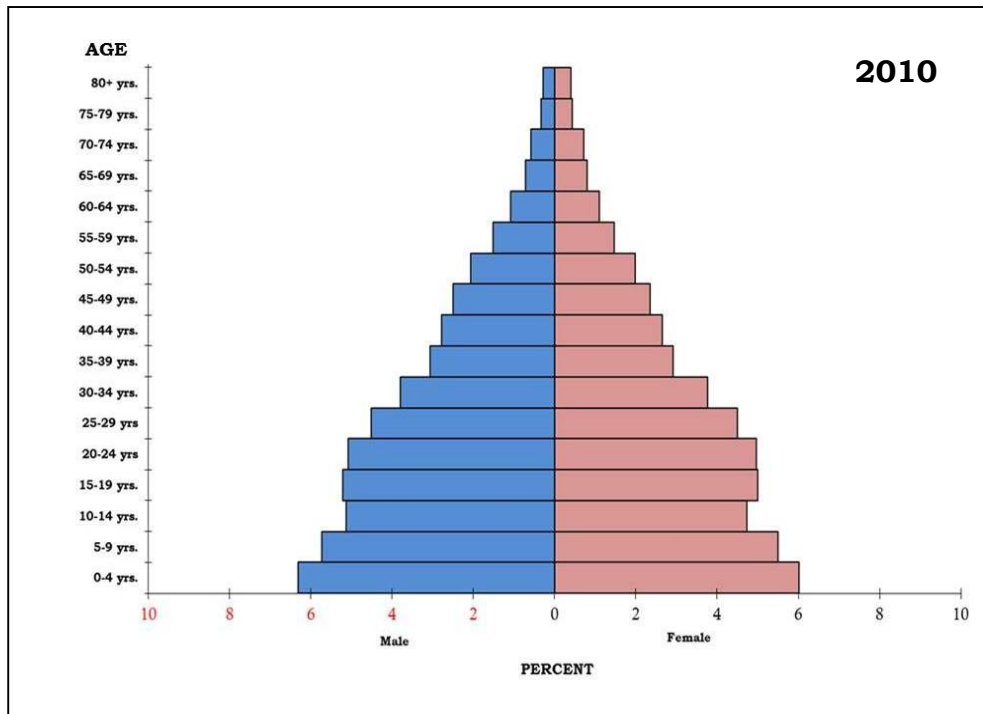
In 2004 the United Nations projected that beginning 2015, the Philippines will open a “demographic window” where its working age population – those aged 15 to 64 years old - will be proportionately larger than its dependents including those who are either too young or too old to work. It is said that having a large working age population will translate to, among others, more production, more consumption, increase in investments and savings, and the expansion of a country’s tax base.

Based on projections using the 2010 Census of Population, the region’s population distribution is still considered broad-based (Figure 13.1). The population of the younger age group 0-14 years old constituted about 32 percent of the total population while those aged 65 and over was 0.05 percent. The working age group or those aged 15-64 years old accounted for about 63.3 percent. This translates to a

youth dependency ratio of 50.7, an old-age dependency ratio of 7.3 and a total dependency ratio of 58. The dependency ratio indicates how many young or old dependents are being supported per worker or those belonging to the working age population. That is, every 100 workers support 51 young people and 7 elderly.

The 2015 population projection shows a slight change in the population age structure with those belonging to the young age group accounting for a lower 30.7 percent while those in the elderly group will remain unchanged, while the share of the working age population is projected to increase to about 64.7 percent of the total population. This translates to a lower young dependency ratio of 47.4 and a total dependency ratio of 54.7. The proportion of those in the elderly group is projected to remain unchanged.

**Figure 13.1 2010 Census-Based Population Pyramid by Five-Year Age Group and Sex (Medium Assumption), CAR: 2010 and 2015**



Population projections for 2020, 2030 and 2040 indicate a progression of a narrowing of the base or young population, and a growing working age and elderly population.

By 2040, the young dependency ratio is projected to be at 31.6, the old-age dependency ratio at 11.8 and a total dependency ratio of 11.8. That is, a smaller young population to support but an increase in the number of the elderly to support.

CAR's population aged 0-14 is projected to peak in 2030 at 587,700 before declining in the next decade to 551,600 (Table 13.1). The region's working age and elderly population are both projected to peak in 2040. But even as the total regional population growth rate has slowed, the female population aged 15-49 or the number of women in the childbearing age group is projected to steadily increase numbering 674,200 by 2040. This implies

that the region's population will continue to increase given that in the 2013 National Demographic and Health Survey (NDHS) the total fertility rate (TFR) in the region was at 2.9 compared to the wanted fertility rate of 2.3 and from the ideal 2.1 or replacement fertility level. TFR refers to the number of children a woman would have throughout her entire reproductive or childbearing age subject to the prevailing age-specific fertility rate (ASFR).

Benguet including Baguio City will be most challenged as population in these areas will continue to increase and account for the biggest. This is even as both areas become more urbanized accompanied by problems of overcrowding, congestion and joblessness unless policies to spread development in adjoining areas or elsewhere in the region are pursued. Likewise, out-migration in rural areas especially in Mountain Province (see Chapter 3 on Demographic Trends) will also need to be addressed.

## Assessment and Challenges

**CAR's population growth slowed amid continuing high fertility and high incidence of teenage pregnancies.** While CAR's population growth rate has slowed since 2000 (refer to Table 3.3), results from the 2013 NDHS reveals that the TFR of women in the region was still at 2.9 compared to the wanted fertility of 2.3 or the ideal 2.1 replacement fertility level. The same survey also revealed that the mean ideal number of children for women age 15-49 in the region remained at a high 3.1. This is even as the median age at first

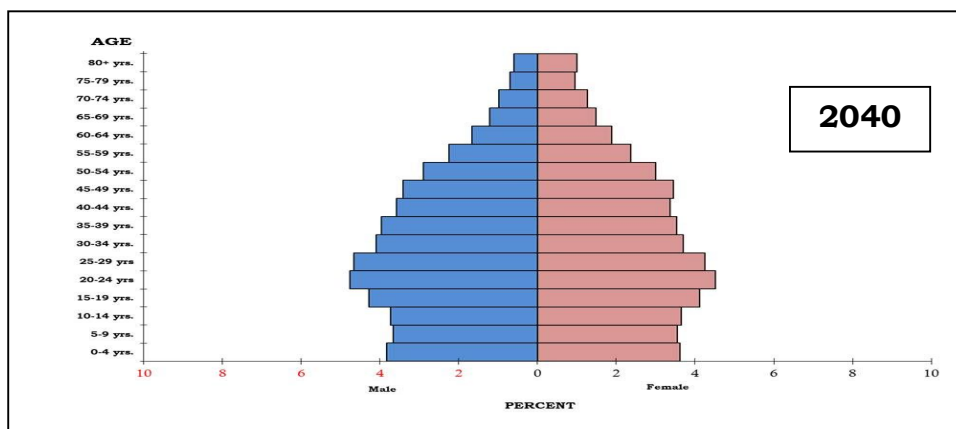
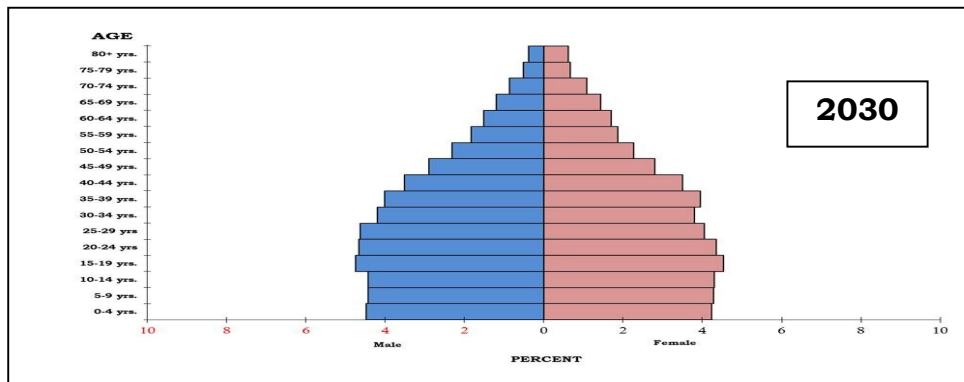
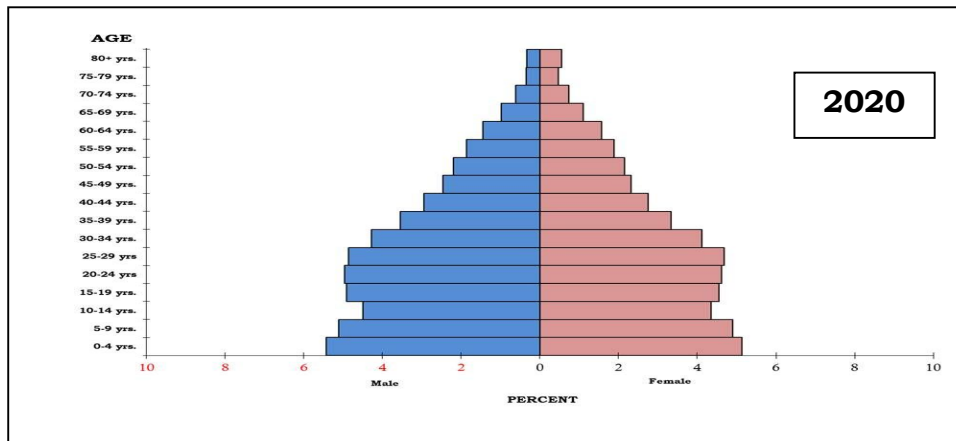
birth in the region increased to 23.4 in 2013 compared to 22.1 in 2008.

Teenage pregnancy in the region is also a cause for concern as early pregnancy brings with it not only health problems for young mothers but also to their child. The latest Young Adult Fertility and Sexuality Study (YAFS4) revealed that CAR recorded the highest teenage childbearing rate of 18.4 percent in 2013, higher than the national average of 13.6 percent. The 2013 NDHS also showed that 28.5 percent of women age 15-24 have begun

childbearing which is higher than the 25.9 percent recorded in 2008. It is important to delay the beginning of childbearing as this contributes to fertility decline. Further,

teenage mothers are exposed to different risks that are likely to affect their health and subsequently their quality as potential human resources in the economy.

**Figure 13.2 2010 Census-Based Population Pyramid by Five-Year Age Group and Sex (Medium Assumption), CAR: 2020, 2030 and 2040**





**Table 13.1 Projected Population by Selected Age Group, CAR: 2010-2040 (Medium Assumption)**

Age Group/Area	2010	2015	2020	2030	2040
<b>Population 0-4</b>					
Phil	10,767,800	11,327,300	11,475,800	11,043,800	10,119,600
CAR	178,100	199,800	205,700	195,700	186,700
Abra	26,700	25,300	25,300	24,100	22,500
Apayao	13,600	15,600	16,200	16,200	15,800
Benguet	71,000	81,800	83,200	76,700	71,800
Ifugao	23,700	27,600	29,000	28,000	27,800
Kalinga	24,700	28,200	29,600	28,800	27,400
Mountain Province	18,400	21,300	22,400	21,900	21,400
<b>Population 0-14</b>					
Phil	31,335,400	32,282,200	33,311,200	33,629,800	31,534,200
CAR	522,500	546,700	572,300	587,700	551,600
Abra	76,300	76,800	75,500	72,300	67,500
Apayao	39,500	41,500	44,700	48,000	46,400
Benguet	213,000	222,100	230,300	231,700	211,300
Ifugao	67,800	72,900	79,000	84,000	81,500
Kalinga	72,300	76,100	81,100	86,000	81,500
Mountain Province	53,600	57,300	61,700	65,700	63,400
<b>Population 15-64</b>					
Phil	57,773,900	64,406,300	70,572,500	82,146,900	92,142,500
CAR	1,031,500	1,153,100	1,273,200	1,509,500	1,745,800
Abra	145,000	157,400	171,200	196,400	217,100
Apayao	69,200	78,800	87,300	104,900	122,800
Benguet	484,600	540,400	596,100	697,100	795,700
Ifugao	116,800	132,600	147,200	181,600	218,900
Kalinga	122,700	138,700	154,000	185,100	217,500
Mountain Province	93,200	105,200	117,400	144,400	173,800
<b>Population 65 &amp; over</b>					
Phil	4,025,800	4,873,800	6,064,200	9,560,800	13,855,500
CAR	75,300	83,700	99,800	152,200	205,400
Abra	15,900	16,300	18,000	24,200	30,600
Apayao	5,200	5,800	6,800	10,300	14,300
Benguet	27,300	32,900	41,700	69,200	95,100
Ifugao	8,700	9,000	10,900	16,300	22,400
Kalinga	9,100	10,100	11,900	17,600	23,800
Mountain Province	9,100	9,600	10,500	14,600	19,200
<b>Female 15-49</b>					
Phil	23,972,000	26,274,800	28,269,600	32,141,600	34,930,900
CAR	425,800	469,600	513,200	606,900	674,200
Abra	57,100	61,100	66,400	76,300	81,800
Apayao	27,900	31,500	34,500	41,400	48,200
Benguet	205,900	225,700	245,300	284,800	306,300
Ifugao	47,900	53,700	59,100	73,200	85,900
Kalinga	49,900	55,900	61,500	73,600	84,600
Mountain Province	37,100	41,700	46,400	57,600	67,400

Source: PSA

A proximate determinant in reducing fertility is the use of any contraceptive method whether modern or traditional. In the 2013 NDHS, more than half (57.8%) of currently married women age 15-49 in the region had a desire to limit childbearing. The survey also showed that 44 percent used any modern method while 17.2 percent used traditional methods. Thus, about 38.8 percent were not currently using contraception. In terms of need and demand for family planning, 61.2 percent of currently married women age 15-49 in CAR have a met need for contraception, that is, they are currently using a method. About 40.6 percent of women are using contraception to stop childbearing while 20.6 percent are using contraception to delay their next birth. About 12.4 percent of women in the region still have unmet need for family planning – 5.7 percent of this is for spacing and 6.7 percent for limiting births.

The full implementation of the Republic Act 10354 or the Responsible Parenthood and Reproductive Health (RPRH) Act of 2012 is key to sustaining fertility reduction in the region. The signing of Executive Order No. 12, series of 2017, “Attaining and Sustaining “Zero Unmet Need for Modern Family Planning” through the Strict Implementation of the Responsible Parenthood and Reproductive Health Act, Providing Funds Therefor, and for Other Purposes” hopes to meet the need for modern contraception especially among poor households by 2018. This, along with other reproductive health services, aims to help couples achieve their desired family size.

**Even as CAR remains the least populated region in the country, the urban-rural distribution of population is the bigger problem.** Economic opportunities have largely been concentrated, and consequently population in urban or urbanizing areas specifically Baguio City and La Trinidad and in capital towns of the provinces resulting to congestion or urban decay.

Implementing a balanced growth development strategy with two primary growth centers located in the southern and northern areas of the region along with secondary and tertiary growth centers dispersed across the region hopes to address the inequity in the spatial distribution of economic opportunities. Increasing economic activities and employment opportunities in rural areas and/or efficiently connecting rural farmers, small and other producers in the hinterland to urban or local town centers as markets for their products is needed. Connecting rural farmers and producers to the market value chain may also help address or even deter the large out-migration in rural areas.

**While the regional employment rate is high, there is a need to improve on the quality of jobs to reduce underemployment.** With the region’s population age structure expected to bulge in 2020, there is the imminent challenge of creating jobs and providing job opportunities to absorb the increase in the working age population especially teenagers and young adults. While the regional employment rate remained at an average 94.9 percent in 2011-2015, the underemployment rate was at an average

high of 15.7 percent in the same period with the highest underemployment rate of 20.8 percent recorded in 2015. This reflects the poor quality of jobs as the underemployed include all employed persons who express the desire to have additional hours of work in their present job or an additional job, or to have a new job with longer working hours.

Contributing to the high underemployment is that almost half of the employed are in the agriculture sector where work is seasonal or where wages remain low. Also, even as the number of wage and salary workers has increased over the years, the number of unpaid family workers has not significantly improved.

The challenge of providing quality jobs with improved remuneration will be even more pronounced with the expected increase in the number of those entering the labor force especially among young adults. Addressing youth unemployment will be a concern and availability of data at regional and sub-regional levels will be necessary to determine the magnitude of the problem.

Increasing the ability of the economy to absorb the larger number of workers is necessary by promoting and encouraging investments in strategic and priority sectors seen to improve job generation. Policies that will prepare young adults joining the labor force, e.g., enhancing their skills especially in technology- or knowledge-based industries, improving their access to jobs, addressing job-skills mismatch. With increasing globalization and the reality of ASEAN economic integration, existing skills and

competencies of workers need to be up-scaled to global standards for them to survive competition for jobs in the local and international labor market.

**Improving the educational status especially of women and children have a positive effect on fertility and on the quality of future human resources for the economy.** Researches show that education has a positive relationship on wanting no more children or in delaying age at marriage and/or raising the age at first birth. But data on completion rates remain low at 86.2 percent for elementary education and 69.8 percent for secondary education in school year 2015-2016.

Young women need to be a special focus as the series of NDHS shows that young women with no school or only elementary schooling are more likely to have begun childbearing earlier than their more schooled counterparts. Better educated women are also more likely to join the labor force and to find work thus delaying age at marriage or age at first birth. More educated women are also more likely to use contraception. Given the ability of women to earn income, women who are employed are more likely to provide better family health and nutrition. Educated women can increase productivity improving the quality of the work force which can also lead to decisions to have smaller families.

Increasing child survival rates through better infant and child health services can also influence the decision on the number of children to have. Full immunization of children remains an unachieved target for the region in the past Plan period at just

72.4 percent. Services such as pre- and post-natal care, child immunization, nutrition programs and the like are necessary support programs. Likewise, the health of children and teenagers can affect their performance in school determining their ability to complete their education and determining the quality of the future labor force.

Youth health development should also be a focus as adolescence is the transition to adulthood. Recent surveys on adolescent health and sexuality show that the Filipino youth are also in transition. The young of today have changing views on pre-marital sex with an increased level of sexual experience at younger ages exposing them to the risks of unprotected sex, teenage pregnancies and early childbearing. The NDHS 2013 shows that the proportion of women age 15-24 who have begun childbearing reached 28.5 percent, higher than the 25.9 percent recorded in 2008. As earlier mentioned, the YAFS4 Study also showed CAR recording the highest teenage pregnancy rate in 2013. Investing in adolescent health and education is crucial as they need to be prepared to become the future work force in the economy.

**There is a need to help build a consensus about the need for an effective population policy at the national and local levels to take advantage of the benefits of the demographic window.**

Maximizing the demographic dividend requires an appreciation and understanding of the interrelationship between population and development variables among policymakers and program implementers. Thus, the need for PopDev integration in local development plans to amplify the benefits in taking advantage of the demographic window and showing the disadvantages in further postponing the transition.

To pursue evidence-based decision making, the availability of demographic and other relevant data for local planning is crucial. As it is, data from national surveys are often limited to the regional and in some cases provincial level. Providing timely, relevant and updated PopDev data for local planning will be an important step towards increasing awareness and appreciation in realizing the benefits of the demographic dividend. This includes continuing capacity-building of local planners on PopDev integration, assistance in the development and management of a local database that includes not only survey but also administrative data, the conduct of research or studies specifically on migration, among others.

## Strategic Framework

To achieve the overall PDP/RDP goal of laying a strong foundation for inclusive growth, a high-trust and resilient society and a globally competitive knowledge economy, the country's potential growth must be increased. This will be done by accelerating the demographic transition into low mortality and fertility levels that will facilitate the shift in the population age structure where the working age population comprises the bulk – also called the demographic window of opportunity.

Once the demographic precondition of this phenomenon is reached, the country/region will aim to maximize the potential dividend it offers to economic growth.

### Targets

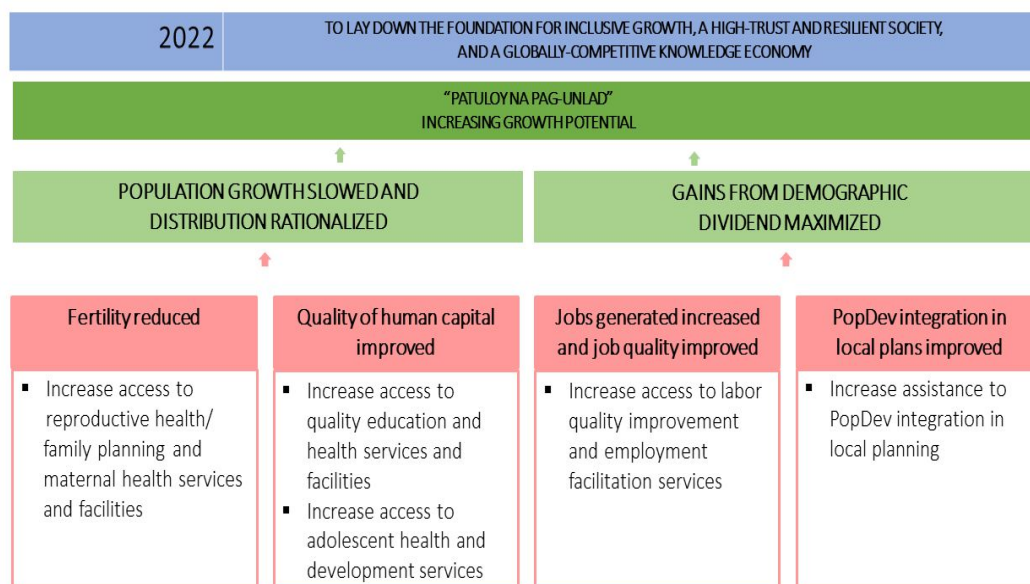
Table 13.2 shows selected indicators and end-of-plan targets to maximize the demographic dividend.

**Table 13.2 Plan Targets to Maximize the Demographic Dividend, 2017-2022**

Indicator	Baseline		End-of-Plan Target
	Year	Value	
Sector Outcome 1: Population growth slowed and distribution rationalized			
Total fertility rate	2013	2.9	2.1
Sector Outcome 2: Gains from demographic dividend maximized			
Employment rate (In percent)	2015	95.2	96.0
Maternal mortality rate (per 100,000 live births)	2015	45.07	52.0
Infant mortality rate (per 1,000 live births)	2015	10.98	15.0
Under-5 mortality rate (per 1,000 children aged 0-4)	2015	15.24	22.0

## Strategies

**Figure 13.3: Strategic Framework to Maximize the Demographic Dividend, 2017-2022**



The following strategies will be pursued to continue slowing down population growth and maximize the potential gains from the demographic dividend:

### Sub-sector Outcome 1: Fertility rate reduced

**Increase access to reproductive health/family planning services and facilities and address unmet demand for family planning and unwanted pregnancies.** This will require the effective implementation of Executive Order No. 12, series of 2017 with local government units encouraged to integrate the following strategies in their local development plans (LDPs) and investment programs to support universal access to RH services through demand generation, service delivery network and mobilization of community volunteers: (a) mapping of

areas to locate couples and individuals with unmet need for modern family planning; (b) capacitating and mobilizing local structures, including but not limited to health, population, social welfare, barangay operations, and other relevant offices to accelerate the implementation of the RPRH Law, particularly in the provision of modern family planning commodities and services; (c) conduct of intensive community-based demand generation and referral activities and ensure the provision of quality modern family planning information and services, within the principle of informed choice and voluntarism; and (d) engaging, collaborating and partnering with civil society organizations (CSOs) and the need for modern family planning in their respective localities.

## Sub-sector Outcome 2: Quality of human capital improved

**Improve and expand access to quality education and skills trainings** (e.g., implementation of K to 12, free higher education, and technical-vocational trainings) and ensure that students graduate with useful skills and general know-how facilitating their transition from school to employment. This also requires the review of course offerings to identify priority courses and skills trainings responsive to market needs both national and international specifically focusing on knowledge-intensive skills to match advances in science and technology.

**Increase and improve access to maternal health services and facilities** so as to reduce maternal deaths and improve survival rates of infants.

**Increase access to adolescent health and development services** to promote responsible sexuality among the young and help prevent early pregnancies and exposure to sexually transmitted infections (STIs).

## Sub-sector Outcome 3: Jobs generated increased and job quality improved

**Increase access to labor quality improvement and employment facilitation services** to upgrade skills of both laborers and professionals while also improving access of job seekers to labor market opportunities and improve labor mobility.

**Improve the regional business environment** especially in infrastructure, business processes and peace and order situation and encourage LGUs to become the prime movers of business in partnership with the private sector.

**Improve agricultural productivity** by investing in agribusiness research, connecting rural producers to the value chain and providing off-farm employment to increase farm incomes.

**Promote and foster entrepreneurship and innovation** especially among the young and indigenous communities as a strategy for inclusive growth.

**Strengthen and expand school-industry tie-ups to address job-skills mismatch or demands for professionals** to respond to skills requirements of labor markets, both national and international.

## Sub-sector Outcome 4: PopDev Integration in local plans improved

**Increase technical assistance to LGUs on PopDev integration in the development planning cycle** - planning, investment programming, budgeting and monitoring and evaluation - to increase awareness on the interaction of population and development variables and enhance the identification of programs/projects necessary to maximize the demographic dividend.

**Provide relevant, timely and updated data for local planning** that is disaggregated at sub-regional levels, including the adoption of the RAPID (Resources for the Awareness of

Population Impacts to Development)  
Model at the regional and local levels for  
PopDev integration in local plans.



# 14 Vigorously Advancing Science, Technology, and Innovation



# Vigorously Advancing Science, Technology and Innovation

Science and Technology (S&T) is widely recognized as an essential tool for battling poverty. It finds relevance in a wide variety of concerns, including efficiency of the use of natural and man-made resources, enhancement of the quality of products and services, mitigation of hunger, disease and malnutrition, and reduction of vulnerability of communities to disaster. S&T plays a critical role in nearly all aspects of development, but it is only in recent years, with the substantial increase in investments in research and development (R&D), that its significance is being given due recognition. Notwithstanding the positive developments affecting R&D in the Philippines, the share of R&D expenditures in the GDP of around 0.14 percent is still way below the global average of 2.04 percent, the UNESCO recommendation for developing countries of at least one percent, and that of some of the other ASEAN members. The country also produced a meager 262 researchers per million people on average based on 2015 population, compared to the average for East Asian economies at 1,020 per million. The country's low figures are consistent with the observation that its educational system produces a disparately larger number of graduates outside of science and engineering, and a much higher percentage of doctoral degree holders in the field of social sciences (PIDS, 2015). Even more dismal are the numbers for the scientific career system, which has on record only 150 career scientists since the 1980s.

In the absence of a Research and Development (R&D) arm, CAR's Department of Science and Technology (DOST) works through the three different R&D consortia – the Cordillera Regional Health Research and Development Consortium (CRHRDC), Cordillera Industry and Energy Research and Development Consortium (CIERDEC), and the Highland Agriculture Aquatic Resources Research and Development Consortium (HAARRDEC) - in propelling R&D in the region and aligning research initiatives with regional development objectives. The agency has also been

actively pursuing means through which S&T may be advanced with the agency's banner programs like the Small Enterprise Technology Upgrading Program (SETUP). It has been tireless in accessing even the farthest communities in the region in order to deliver its services to those who need it the most. As host to some of the nation's poorest communities, CAR had been selected for the pilot implementation of the Community Empowerment Through Science and Technology (CEST) Program, which counts Tanudan, Kalinga as one of its first beneficiaries. Through these and its other programs, the DOST

partners with other agencies and organizations in fulfilling its mandate. However, constraints that are innate to the sectors that it is assisting, such as low financial absorptive capacity among micro,

small and medium enterprises (MSMEs), as well as peace and order concerns in some of the region's municipalities, continue to hamper technological advancement in the region.

## Assessment and Challenges

### Low government spending on and support to R&D

Government, through DOST and its partner agencies, provides funding for R&D initiatives for both public and private higher education institutions (HEIs). However, while regional R&D expenditure remained constant at 0.14 percent of the GDP in 2011 and 2013, R&D expenditure in CAR went down to Php34 million in 2013 from around Php55 million in 2011. This corresponds to a decrease from 0.03 percent to only 0.02 percent of the GRDP. The 2013 figure represents only 0.22 percent of total expenditure of all regions for R&D, with NCR accounting for 50 percent.

Lack of support for R&D is evident not only in terms of budget allocation, but also in infrastructure complement. To date, there are only three Research Outreach Stations (ROS) in CAR, catering only to the provinces of Kalinga, Apayao and Abra. Furthermore, weak coordination is observed not only between and among the different concerned institutions, but also between mother and support agencies, as is the case with the Department of Agriculture (DA) and its R&D institutes. Government support also proves to be elusive with the tedious requirements in applying for grants, incentives, and other

forms of assistance. Also, the procurement of equipment for research is laborious and time-consuming, and it may be for this reason that many universities and hospitals have yet to upgrade their laboratory facilities.

### Low research and innovation productivity

**In CAR, employment under professional, scientific and technical activities has the second lowest average share in the services sector at 0.68 percent. Employment under Information and Communication is also low at 1.28 percent on average.**

Although the number of R&D personnel in CAR in 2013 at 467 may have increased by more than 100 percent from 90 in 2011, this only represents one percent of the total number of researchers nationwide of 36,517. More than half of this total were documented in NCR (36%) and CALABARZON (25%) combined. The only regions with lower numbers compared to CAR are Regions IX (Zamboanga), XIII (CARAGA), and ARMM (Compendium of S&T Statistics, 2015).

**Table 14.1 Average Percentage Share of Employment by Service Subsector, CAR: 2011-2015**

SUBSECTOR	AVERAGE SHARE IN TOTAL - EMPLOYMENT FOR SERVICES
Transport, Storage and Communication	11.44%
Wholesale and Retail Trade	31.73%
Financial Intermediation	1.42%
Real Estate, Renting and Business Activities	1.65%
Public Administration and Defense, Compulsory Social Security	15.72%
Other Services	5.52%
Hotels and Restaurants	7.8%
Education	10.78%
Health and Social Work	3.22%
Private Households with Employed Persons	4.21%
Extra – Territorial Organizations and Bodies	0%
Information and Communication	1.28%
Professional, Scientific and Technical Activities	0.68%
Administrative and Support Service Activities	3.92%
Arts, Entertainment and Recreation	0.64%

Source: PSA, RSET 2016

**Table 14.2 Number of Researchers, Philippines and CAR: 2013**

	TOTAL	GOVERNMENT	SUCs	PRIVATE HEIs	PRIVATE NON-PROFIT	PRIVATE INDUSTRY	RANKING	% SHARE TO TOTAL
Philippines	36,517	3,774	7,646	2,543	227	22,327		
CAR	467	50	171			246	14th	1%

Source: Compendium of Science and Technology Statistics, December 2015

Through the Balik Scientist Program, five scientists were “brought home” to assist three of the region’s Higher Education Institutions (HEIs) in their researches. Under the Balik Scientist Program, through which the services of Filipino scientists who are currently based overseas are requested by government and HEIs, five scientists have provided their services in CAR since 2008. The researches and advisory services were rendered upon the request of three HEIs, and were in the

fields of physics, biology and engineering. Short term services range from 30 days to three months, while long term services may last up to three years. Currently, advocacy on the program is being undertaken by the three S&T consortia. Considering that only a small percentage of the region’s employment falls under S&T, the S&T subsectors, while highly productive, are unable to contribute significantly to the regional services gross value-added (GVA). In agriculture, even as

Luzon is the top palay-producing area in the country, CAR, like CALABARZON, contributed only around four percent of the total production for the island. This share is the lowest for Luzon's seven regions. Similarly, while coffee had been identified as one of the region's priority commodities, CAR only accounts for around seven percent of national production. These are indications of low agricultural productivity that is aggravated by insufficient technical knowledge and low technological adoption. Low innovation is also demonstrated by the insignificant contribution of CAR's MSMEs to the region's total exports through the years.

### Weak S&T Culture

**Only a small number of S&T graduates are produced in CAR, even as its place as the education center of the North presupposes that the region boasts of quality universities and colleges.** Low turnout of masters and doctorate graduates in the field of S&T was also observed. Appreciation of science in the region remains relatively low even as the DOST, with the help of the Department of Education (DepEd), continues to utilize its resources to promote S&T to lower age groups, through programs targeting elementary and high school age children. The Philippine Science High School (PSHS) campuses and the science programs of public high schools in the region have expanded and have observed an upward trend in applications, but this trend has not been apparent in higher education.

In its goal of integrating a culture of S&T and developing human capital by helping

produce a population of scientifically literate citizens, the DOST continues to establish PSHS campuses outside of Metro Manila, and to advocate its scholarship programs. The PSHS campus that was opened in Baguio City increased its enrollment to 89 for SY 2016 – 2017 from only 66 during its first year in 2009. Its graduate turnout increased from 89 percent in 2013 to 95 percent in 2015.

In relation, through the STARBOOKS program, which makes available digitized science and technology reference material, and which continually expands its library and distribution, access to S&T data and information had been made easier not only for students and educators, but also the general public.

**All except for one CAR LGU was able to produce at least one DOST scholar, and the number of DOST scholars from CAR continues to increase annually. However, tracking mechanisms for graduates remain weak.** Meanwhile, towards the end of 2015, all cities and municipalities in the region, with the exception of Lacub in Abra, were able to produce at least one DOST scholar. The number of DOST scholars particularly under Republic Act (RA) 768, which provides undergraduate science and technology scholarships for students from subsistence-level families, increased year on year.

A new scholarship program, the Junior Level Science Scholarship Program under RA 10612, was launched in 2014. Beneficiaries under this grant will be required to teach S&T subjects under the K–12 program. Likewise, the DA also seeks

to advance technology and innovation in agriculture through a separate scholarship program. It also offers e-learning courses through the Agricultural Training Institute

(ATI), aside from its trainings, consultation services, and information and education campaign (IEC), mostly for agriculture and fisheries stakeholders.

**Table 14.3 DOST and DA Scholars, CAR: 2010 – 2015**

SCHOLARSHIP	2010	2011	2012	2013	2014	2015	TOTAL
<b>DOST</b>							
RA 7687	25	26	77	85	141	160	514
Merit	6	1	9	10	16	27	69
RA 10612					11	21	32
<b>Total</b>	<b>31</b>	<b>27</b>	<b>86</b>	<b>95</b>	<b>157</b>	<b>187</b>	<b>583</b>
<b>DA Scholars (SUCs)</b>					31	3	

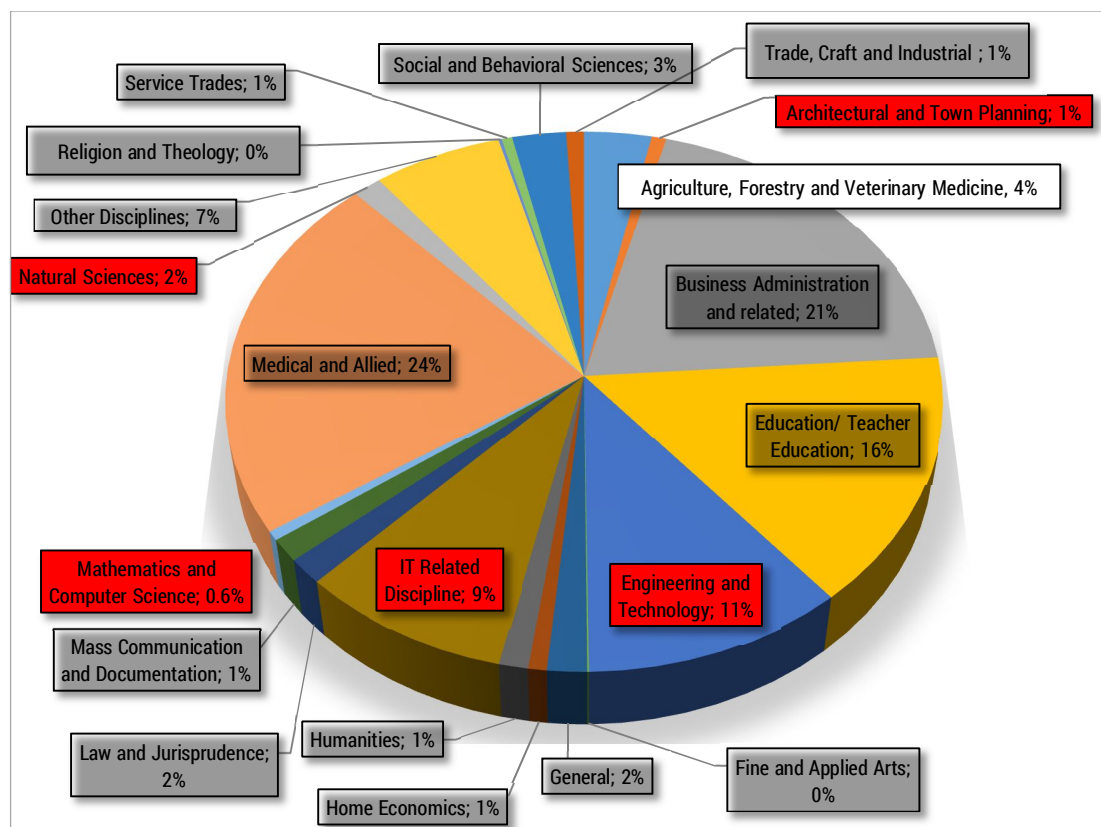
Source: DOST, DA

However, CHED figures for tertiary graduates show that the total shares of science-related courses to the total number of graduates had been relatively low since 2001. Excluding data for medical and allied programs, graduates of science-related courses only constitute a little more than 20 percent of the total graduates produced for the period.

The number of enrollees in these courses from 2011 to 2015 has remained fairly constant, except for engineering. Increases for the five disciplines, if any, were minimal. The stagnant number of enrollees in S&T courses shows how limited the perceived options are for S&T graduates in terms of local employment, opportunity, and support.

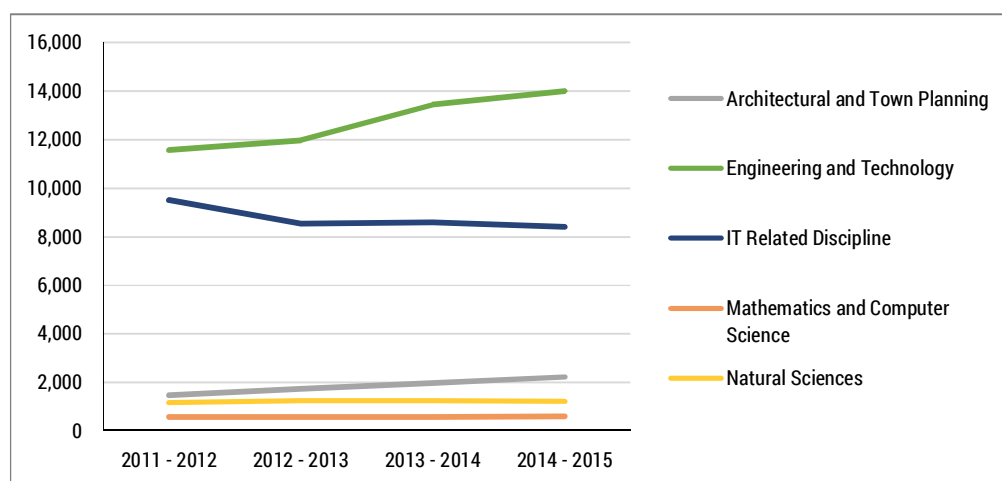
This small portion is contributed by five disciplines, namely Architectural and Town Planning, Engineering and Technology, IT-Related Discipline, Mathematics and Computer Science, and the Natural Sciences. Comparatively, while 21 percent of graduates during the periods studied finished business administration and related courses alone.

**Figure 14.1 Percentage Share of Graduates per Program, CAR: SY 2001-2002 – SY 2014-2015**



Source: PSA, RSET 2016

**Figure 14.2 Enrollees in Science and Technology Programs, CAR: 2011 – 2015**



Source: CHED



In comparing enrollees in 2011 to graduates in 2015 for four-year courses, and in 2016 for five-year programs like engineering, the average turnout for all disciplines is around 17 percent. All S&T-

related courses fall slightly below this average, but the number of graduates of Architectural and Town Planning is way below the average across all programs at 6.87 percent.

**Table 14.4 Enrollees and Graduates in Science and Technology Courses, CAR: SY 2011-2012 – SY 2015-2016**

PROGRAM	ENROLLEES, SY 2011 – 2012	GRADUATES, SY 2014 – 2015	GRADUATES, SY 2015 – 2016	PERCENT OF ENROLLEES THAT GRADUATED
Architectural and Town Planning	1,484	102		6.87
Engineering and Technology	11,573		1,517	13
IT – Related	9,525	1,553		16
Mathematics	566	80		14
Natural Science	1,177	193		16

Source: CHED

### Low adoption of technological advances among MSMEs in the manufacturing and agriculture sectors

**The DOST SET – UP, one of the agency’s landmark programs, funded more than 200 projects since 2010.** Numbers remain low under the DOST SETUP core, a cost-sharing intervention, because MSMEs are constrained by their capacity to shell out their financial counterpart. Under the program, only MSMEs that have been operating for at least three years may qualify, under the assumption that these firms have the capacity to pay within three years. Low adoption among many MSMEs in the agriculture and manufacturing sectors, particularly in the Cordilleras, may also be traced to its character as a region strongly rooted on tradition. Due to CAR MSMEs’

aversion towards incurring risk and modernizing their products and approaches, few enterprises in the region progress in terms of production capacity. Many micro establishments do not grow in size, continually relying on government programs to sustain operations, and failing to penetrate larger markets. In addition, many MSMEs in the region, especially in the rural areas, have no access to the internet, and have no knowledge about national and international product standards and recent innovations.

The DOST, in performing its mandate to pursue sustainable science and technology programs that will create livelihood opportunities and improve the quality of life for the people of CAR (DOST Annual Report 2011), strives to come up with new and more responsive programs, reach an increasing number of beneficiaries, and improve its figures year on year. The

DOST SETUP core and non-core components, which provide assistance to MSMEs, MSME organizations, and local communities in the form of technology transfer and commercialization, have funded more than 400 projects throughout the region from 2010 to 2015, mostly under the food processing sector. Through

the introduction of mechanized and semi-mechanized equipment under the DOST SETUP, beneficiaries have reported increased productivity, sustained production even outside of planting and harvesting seasons, and a broadened range of products and services.

**Table 14.5 Approved Projects Under DOST Small Enterprise Technology Upgrading Program (Core and Non - Core)**

SECTOR	2010	2011	2012	2013	2014	2015	Total	% of Total
Food	14	11	31	30	35	16	138	52
Furniture	7	1	7	3	3	5	26	10
Metals and Engineering	3	0	14	9	10	8	44	17
Gifts, Décor and Houseware (GDH)	6	3	13	3	6	7	38	14
Agriculture, Marine and Aquaculture	2	0	3	0	3	2	10	4
Health and Pharmaceuticals			1				1	0.4
Environment/ Energy	1						1	0.4
Horticulture	5						5	2
<b>Total Core Projects</b>	<b>38</b>	<b>15</b>	<b>69</b>	<b>45</b>	<b>57</b>	<b>38</b>	<b>263</b>	
<b>Community – Based Projects/ CBPs (SETUP Non – Core)</b>	<b>22</b>	<b>38</b>	<b>34</b>	<b>52</b>	<b>45</b>	<b>29</b>	<b>220</b>	

Source: DOST

**Table 14.6 Approved Projects Under the DOST Small Enterprise Technology Upgrading Program (Core) by Province, CAR: 2010-2015**

PROVINCE	2010	2011	2012	2013	2014	2015	TOTAL	% OF TOTAL
Abra	0	3	11	4	3	6	27	10
Apayao	3	4	6	6	7	6	32	12
Baguio City	9	4	8	8	10		39	15
Benguet	8		12	9	9	9	47	18
Ifugao	9	1	9	4	5	7	35	13
Kalinga	7	2	10	7	11	3	40	15
Mountain Province	2	1	13	7	12	7	42	16
<b>Total</b>	<b>38</b>	<b>15</b>	<b>69</b>	<b>45</b>	<b>57</b>	<b>38</b>	<b>262</b>	

Source: DOST

Even as the number of projects fell in certain years, the projects have been distributed relatively evenly across all CAR provinces and Baguio City. Abra has the smallest share for the period at 10 percent.

Similar to the DTI, the main agency tasked with fostering MSME development, the DOST also conducts trainings and product packaging development to supplement the services provided under the DOST SETUP.

**At least three big projects under DOST – Hi-Impact Technology Solutions (HITS) were implemented in CAR, two of which operate in Benguet. The BLISTT Automated Guideway Transit (AGT), a project that is still to be approved, is seen as an alternative solution to the BLISTT’s transportation and traffic woes.** Several projects in the region, like the Food Innovation Center in La Trinidad, Benguet, Ceramic Water Filter Production Center in Bauko, Mountain Province, and Gold–Copper Processing Facility in Itogon, Benguet, have been completed through the DOST’s Hi–Impact Technology Solutions (HITS) between 2010 and 2015. Another HITS project, the Complementary Food Project, through which healthy food for communities with high malnutrition incidence are developed, was also launched in Apayao State College in 2015. Lastly, in 2016, the pre–feasibility study on the Baguio–La Trinidad–Itogon–Sablan–Tuba–Tublay (BLISTT) Automated Guideway Transit (AGT), an alternative solution to the BLISTT’s worsening traffic problem, was finalized and presented to the BLISTT governing and implementing bodies.

## Lack of critical data on S&T indicators

The number of Intellectual Property (IP) applications received by the Intellectual Property Office (IPO) satellite office in Baguio City had been tabulated since 2009, but data was not segregated according to region of origin until 2016. The IPO satellite office caters to both CAR and Region I. In addition, figures for approved IP applications per region is also unavailable. Similarly, The Science and Technology Competitiveness Rankings of the Philippines does not include data on the regions’ individual performances. This makes it difficult to assess how innovative or advanced CAR is relative to other regions. Moreover, while the different state universities and colleges (SUCs) submit data on their scientific researches, the number of researches undertaken by other higher education institutions (HEIs) in the region are not being consolidated by the DOST or the CHED.

In relation, tracer studies that have been put in place to track S&T scholars and determine whether or not they were employed as S&T professionals only gather data through online survey forms. With the low number of respondents, the data gathered does not accurately measure the percentage of S&T graduates who are subsequently absorbed in S&T–related fields. Similarly, information on the percentage or number of TESDA trainees who find overseas employment in their areas of expertise is not being tabulated.

**Increased awareness of IP among the region's inventors and innovators was observed with the establishment of an IPO satellite office in CAR. Applications jumped by more than 100 during its first year of operation.** Nonetheless, the importance of innovation was highlighted with the establishment of IPO satellite offices in 2009 in key locations all over the Philippines. With one satellite office located in Baguio City, awareness of IP rights in the region has gradually heightened. It helped that the IPO is also active in advocating its services during DTI-conducted seminars and fora. The DOST, for its part, endorses patent applicants from CAR to the Technology Applications and Promotions Institute (TAPI) for financial and technical assistance when necessary.

From a total of only ten applications in 2009 for CAR and Region I, applications processed by the IPO satellite office jumped to 100 in 2010, indicating effective advocacy measures and increasing interest among local inventors and innovators. Most of the applications are for trademark, followed by utility models.

The region's SUCs are also active in R&D. Research topics covered a wide range of subject areas, but were mostly on agriculture production and processing of food made from locally sourced agricultural products. However, most of the region's commercialized technologies come from only one university

***Table 14.7 Number of Intellectual Property Rights Applications, CAR and Region I: 2010-2016***

IPR	2010	2011	2012	2013	2014	2015	2016**	TOTAL
Trademark	40	46	53	45	68	97	63	<b>412</b>
Industrial Design	1	33	24	5	0	1	6	<b>70</b>
Patent	9	5	1	1	1	1	2	<b>20</b>
Utility Model	50	31	49	16	36	33	73	<b>288</b>
Copyright		6	8	14	30	39	48	<b>145</b>
<b>Total</b>	<b>100</b>	<b>121</b>	<b>135</b>	<b>81</b>	<b>135</b>	<b>171</b>	<b>192</b>	<b>935</b>

*\*The IPO satellite office in Baguio City receives applications for both CAR and Region I. Segregation of applications by region commenced in 2016, but around 95 percent of the figures above are from CAR.*

*\*\*2016 figures are for CAR only*

**Source:** DOST

**Table 14.8 Approved Intellectual Property Rights Applications by SUCs, CAR: As of February 2017**

SUC	COPYRIGHTS	PATENTS	UTILITY MODELS	COMMERCIALIZED TECHNOLOGIES
Abra State Institute of Science and Technology (ASIST)	29	7		
Apayao State College (ASC)	71		24	6
Benguet State University	191	6	27	48
Ifugao State University (IfSU)	6	17		
Kalinga State University (KSU)		27		
Mountain Province State Polytechnic College (MPSPC)	21	1		

Source: CAR SUCs

### Mismatch of R&D thrusts to industry needs

The DOST–CAR, in lieu of a research arm in the region, facilitates coordination with its partners in government, the academe, and the private sector, through three consortia, namely the HAARRDEC, the CRHRDC, and the CIERDEC. Through these consortia, priority areas in the fields of agriculture, health, industry, and energy are decided, technology transfers are facilitated, information dissemination is undertaken, and R&D inputs are shared. However, collaborative activities between government, industry and academe remain limited.

One noteworthy undertaking by the DOST in 2015 is its conduct of the Computer Numerically Controlled (CNC) machine training for operators of Moog Controls. This 60–day training for 160 programming operators employed by the firm was a direct response to the request for assistance from the company, which was experiencing brain drain at the time. Similar activities in which interventions respond to specifically identified needs, and not just to general concerns, have to be more frequent, in order to bolster collaboration and support between and among S&T stakeholders.

## Strategic Framework

The strategic framework is anchored on the goal of laying down “a solid foundation for more inclusive growth, a high trust society and a globally competitive knowledge economy”. With increasing globalization and freedom of movement of goods and services, the Philippines will fall further behind its counterparts if its R&D

continues to be unsupported. Encouraging S&T adoption, R&D, and innovation in the region by enhancing capacities, facilitating technology transfer and utilization, and strengthening S&T culture, is seen to improve its standing in terms of productivity, competitiveness, and, more importantly, quality of life.

## Targets

The advancement of science, technology and innovation in agriculture, industry and services will be pursued during this

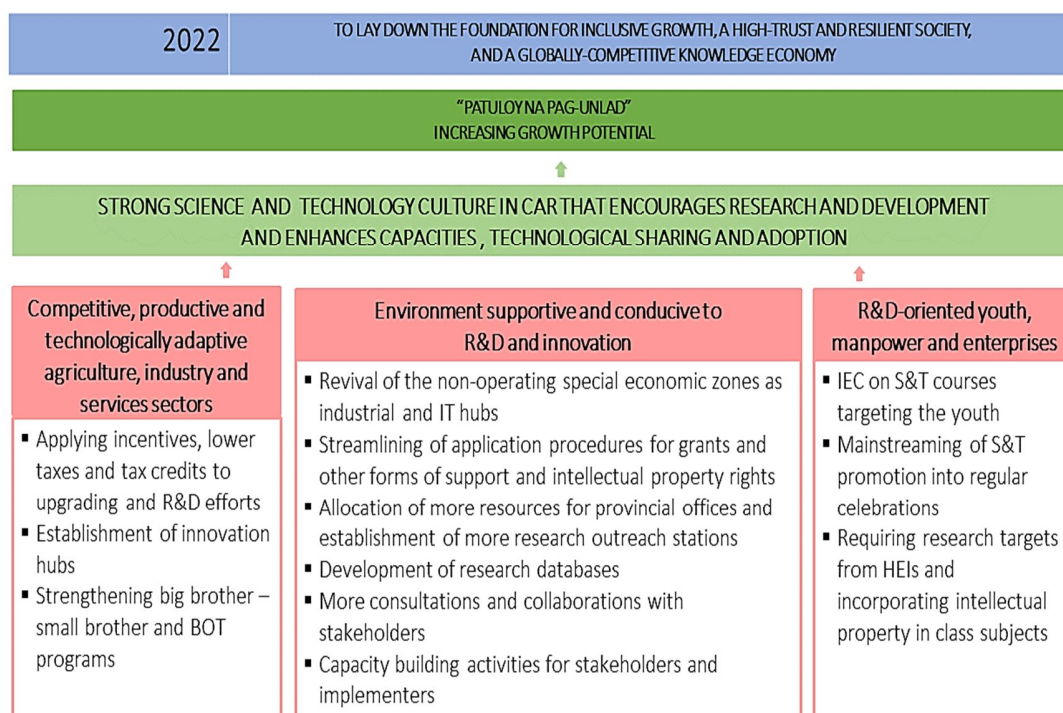
planning period. Efforts that are aligned with this objective will be measured through the following targets:

**Table 14.9 Plan Targets to Leverage Science, Technology and Innovation, 2017-2022**

INDICATORS	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	
Subsector Outcome 1: Competitive, Productive and Technologically Adaptive Agriculture, Industry and Services			
Number of SETUP projects implemented			
Core	2002	5	288
Non-Core	2009	2	221
Investments generated	2016	53.744	310.464
Direct jobs generated	2012	539	5,226
Subsector Outcome 2: Environment Supportive of and Conducive to Innovation			
% of R&D expenditure in GRDP	2013	0.02%	Increased
Number of capacity building activities conducted for partners	To be determined		
Number of consultations with stakeholders	To be determined		
Subsector Outcome 3: R&D Oriented Youth, Manpower and Enterprises			
Number of IP applications processed	2016	192	Increasing
Number of IP applications approved			
Private persons	To be determined		
SUCs	2016	427	Increasing
Number of S&T course enrollees	2015-2016	27,733	33,709
Number of S&T course graduates	2014-2015, 2015-2016 (Engineering)	3,445	Increased

## Strategies

**Figure 14.2 Strategic Framework for Vigorously Advancing Science, Technology and Innovation, 2017-2022**



### Sub-sector Outcome 1: Competitive, productive and technologically adaptive agriculture, industry and services sectors

Local government units may encourage R&D activities and cut down costs of businesses and the academe by implementing incentives and lower taxes, and granting tax credits at the LGU level. LGUs and partner line agencies could also facilitate knowledge and technology transfers between and among like or related industries, between industry and the academe, and between government and the private sector, perhaps by establishing

innovation hubs, improving Build-Operate-Transfer (BOT) and other partnership schemes, and enhancing big brother-small brother programs. Meanwhile, the DOST and other implementers like the DA and the DTI, need to continue enhancing their support mechanisms and advocacy programs for start-ups, MSMEs, farmers, and MSME and farmer organizations, in order to increase the number of sustained enterprises in the region. Adoption of technologies among farmers will be encouraged as well, with the establishment of at least one ROS or extension, or one techno transfer facility, in every province, and the institutionalization of a program



on agribusiness incubation (Climate Smart Agriculture Series). Encouraging multi-cropping, crop rotation, and product diversification through accessible and inclusive support programs for farmers and farmer groups, will encourage innovation and transition towards high-value agriculture. Higher technological adoption among farmers will also entail promotion of mechanization and farming technologies directed towards farmers' organizations and cooperatives. The continual expansion of the coverage of the DOST's Regional Standards and Testing Laboratories (RSTLs) will also help upgrade the quality especially of agricultural products. Lastly, other existing interventions like technology provision and upgrading, calibration, packaging and labeling, technical consultancy and technological trainings and fora, need to be sustained and to undergo continual upgrading.

## Sub-sector Outcome 2: Environment supportive of and conducive to R&D and innovation

An initiative that is seen to strengthen efforts to advance innovation is the formulation of a harmonized national R&D agenda. Likewise, plans to establish a national innovation center had been unveiled in 2015 based on Silicon Valley in the United States and Block 71 in Singapore. The same concept inspired the creation of the Kelly Special Economic Zone in Itogon, Benguet which the current local chief executive wishes to revive. Similarly, there is also a clamor to reopen the Abra Special Economic Zone in Tayum as an IT hub. The creation of the IP depot, through which registrants can promote

their intellectual properties online on one end, and where investors and companies can search for ideas and inventions that can potentially address critical concerns on the other, is also one way through which inventor to investor linkages can be established.

In response to a study that found that firms in special economic zones were found to be more innovative, a study of the business climate and incentive structures of ecozone firms may need to be undertaken. In the same study, ecozone industries outside of the electronics and IT subsectors, specifically textile and food manufacturing, were also observed to be consistently behind in terms of innovativeness (SIA, 2009). In light of these findings, there might also be a need to study how R&D incentives for electronics firms may be replicated for other manufacturing establishments.

The presence of both the DOST and the DTI in the provinces, and of the IPO satellite office in Baguio City, makes access to their services easier and more convenient. But the need to simplify applications by doing away with redundant requirements, and authorizing approvals at the local level, for instance, needs to be looked into. The provincial offices of said line agencies also need to be given additional manpower and resources, especially if they are to reach even the remotest of the mountainous region's towns. With the success of these past programs in CAR in advancing S&T in the MSME sector, continuing the DOST-SETUP, CBPs, laboratory assistance, technical consultancy services, packaging and labeling and technology trainings and



fora, will facilitate MSMEs' transition towards a more R&D-receptive culture.

A database of researches conducted by all institutions with R&D mandates needs to be developed in order to monitor the development of R&D in the region, and to facilitate advocacy and commercialization of researches on priority sectors. Information on approved IP applications from CAR also need to be accessed in order to determine the region's performance relative to other regions. Advocacy on tracer studies in HEIs and training institutions need to be amplified, as well, in order to increase the number of respondents and gather more data on scholars after graduation.

Implementers also have to minimize the commonly used "one size fits all" approach, and to stratify interventions according to stages of MSME development, their needs, and other relevant attributes. Standardization of indicators, such as number of MSMEs assisted and jobs created, also has to be undertaken, in order to be more precise in measuring the impact of S&T programs. Collaborations between and among stakeholders will be strengthened, and initiatives will be sustained, with the establishment of a Regional R&D

Committee under the Regional Development Council. Capacity building of the members of the different R&D consortia also needs to be prioritized, and more resources need to be allocated for their researches and for the dissemination of the results. Holding stakeholders' fora and roundtable discussions that will gather government, academe and private industry representatives in one venue will facilitate the harmonization of R&D programs and interventions with actual needs and priorities.

### Sub-sector Outcome 3: R&D-oriented youth, manpower and enterprises

Low appreciation of S&T, as reflected in low enrollment numbers and graduate turnout, will be addressed with fortified information, education and advocacy programs that target the youth. Promotion of S&T should be mainstreamed in other regular celebrations such as National Children's Month, Consumer Welfare Month, National Rice Awareness Month, and others. The integration of IP in class subjects also needs to be looked into, as well as including IP applications among SUC and HEI targets.

# Legislative Agenda

**Table 14.10 Legislative Agenda for Vigorously Advancing Science, Technology and Innovation**

LEGISLATIVE AGENDA	RATIONALE
An Act Establishing the Science for Change Program	The Act aims to achieve a higher standard of S&T, by prescribing the basic policy requirements for the promotion of S&T and comprehensively and systematically promoting policies for the progress of S&T.
An Act Adopting Innovation as a Vital Component of the Country's Development Policies to Drive Inclusive Development, Promote the Growth of and National Competitiveness of MSMEs, and for Other Purposes	The Act intends to generate and scale up action in all levels and areas of education, trainings, research and development, towards promoting innovation and internationalization of MSMEs as drivers of sustainable and inclusive growth.
An Act Strengthening the Balik Scientist Program and Appropriating Funds Therefor	This seeks to strengthen the scientific and technological human resources of the academe, public institutions, and domestic corporations, through the promotion of knowledge sharing, thereby accelerating the flow of new technologies in the country.
Review of the National Guidelines of the Small Enterprise Technology Upgrading Program (SETUP)	A review will hopefully result to more lenient provisions on repayment schemes for micro enterprises in CAR, and differentiated assistance schemes based on economies of scale and level of entrepreneur beneficiaries.
Review of RA 8439 (Magna Carta for Scientists, Engineers, Researchers, and Other Science and Technology Personnel in Government and Other Pertinent Laws, Circulars, Orders, etc.), specifically on the provision of honoraria to researchers	This will resolve issues on the granting of honoraria to researchers in consonance with COA guidelines. There were instances in the past during which questions on the legitimacy and effectiveness of honorarium as an incentive for R&D were raised, and disallowances were issued by COA, even while there is legal basis for it.

PART V

# **ENABLING AND SUPPORTIVE ECONOMIC ENVIRONMENT**





# 15

## Ensuring Sound Macroeconomic Policy



# Ensuring Sound Macroeconomic Policy

A sound, stable and supportive macroeconomic environment is essential for expanding economic opportunities and fostering sustained growth. A fiscal sector that is responsible, strategic and supportive of inclusive growth can boost the economy and provide a stable environment that is conducive to investments. Monetary policy that ensures price stability with a stable and inclusive financial sector can support growth and improve access to economic opportunities. A strategic external trade policy regime enables Philippine enterprises to successfully compete in global markets and provide employment opportunities for Filipinos.

## Assessment and Challenges

**Regional economic growth was driven more by consumption expenditures of households and less by investments.** CAR's economic growth was propelled by household final consumption that consistently accounted for the biggest

share (Table 15.1). While investments or gross capital formation was the second biggest contributor, its value declined by an average 3.3 percent annually between 2011 and 2015 due to a huge drop in durable equipment investments.

*Table 15.1 Macroeconomic Indicators*

Indicator	2011	2015
<b>Gross Regional Domestic Expenditures (In billion pesos at 2000 prices)</b>	121.740	133.485
<b>Household Final Consumption</b>	69.015	85.567
<b>Government Final Consumption</b>	10.561	14.432
<b>Gross Capital Formation</b>	38.904	33.965
a. Fixed Capital	35.25	25.74
1. Construction	10.04	13.67
2. Durable Equipment	23.18	9.92
3. Breeding Stock & Orchard Development	1.97	2.09
4. Intellectual Property Rights	0.06	0.07
b. Changes in Inventories	3.65	8.23
<b>Net Exports</b>	3.261	(0.478)

<b>Internal Revenue Collection by Type of Tax (In million pesos)</b>	2,969.660	4,879.163
Tax on Income and Profit	1,953.272	3,268.030
Value-Added Tax	678.795	1,133.130
Percentage Tax	146.709	299.549
Excise Tax	58.596	7.692
Other Taxes	132.288	170.761
<b>Internal Revenue Collection by Province (In million pesos)</b>		
Abra	224.449	317.877
Benguet	575.938	816.848
Baguio City	1,610.437	2,402.618
Ifugao	143.416	228.170
Kalinga & Apayao	268.655	456.907
Mountain Province	146.765	217.072
<b>Inflation Rate (2006=100) (In percent)</b>		
CAR	3.2	1.4
Abra	2.7	0.5
Apayao	4.4	1.1
Benguet	2.7	1.7
Ifugao	3.1	0.7
Kalinga	4.5	0.5
Mountain Province	4.7	3.6
<b>Savings Rate by Income Decile (In percent)</b>	<b>(2012)</b>	
CAR	26.8	25.9
1 <sup>st</sup> Decile	(9.7)	(9.4)
2 <sup>nd</sup> Decile	4.0	3.8
3 <sup>rd</sup> Decile	10.9	11.0
4 <sup>th</sup> Decile	15.7	13.6
5 <sup>th</sup> Decile	13.2	18.5
6 <sup>th</sup> Decile	20.4	22.9
7 <sup>th</sup> Decile	22.7	23.0
8 <sup>th</sup> Decile	23.5	26.8
9 <sup>th</sup> Decile	29.0	30.4
10 <sup>th</sup> Decile	43.9	41.6
<b>Bank Deposit Liabilities (In million pesos)</b>	<b>50.884</b>	<b>83.579</b>
Universal & Commercial Banks	42.766	72.789
Thrift Banks	4.211	6.666
Rural & Cooperative Banks	3.907	4.124
<b>PEZA Exports (In US\$)</b>	<b>2,763,041,920.56</b>	<b>1,397,699,702.09</b>
Merchandise Exports	2,709,989,199.05	1,318,451,426.32
Service Exports	53,052,721.51	79,248,275.77
<b>Non-PEZA Exports (In million US\$)</b>	<b>10.66</b>	<b>3.39</b>

*Note: Savings rate is based on mean income and expenditure.*

**Sources:** BIR, PSA, BSP, PEZA, DTI



**Internal revenue collections in the region increased substantially.**

Internal revenues collected reached Php4.879 billion in 2015 from Php2.970 billion in 2011 with the implementation of measures to enhance voluntary tax compliance and efficient collection and assessment. Collections for all types of taxes improved substantially except for excise taxes. But the huge gap in collections between Baguio City and the rest of the provinces indicate the significant economic divide that needs to be addressed, apart from efforts towards improving revenue collections in the rest of the provinces.

**Inflation in the region was benign which benefitted consumers in the region.**

The regional inflation rate was at 1.4 percent in 2015, the lowest recorded since 2011. Stabilizing prices especially for food commodities must be ensured with the region frequented by typhoons and experiences seasonal monsoon rains resulting to supply disruptions and consequently higher prices of commodities. Inflation must be closely monitored that these are within government target to ensure welfare of consumers.

**Overall savings rate of families in the region was lower in 2015**

at 25.9 percent compared to 26.8 percent in 2012. Notable however is that middle and upper-middle income families (those belonging to the 5<sup>th</sup> to 9<sup>th</sup> decile) were able to increase savings indicating improved income levels. However, families belonging to lower income deciles (1<sup>st</sup>-4<sup>th</sup> decile) recorded lower or unchanged savings rates

indicating lower purchasing power despite improved incomes. Still, deposit liabilities of banking institutions in the region increased substantially indicating confidence in these financial intermediaries. Bank deposit liabilities amounted to Php83.579 billion in 2015 compared to Php50.884 billion in 2011 mostly coming from universal and commercial banks.

**Manufactured exports from firms located at the Baguio Economic Zone continue to dominate while remaining negligible for micro, small and medium enterprises (MSMEs).**

Total PEZA export revenues fluctuated due to subdued demand for the region's merchandise exports specifically electronics. Revenues from PEZA merchandise exports comprised mainly of electronics products declined by almost 16 percent annually between 2011 and 2015. However, the continuing strength of IT-BPO PEZA-registered companies kept export revenues afloat with services exports growing by an average 11 percent annually.

**Stiffer competition in the global market will be a challenge that local MSMEs will have to face**

as their export revenues continue to struggle declining by an average 25 percent annually. Apart from improving design and quality features, there is also a need to further diversify export products and improve access to foreign markets.

## Strategic Framework

A strategic trade and fiscal policy along with macroeconomic stability will support the societal goals of reducing inequality and increasing potential growth. Three outcomes are expected: (a) a responsible,

strategic and supportive fiscal sector; (b) a resilient and inclusive monetary and financial sector; and (c) a strategic external trade policy regime.

## Targets

Table 15.1 shows selected indicators and macroeconomic stability. end-of-Plan targets towards ensuring

*Table 15.1 Plan Targets for Ensuring Macroeconomic Stability, 2017-2022*

Indicator	Baseline		End-of-Plan Target
	Year	Value	
Sector Outcome 1: Responsible, strategic and supportive fiscal sector			
Gross Capital Formation (In billion pesos at 2000 prices)	2015	33.965	Increase
Internal Revenue Collection (In million pesos)	2015	4,879.163	Increase
Sector Outcome 2: Resilient and inclusive monetary and financial sectors			
Inflation rate (in percent)	2015	1.4	2.0-4.0
Sector Outcome 3: Strategic external trade policy regime			
PEZA exports (In million US\$)	2015	1,397.700	Increase
Non-PEZA exports (In million US\$)	2015	3.39	Increase

## Strategies

The following strategies will be pursued to attain a responsible, strategic and supportive fiscal sector; a resilient and inclusive monetary and financial sector; and strategic external trade:

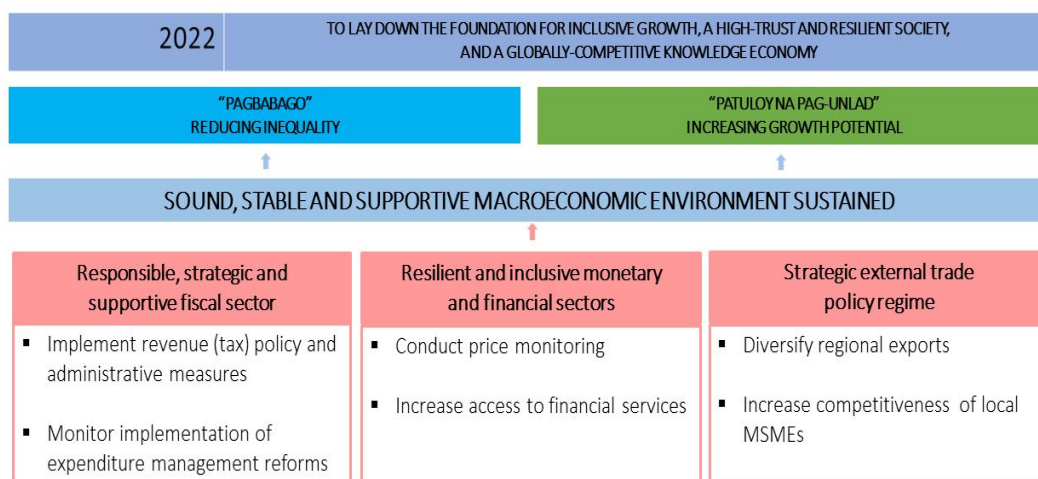
### Sector Outcome 1: Responsible, strategic and supportive fiscal sector

**Improve internal revenue collections through reforms in tax policy and administration.** This includes support to the tax policy reform shifting to a simpler, fairer and more efficient tax system characterized by lower rates and a broader base. Measures to enhance voluntary tax compliance and efficient collection and assessment will be aggressively implemented by the Bureau of Internal Revenue, along with simplification of processes and forms.

**Sustain gains in the implementation of public financial management reforms to promote efficient and effective use of public financial resources.** Focus shall be

on strengthening the link between planning, investment programming and budgeting and harmonizing national and local development priorities.

**Figure 15.1 Strategic Framework for Ensuring Sound Macroeconomic Policy, 2017-2022**



## Sector Outcome 2: Resilient and inclusive monetary and fiscal sectors

**Conduct price monitoring of goods and services** and ensure that regional inflation is within set government targets. This is also to ensure that the purchasing power of incomes is not drastically eroded and safeguard consumer rights and welfare and may also influence saving behavior of families.

**Increase the availability of financial services** to encourage savings not only through the banking system but also through other financial intermediaries (e.g., cooperatives).

## Sector Outcome 3: Strategic external trade policy regime

**Diversify regional exports** to reduce reliance on electronics manufactures. Focus shall be on increasing agricultural products processing for export (heirloom rice and coffee) and local MSME manufacturing (wood-based manufacturing, gifts, toys and souvenirs, and loom weaving).

**Increase the competitiveness of local MSMEs** to export their products by developing their capacities in production/processing/packaging, product promotion and marketing. Research and development shall continue to support local industrial development especially focusing on rural and indigenous enterprises.



# 16

Leveling the  
Playing Field  
through a National  
Competition Policy



# Leveling the Playing Field through a National Competition Policy

The National Competition Policy will lay the groundwork for proposing measures that will advance the competitiveness of our local governments and enterprises. It will allow for the growth of small players by identifying programs and policies that will reduce business costs and stamp out anti-competitive practices, and by introducing incentives that will encourage innovation among micro and small firms, and entice them to elevate the quality of their products and services. Overall, the National Competition Policy will lead all regions towards enhanced competitiveness, characterized by increased economic opportunities and consumer empowerment.

Competitiveness is an area in which the region still needs to improve in order to attract investments, enliven the regional economy, and reduce the dependence of local governments units (LGUs) on Internal Revenue Allotment (IRA). It entails improving the region's business climate by making available the necessary infrastructure and institutional support. It also involves lessening the cost of doing business by streamlining processes and reducing permits processing time and requirements. In this area, the region's LGUs, as manifested by their relatively high rankings in the Governance pillar of the Cities and Municipalities Competitiveness Index (CMCI), continue to slowly but steadily surge ahead of their counterparts. However, CAR's institutional and infrastructure support remains weak, mostly due to its difficult terrain.

Competitiveness is also determined by consistent and strict enforcement of fair

trade laws (FTLs). Compliance of firms to legal and statutory requirements will guarantee that products and services are of high quality, and that consumers have access to goods and services that are worth their money. In this respect, while firms in the region are performing well based on reported compliance rates, violations are still common particularly for standards and mandatory accreditation.

The role of consumers in CAR as partners in the enforcement of FTLs is not being maximized, based on the low number of active consumer organizations in the region. Low knowledge of consumer protection laws is observable, especially in the provinces. Lack of awareness of their entitlements as provided by law makes consumers in the region, particularly in rural areas, vulnerable to fraudulent and deceptive practices.

## Assessment and Challenges

### Need to enhance local government and industry competitiveness and to encourage investments

The IRA dependency rates of CAR provinces and Baguio City decreased since 2011, but were still mostly above 80 percent in 2015. Decreases in IRA dependency rates have been noted across all provinces and for Baguio City between

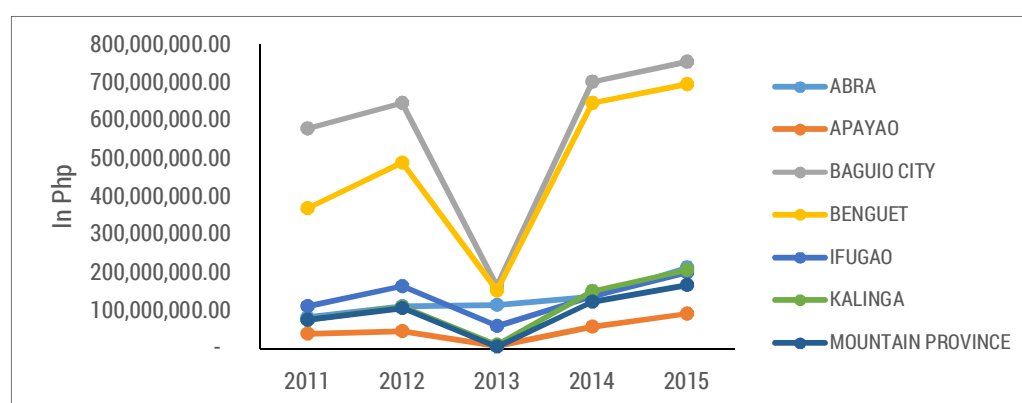
2011 and 2015. Lower IRA dependence rates corresponded with modest increases in locally sourced revenues for the same period, implying improved tax collection efficiency among CAR LGUs. But with the exception of Baguio City and Benguet, IRA dependence in the region is still relatively high at over 80 percent, with Apayao still reporting an IRA dependency rate of more than 90 percent in 2015.

**Table 16.1 Internal Revenue Allotment Dependency Rates by Province (In percent), CAR: 2011-2015**

PROVINCE/CITY	2011	2012	2013	2014	2015
Abra	94.86%	92.64%	92.94%	91.12%	87.71%
Apayao	96.21%	95.25%	99.32%	94.22%	91.72%
Baguio City	44.47%	38.92%	72.95%	41.46%	42.97%
Benguet	77.93%	71.21%	89.49%	65.16%	65.28%
Ifugao	89.82%	84.78%	94.37%	86.99%	83.19%
Kalinga	93.12%	89.65%	98.96%	86.31%	83.25%
Mountain Province	91.99%	88.29%	99.3%	86.83%	83.93%

Source: BLGF

**Figure 16.1 Locally Sourced Revenues by Province/City (In pesos), CAR: 2011-2015**



Source: BLGF

Rankings of most of the CAR LGUs in the CMCI remain low, and rankings for the Infrastructure pillar is low even for

LGUs with high overall rankings. Business Permits and Licensing Systems (BPLS) have been streamlined in all CAR

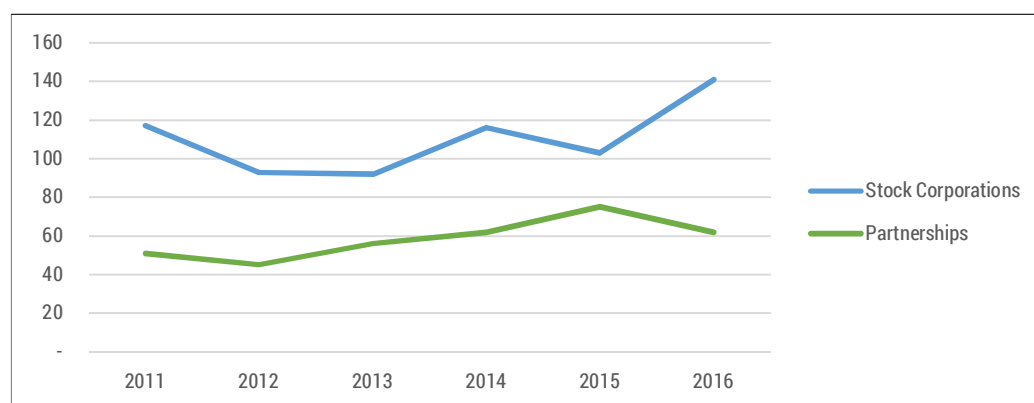


LGUs towards the end of 2015. Through BPLS streamlining, the number of steps and signatories, and business permits processing time, have been reduced in all cities and municipalities. However, the BPLS is only one of many parameters measured by the CMCI. CMCI data shows that the enrolled CAR LGUs, with the exception of Baguio City, La Trinidad and Tublay in Benguet, and Lamut and Lagawe in Ifugao, have garnered low rankings from 2013 to 2016, and that even the aforementioned high-ranking LGUs fared poorly in the infrastructure pillar of the index. In the case of Tublay, which ranked 20th overall out of 755 3rd to 6th class municipalities ranked in 2016, its ranking under infrastructure is 110th. Baguio City, which retained its position in the previous year in 2016 at 14th place, besting 20 out of 34 highly urbanized cities, ranked low for infrastructure at 27<sup>th</sup> place. Moreover, it was also noted that the overall rankings of most of the enrolled CAR LGUs were observed to have gone further

down as the number of enrollees nationwide increased. Like most of the other regions, CAR still needs to complete enrollment of its LGUs with the CMCI. In 2016, only 56 of its 77 cities and municipalities have been enrolled, and Abra has yet to be included among the enrolled provinces.

**CAR LGUs' relatively good performance in the Governance pillar is supported by increase in stock corporation and partnership registrations, which were partly attributed by efficient application processes.** The relatively good number of stock corporation registrations in recent years, particularly between 2015 and 2016, was attributed to facilitative registration procedures, aside from the availability of capital. This illustrates the role of registration processes and requirements in encouraging or deterring investments.

**Figure 16.2: Stock Corporation and Partnership Registrations (In pesos), CAR: 2011-2016**



Source: SEC

Notwithstanding its business friendly registration systems, improvement of CAR's support infrastructure such as roads and telecommunications, availability of

essential institutions and amenities like training, banking and accommodation establishments, and stable power and water supply, still need to be assured in order for CAR to be able to compete with other regions for large-scale investments, and even tourist arrivals.

### Low consumer awareness and involvement

**Although consumers are considered the catalyst of the industry and services sectors, consumer complaints are mostly filed by only residents from Baguio City and Benguet.** Many new products and services have emerged and branched out of old ones in recent years based on consumer wants and needs. Consumer demand is responsible for the immensely broadened variation in offerings available in the market today, and for the good performance of the region's services sector in recent years. However, notwithstanding the power they have over business, consumers frequently fall victim to dishonest entrepreneurs and substandard goods and services. This is in part because of low awareness of their rights under the law.

On average, around 88 percent of consumer complaints are filed in Baguio City and Benguet. Based on this highly skewed distribution of consumer complaints in CAR, consumers in the rest of the region seem to be unaware of or choose not to assert their rights. Meanwhile, on the part of retailers, one of the reasons that establishments, especially in far-flung communities, continue to stock products that have not been certified by the Bureau of Product Standards (BPS) is because these substandard but lower-priced goods enjoy high demand. This implies little awareness of, or indifference among consumers and retailers alike in CAR's rural areas, towards the dangers and risks of using uncertified products and the illegality of their sale and distribution.

**All provinces except Benguet only have one active Accredited Consumer Organization.** Still with the exception of Baguio City and Benguet, provinces in CAR only have one active accredited consumer organization (ACO) each. ACOs are partners of the DTI in advocating and enforcing laws that protect consumers. The small number of active ACOs in the region indicates minimal involvement of consumers and consumer groups in CAR in advancing and protecting consumer rights.

## Non – compliance of selected firms to fair trade laws and Consumer Act provisions

**Compliance of firms to fair trade laws is high. Violations in the region are mostly on standards and repair shop accreditation.** Compliance of firms in CAR to FTLs is relatively high, averaging at 97 percent. Violations were mostly on standards and repair shop accreditation. The distribution and sale of uncertified products by many firms in some instances could be traced back to suppliers, who dump these products along with those that passed BPS testing. To sustain high compliance, regular FTL monitoring is conducted in all provinces on a monthly basis, and special monitoring and enforcement activities involving the CONSUMERNET, a network of government agencies with consumer protection mandates, are scheduled in

October of every year as part of the annual Consumer Welfare Month celebration.

**Complaints filed in CAR are mostly on warranties, liability for products and services, and deceptive, unfair, and unconscionable practices.** The nature of complaints filed in CAR mostly fall under product and service warranties, liability for products and services, and deceptive, unfair and unconscionable sales acts and practices. Complaints resolution rate in the region is relatively high at around 96 percent on average, with both parties mostly settling their disputes during mediation. Complaints lodged in provinces outside of Benguet are mostly resolved on the day they were filed, whereas in Baguio City and Benguet, owing to the volume of cases lodged in the area, most of the complaints filed are closed within one to two weeks.

## Strategic Framework

The strategic framework is anchored on the goal of laying down “a solid foundation for more inclusive growth, a high trust society and a globally competitive knowledge economy”. With the Philippines’ integration into the ASEAN market, the region and its business firms face competition from both inside and outside the country. Given this present situation, enhancing LGU and enterprise

competitiveness has become a priority, and accordingly, CAR has stepped up efforts to improve its business climate and to eventually emerge as a prime investment destination. In connection, given the importance of consumer empowerment in developing a business friendly environment, the region’s consumers are not to be left behind in the region’s pursuit for competitiveness.

## Targets

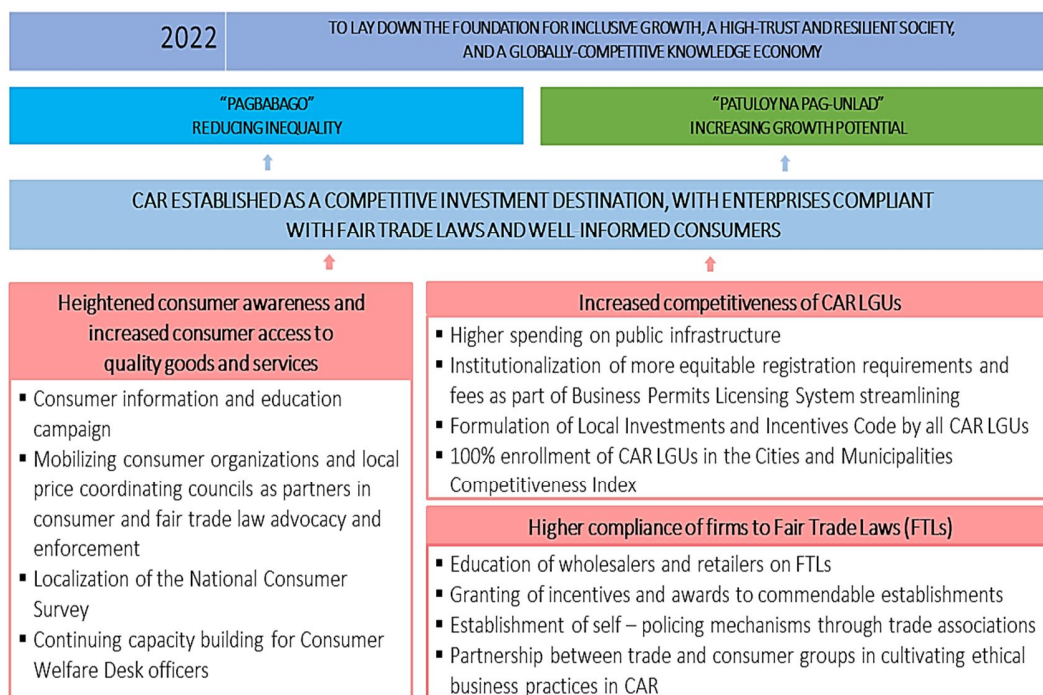
Local governments, business firms and consumers all play important roles in enhancing the region's competitiveness, as reflected in the following targets:

**Table 16.2 Plan Targets to Build the Framework for a National Competition Policy, 2017-2022**

INDICATORS	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	
<b>Subsector Outcome 1: Heightened Consumer Awareness and Increased Access to Quality Goods and Services</b>			
Number of accredited consumer organizations (ACOs)	2016	10	31
Number of members	2016	14,036	14,491
Complaints resolution rating (DTI)	2016	85%	90%
<b>Subsector Outcome 2: Increased Competitiveness of CAR LGUs</b>			
Enrollment of all CAR cities and municipalities in the CMCI	2016	56	77
<b>Subsector Outcome 3: Higher Compliance of Firms to Fair Trade Laws</b>			
Number of Bagwis awardee establishments	2016	176	To be determined
Gold		43	
Silver		55	
Bronze		78	
% of compliant firms against total monitored	2016	100%	100%

## Strategies

**Figure 16.3 Strategic Framework for Leveling the Playing Field through a National Competition Policy, 2017-2022**



### Sub-sector Outcome 1: Heightened consumer awareness and increased access of consumers to quality goods and services

Educating consumers on their rights under the law through trainings and seminars, production of information paraphernalia, and press releases, will not only empower consumers, but will also redound to the development of product and service providers. Increased consumer awareness will compel improved compliance of firms to legal and statutory requirements. The integration of lesson exemplars on consumer education into secondary education and alternative learning system (ALS) curricula, if continued, will develop

awareness of consumer rights among the youth. In relation, through the localization of the National Consumer Survey, knowledge of consumer laws and redress mechanisms in the region can be ascertained and assessed. With the consolidation of consumer complaints, customer feedback will also be readily available for establishments and implementing agencies who wish to improve their current practices. Tracking mechanisms need to be put in place, as well, to be able to identify and address causes of backlogs and improve turnaround time for complaints resolution.

Mandatory compliance to the provision of priority lanes and discounts for senior

citizens and persons with disabilities, among others, will be more effectively enforced with more frequent and persistent monitoring and enforcement by the CONSUMERNET, the LGUs, the Local Price Coordinating Councils (LPCCs), and the ACOs. LGUs, LPCCs, and ACOs, may be mobilized as partners during consumer law advocacy activities. LPCCs should meet and convene regularly to discuss price and supply issues. ACOs in particular may be involved in disaster risk reduction (DRR) and climate change adaptation (CCA) efforts in order for them to appreciate their role in reducing the region's vulnerability to calamities and disaster. DRR-CCA plans and programs may also be harmonized with LPCC initiatives to unify efforts further.

Continuing capacity building for consumer welfare desk (CWD) officers in both DTI offices and business establishments will guarantee that CWD officers in the region remain competent and well-informed, and will improve their efficiency in resolving consumer complaints. Increased awareness of existing laws among CWD officers in establishments will also result in higher FTL compliance among business firms.

## Sub-sector Outcome 2: Improved competitiveness of CAR LGUs

Focus on infrastructure scores of the different CAR LGUs in the CMCI should be given precedence, as it was observed that this was the pillar in which most, if not all of CAR's provinces, cities and municipalities fare poorly. The region's landlocked and mountainous terrain limits its transportation and logistics options, and makes it less attractive as an

investment destination compared to regions that have seaports, airports, and more navigable roads. This unique constraint gives rise to the need for CAR's local governments to endeavor to improve their incentive structures and infrastructure support. Increased spending on public infrastructure, particularly roads, like the approved BLISTT Outer Circumferential Ring that passes through Baguio City and the five adjacent municipalities, and fiber optics for telecommunications, will increase investment activity in the region, and invigorate related sectors like construction and communications. Opening the Baguio City airport for commercial flights will also facilitate travel to and from the region.

For their part, CAR's LGUs, with their 100 percent region-wide compliance to BPLS streamlining, have initiated measures that cut down the cost of doing business in their respective jurisdictions. Sustained improvements in LGU processes will also facilitate tax and fee collections, and consequently bring about higher locally sourced revenues and lessened IRA dependence. Mobile business name registration, which had been implemented by the DTI through the years, also contributes largely to ease of doing business, especially for applicants from far-flung areas. However, more equitable registration requirements and fees still need to be institutionalized to keep small businesses in the region afloat, and to facilitate their growth.

Low overall CAR LGU rankings and less than 100 percent LGU enrollment in the CMCI require stronger advocacy programs. Also, monitoring of improvements that resulted to higher

CMCI rankings need to be intensified. The creation of the Regional Competitiveness Committee (RCC) under the Regional Development Council (RDC) consolidated the initiatives of its member agencies and organizations in advocating the CMCI, facilitating LGU enrollment with the index, improving LGU rankings, and providing technical assistance to CAR LGUs. Considering its critical role in advancing LGU competitiveness, the RCC members need to undergo continual knowledge upgrading and capability building.

Moreover, all LGUs need to come up with their Local Investments and Incentives Code (LIIC) that will institutionalize requirements, priority areas of investment, and incentive structures for potential investors. In accordance with PEZA's current thrust, ecozone development in all cities and provinces will be advanced if feasible. However, priority will be given to ecozones that will undertake production for domestic markets, as these will be more beneficial to MSMEs, who make up more than 90 percent of firms in CAR. Ecozones for domestic markets will mitigate the advantages of export firms located in special economic zones over other firms that do not enjoy the same incentives. The revival of the DTI-PEZA proposal through

which this measure was conceptualized will be reviewed.

### Sub-sector Outcome 3: Higher compliance of firms to Fair Trade Laws

CAR's enterprises will also benefit from information and education, especially on uncertified products, and on the unscrupulous practices of suppliers and distributors who prey on local businessmen especially in the region's remote towns. While consistent monitoring will also produce results, self-policing mechanisms will be more effective in minimizing FTL violations. These mechanisms may be developed through organized trade associations. Active trade organizations will also serve as channels through which the members' concerns could be communicated to government, and through which firms can partner with consumer groups in enhancing the region's business climate and cultivating ethical business practices in CAR. Firms will also be encouraged to improve their business practices through incentives and awards, like the Bagwis Awards, which the DTI confers to establishments with commendable quality control and customer care.

## Legislative Agenda

*Table 16. 3 Legislative Agenda for Leveling the Playing Field through a National Competition Policy*

LEGISLATIVE AGENDA	RATIONALE
Pass the Ease of Doing Business Act	The proposed law will lower the cost of doing business and will help enhance the regions standing as preferred investment destinations.
Review of RA 8792 (E – Commerce Law)	It might be necessary to enhance the provisions on consumer protection against fraudulent practices in online transactions.
Amend RA 7394 (Consumer Act)	The Consumer Act may have to be updated to harmonize its provisions with relevant ones in RA 8792.
Pass HB 4649 (An Act Establishing the Autonomous Region of the Cordillera)	A larger portion of the national budget will be allocated to the region once the HB is enacted. Additional resources would mean accelerated infrastructure development and increased efficiency in the delivery of public services.



PART VI

# **FOUNDATIONS FOR SUSTAINABLE DEVELOPMENT**





# 17 Attaining Just and Lasting Peace



# Attaining Just and Lasting Peace

Economic growth cannot be sufficiently buoyant, sustained, nor inclusive without durable and enduring peace. Communities that experience armed conflict are frequently among the poorest in the country. Families that belong to these communities always need to be prepared for evacuation at the moment's notice wherever fighting erupts. As the same time, school children in these areas are wither forced to suspend or quit schooling, which leave their learning stunted and options for a brighter future limited. In response, the government has been relentless in the pursuit of peace, through intensified development and peace-building initiatives in conflict-affected areas (CAA) and conflict-vulnerable areas (CVA). Over the years, while much has been achieved by the government, so much still remains to be done.

## Assessment and Challenges

**The Cordillera Region continues to face threat from the New People's Army (NPA) rebels operating in far flung barangays in the region.** The violent activities in these areas have stalled development efforts intended to spur socio-economic growth in local villages, spoiling potential investments on energy, mineral and tourism industries. Even initiatives on infrastructure development has been derailed by the threat from these insurgents. In response, the government launched counter-insurgency program in an effort to address insurgency and prepared them for an efficient implementation of socio-economic projects that are responsive to the development needs of these areas. The AFP exerted effort to free local villages from threats posed by insurgents with the deployment of Bayanihan Teams by

carrying out community outreach activities in conflict-stricken areas in the Cordillera. The government also sustained the Pantawid Pamilyang Pilipino Program (4Ps) to bring relief to poor households in the region and boost social development.

**There is a need to collate data on crimes committed in conflict-affected areas (CAA) and conflict-vulnerable areas (CVA).** Rampant crimes in CAA areas, and the rising number of violations of human rights (HR) and international humanitarian rights law (IHRL) in conflict situations are still unaccounted for. Existence of said crimes are met with denial from both camps. Thus no statistics can be culled out, but some of the crimes prevailing in these areas are listed in Table 17.1 below.

**Table 17.1 Crimes Committed in Conflict-Affected Areas and Conflict Vulnerable Areas**

Crimes charged against NPAs	Crimes charged against uniformed men
Forced taxation	Murder
Extortion	Theft
Murder	Physical Injuries
Arson	Rape
Illegal Possession of Firearms	

Source: Baguio City RTC records

There are apparent disruptions to community life of families/households due to armed conflict in CAA and CVA where majority are living below poverty line. Efforts to support marginalized communities that are left behind by the development process, and where conflict exacerbates existing poverty and inequality are being done by the government. While the rest of the country develops, CAAs and CVAs are left behind due to the endless cycles of violent conflict and poor governance, especially the poor delivery of basic services in far-flung barangays. Many families/households in CAA and CVA are living below poverty line, as they lack access to basic services. Lack of alternative livelihood draws the people to armed struggle, even drawing people to plant marijuana.

The implementation of the Closure Agreement between the Government of the Philippines and the Cordillera Bodong Administration-Cordillera People's Liberation Army (CBA-CPLA) needs to be assessed. In 2011, the government panel (GPH) and the CBA-

CPLA signed a Memorandum of Agreement (MOA) "Towards the CPLA's Final Disposition of Arms and Forces and its Transformation into a Potent Socio-economic Unarmed Force." This resulted in the turnover of about 76 percent of the total inventoried firearms and detonation of all inventoried explosives. Registered under the Securities and Exchange Commission (SEC), the CPLA transformed into the Cordillera Forum for Peace and Development, Inc. and became a member of the Cordillera Regional Peace and Order Council (RPOC). However, remaining activities particularly in the implementation of livelihood projects and the sustainability of interventions leading to socio-economic transformation of the CBA-CPLA still need to be completed. Thus, there is a need to conduct an assessment of the status of implementation of the projects under the MOA.

**The implementation of the Payapa at Masaganang Pamayanan (PAMANA) Program needs to be strengthened.** The government's peace and development convergence program extended development interventions to communities in isolated and hard-to-reach conflict-affected and conflict-vulnerable areas. Road infrastructures enhanced communities' access to facilities and improved security conditions. PAMANA is implemented in areas affected by

conflicts, communities covered by existing peace agreements, and in areas with high incidence of drug trafficking and trading. 50 PAMANA projects were completed in Abra, Apayao, Benguet and Kalinga, while 31 more PAMANA projects are on its way to completion in the provinces of Ifugao and Mountain Province. Beneficiaries include 885 individuals covered with health insurance, 745 families were given shelters, while 187 students enjoyed study grants (Table 17.2).

*Table 17.2 Beneficiaries of PAMANA in the Cordillera Administrative Region*

Type of Project/Assistance	No. of Beneficiaries	Units
Health insurance	885	individuals
Shelters	745	families
Study grants	187	students

Source: DSWD-CAR

Among the positive outcomes of PAMANA were: (1) improved accessibility and socioeconomic and security conditions resulted in lower transaction costs, which has significantly brought down prices; (2) made profit margins bigger; and (3) spurred economic activities in the communities. Responding to

emergencies and other security incidents also became easier for our security forces. However, PAMANA needs to improve on the human security conditions through the delivery of basic socio-economic services in a timely, conflict-sensitive and peace-promoting manner.

## Strategic Framework

### Targets

Core outcome and output indicators that will be monitored to ensure the attainment of just and lasting peace, such as the decrease in poverty incidence and community disruptions, implementation

of peace agreements and integration of the peace-building process in the curriculum, and achievement of regional autonomy, are shown in Table 17.3.

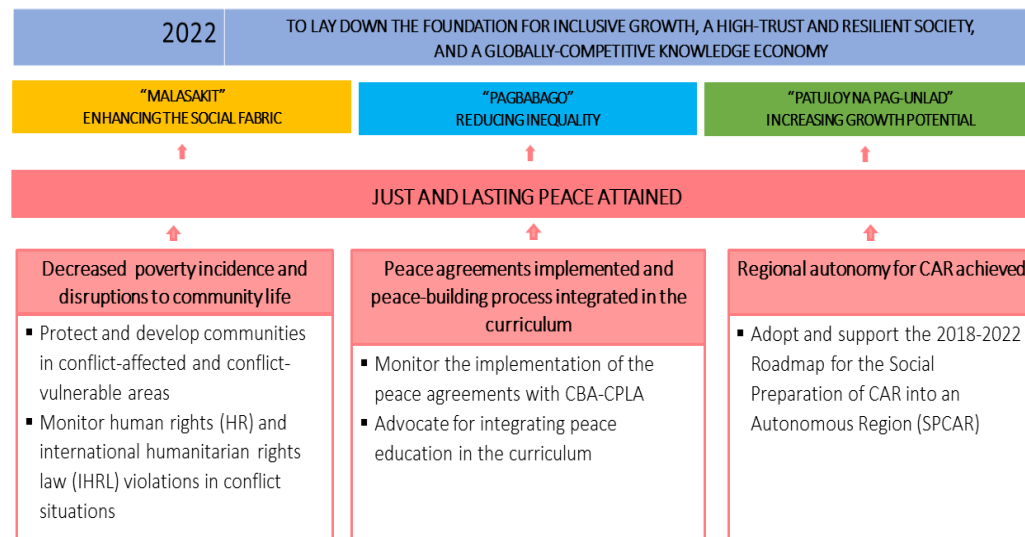
*Table 17.3 Plan Targets to Ensure Just and Lasting Peace, 2017-2022*

INDICATOR	BASELINE		END-OF-PLAN TARGET
	YEAR	VALUE	
Sub-sector Outcome 1: Decreased poverty incidence and disruption to communities			
1. The poverty incidence of households in Conflict-Affected Areas (CAA) and Conflict Vulnerable Areas (CVA) are monitored	2016	Unknown	decreasing
2. The access to social services of households in CAA and CVA are monitored	2016	Unknown	increasing
3. Exact list of CVA and CAA is determined by OPAPP, AFP and the PNP	2016	Unknown	final list determined
4. Violations of human rights (HR) and international humanitarian rights law (IHRL) in conflict situations are monitored	2016	Unknown	decreasing
Sub-sector Outcome 2: Peace agreements implemented and peace-building process integrated in the curriculum			
5. The implementation of the peace agreements with the CBA-CPLA is assessed	2016	Unknown	gaps identified and recommendations to move forward determined
6. Advocacies for the integration of the peace-building process in the curriculum	2016	None	peace education in both formal and non-formal setting mainstreamed
Sub-sector Outcome 3: Regional autonomy for CAR achieved			
7. Adopt and support the Roadmap for Achieving Cordillera Autonomy towards Federalism	2016		regional autonomy achieved



## Strategies

Figure 17. 1 Strategic Framework for Attaining Just and Lasting Peace



### Sub-Sector Outcome 1: Decreased poverty incidence and disruption to communities

**Protect and develop communities in conflict-affected and conflict-vulnerable areas.** The Office of the Presidential Adviser on the Peace Process (OPAPP) shall monitor the poverty incidence and access to social services of households in CAA and CVA on: (a) potable water; (b) electricity; (c) health services; and (d) education services; access to livelihood and employment opportunities; use of local conflict resolution mechanisms such as the Kalinga ‘*bodong*’ system and Bontoc ‘*pechen*’. OPAPP and the Armed Forces of the Philippines (AFP) should determine the exact list of barangays and municipalities categorized as CAA and CVA.

**Monitor human rights and international humanitarian rights law violations in conflict situations.** Aside from the campaign of the uniformed men against drugs and criminality, the aggressive campaigns in the countryside has affected some civilians and non-combatants. The Commission on Human Rights (CHR) seeks the proper labelling of crimes committed in CAA and CVA, whether they are violations of the HR and/or IHRL or mere criminal acts punishable under the Revised Penal Code (RPC).

### Sub-Sector Outcome 2: Peace agreements implemented and peace-building process integrated in the curriculum

**Asses the implementation of the peace agreements with the CBA-CPLA.** The OPPAP shall apprise the Regional Development Council (RDC) on the implementation of socio-economic

transformation program for CBA-CPLA, especially on the accomplishments of the different components of the socio-economic package. It shall provide the challenges and lessons learned, to serve as input to the next steps for the continuing capacity-building interventions for CBA-CPLA.

**Advocate for the integration of the peace-building process in the curriculum.** The RDC shall push for the popularization of the peace process among the youth and the academe. It shall make initial efforts in approaching the Department of Education (DepEd) and the Commission on Higher Education (CHED) for the integration of the peace process in the curriculum. The mainstreaming of peace education and the promotion of a culture of peace and non-violence will be pursued in both formal and non-formal settings. In formal institutions, the Total-School Approach to peace education will be mainstreamed to promote peace and conflict-sensitivity, not only introducing its principles in the

school curriculum, but also applying the principles within the various aspects of academic community life.

**Sub-Sector Outcome 3: Regional autonomy for CAR achieved**

**Adopt and support the Roadmap for Achieving Cordillera Autonomy towards Federalism.** The pursuit of regional autonomy should be continued through IEC, Alliance and Program Management, and Capacity-Building, in accordance with the RDC’s Roadmap for Achieving Cordillera Autonomy towards Federalism. House Bill 5343, an act establishing the Autonomous Region of the Cordillera provides that the region shall co-manage the peace-keeping programs and initiatives, and closely coordinate with the PNP and the AFP. It shall strengthen indigenous systems to promote peace and socio-economic development in the region. It shall provide for a system of incorporating indigenous practices in conflict resolution.

# Legislative Agenda

*Table 17. 4 Legislative Agenda for Attaining Just and Lasting Peace*

Legislative Agenda	Justification
Cordillera Regional Autonomy (HB 5343)	Address the region’s uniqueness in terms of its culture, topography, vulnerability to disasters as well as scarcity of infrastructure facilities and services to ensure progress in the region.

# 18

Ensuring Security,  
Public Order,  
and Safety



## Chapter 18

# Ensuring Security, Public Order, and Safety

National security and public order are essential elements in building the foundation for inclusive growth with a high trust and resilient society, and a globally competitive economy. When everyone in the country feels safe when they are able to go about their economic and social pursuit, as long as they do not violate the rights of others. The 0+10 point Socio-Economic Agenda of the Duterte Administration listed security, public order and safety as its very first agenda.

Public order and safety is a necessary condition for economic activities to flourish and in promoting social order amid disparities on political ideologies and cultural beliefs. Likewise, it promotes economic growth through the influx of local and foreign investments as well as tourism that will consequently generate employment and investment opportunities. This rests on the rationale that economic development cannot thrive amid escalating criminality and political instability. Hence, the significance of the role of the Philippine National Police (PNP) in attaining the common vision of the government bureaucracy as steward by the President reposed on its capability to address criminality.

Accordingly, PNP services rendered to the public are elucidated in two phases: proactive phase and reactive phase. The proactive phase crops up before the commission of crimes known as the preventive measures which include intelligence activities, police visibility efforts or patrolling, and information advocacy campaigns. The reactive phase on the other hand, occurs after the commission of crimes. This phase includes crime suppression measures such as arrest, seizure, raids, neutralization, search and rescue, among others.

## Assessment and Challenges

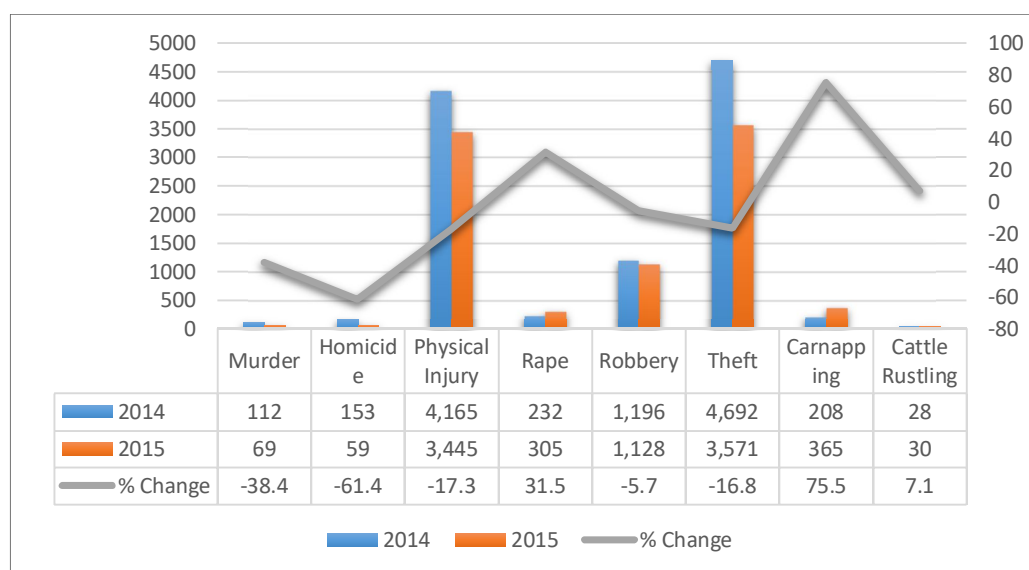
The Philippine Development Plan (PDP) provides for the government's pursuit for a rapid and sustained economic growth and development through a strategic development policy framework founded on peace and security. This recognizes the relationship of peace and security and development. The Police Regional Office

of the Cordillera (PRO-COR) garnered 100 percent rating based on their functionality report last year, then for being among the first Police Regional Office to comply with the requirement of the Patrol Plan 2030 to the lowest units. Significant gains in anti-criminality was achieved with the implementation of Oplan Lambat-Sibat

and the intensification of patrol operations across the nation. These are measured in the Index Crime Volume (Figure 18.1) and disaggregated by political subdivision (Table 18.1). As index crime is the measure used, the PRO-COR focus for 2014-2015 is the average monthly index crime rate (AMICR), as shown in Table 18.2. The five-year AMCR is then measured vis-à-vis the Crime Solution Efficiency (CSE) (Figure 18.2)

**Index crime volume by type and by province, city and municipality.** In order to compare statistical information on a national basis, it was necessary to come up with a common definition for crime comparison, and to create a standardized definition of crime classification. Index crimes are the eight crimes combined to produce the annual crime statistics, namely: murder, homicide, physical injury, rape, robbery, theft, carnapping and cattle rustling. Index Crimes in Baguio City declined from 10,786 in 2014 to 9,167 in 2015 or a 10.11 percent decrease (Figure 18.1).

**Figure 18.1 Index Crimes Volume, CAR: 2014 and 2015**



**Source: PROCOR**

Theft is still the most prevalent crime in the region (with a volume of 3,571), followed by physical injury (3,445) and robbery (1,128). PRO-COR registered a 25.5 percent reduction of index crime in 2015 as compared to the previous year, higher than the national average of 11.21 percent. Murder decreased by 38.4 percent, homicide by 61.4 percent, physical injury

by 17.3 percent, robbery by 5.7 percent and theft by 16.8 percent.

While rape incidence registered second lowest in volume, next only to cattle rustling, there is a notable increase in rape cases from 232 in 2014 to 305 in 2015 (31.5 percent in the past two years). An increase in the number of rape cases may be

attributed to the improved public trust in the administration of Women and Children's Desks (WCD) in the PNP. Some cases reported in 2015 may have occurred in previous years, but reported only when the citizens found some results in the way PNP's WCD handled the cases. Carnapping is almost alarming at 75.5 percent, as some of the carnapped cars are brought to a shop in Baguio City, with parts are chopped-off and sold separately.

Said controversial case was already solved and filed in court. Stolen motorcycles also fall under the category of carnapping. Cases cited were: (1) people who acquired motorcycle by installment and have defaulted in their payments have opted to keep the items, without complying with their obligations. The seller usually report the said item as stolen; (2) others borrow the motorcycle but refuse to return them, thus reported as stolen.

**Table 18.1 Index Crime Volume by Province/City, CAR: 2014 and 2015**

Political Subdivision	2014	2015	% Change
Abra	773	547	-29.2 %
Apayao	184	144	-21.7 %
Baguio City	5,066	4,806	-5.1 %
Benguet	2,744	2,156	-21.4 %
Ifugao	<b>326</b>	<b>427</b>	<b>30.9 %</b>
Kalinga	1,096	642	-41.4 %
Mountain Province	579	455	-21.4 %
<b>TOTAL</b>	<b>10,723</b>	<b>9,167</b>	<b>-15.6 %</b>

Source: PROCOR, PSA (2016 Regional Social and Economic Trend (RSET))

Index crimes volume have generally decreased in the different provinces and city in CAR, but it increased in Ifugao by almost 31 percent in the past two years. Baguio City still has the highest crime volume, amounting to around 50 percent of crimes in the region and registered the smallest decrease in the volume of index crime. Both Benguet and Mountain Province have index crime reduction rates of 21.4 percent. Kalinga has a 41.4 percent reduction in index crime, the highest in the region.

**Average Monthly Index Crime Rate (AMICR).** AMICR is the **average index** crime volume per 100,000 population. On the average, the AMICR of the Cordillera Region is 40.35 percent. AMICR increased from 24.07 percent in 2011 to 42.99 percent in 2015, based on the combined data of the Philippine Statistics Authority (PSA) and the PRO-COR. The annual increase in the population, plus the immigration of students and tourists have contributed significantly to the increase.

**Table 18.2 Average Monthly Index Crime Rate (AMICR), CAR: 2011-2015**

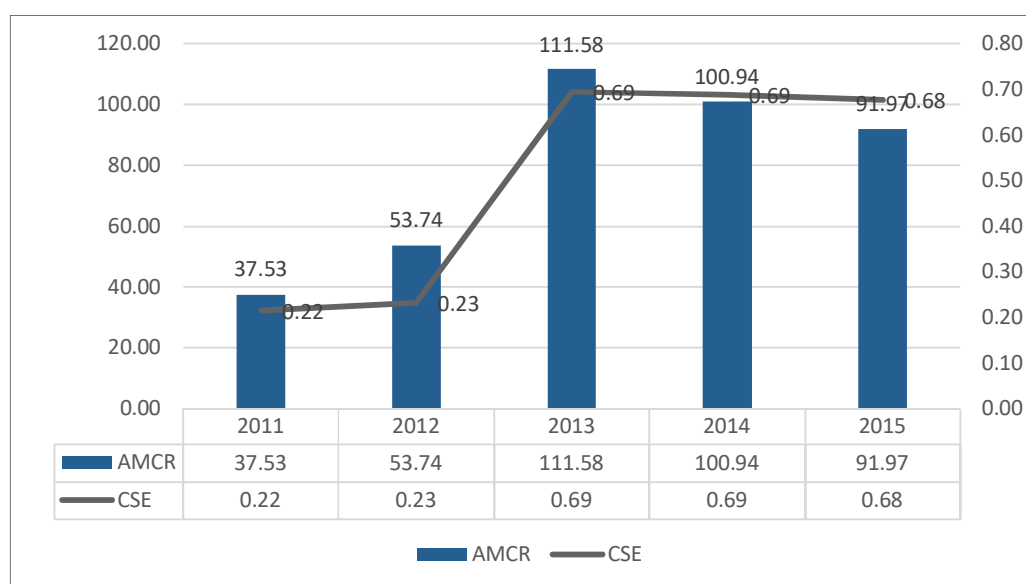
Year	Index Crime Volume	Population	Ave. Monthly Index Crime Rate (AMICR)
2011	4,894	1,694,400	24.07
2012	6,667	1,678,892	33.09
2013	10,095	1,710,792	49.17
2014	10,768	1,710,792	52.45
2015	9,167	1,777,055	42.99

Source: PROCOR, PSA (2016 Regional Social and Economic Trend (RSET))

**The Average Monthly Crime Rate (AMCR) as compared to the Crime Solution Efficiency (CSE).** CSE is the percentage of solved cases out of the total number of reported crime incidents handled by police units/offices for a given period of time. It is general measure of PNP's investigative capability or efficiency. In the figure below, with the AMCR and

CSE taken together, AMCR was lowest in 2011 at 37.53, and highest in 2013 at 111.58. It can be noted that even if the AMCR was reduced by 10.64 in 2014, the CSE remained at 69 percent. The following year, while the AMCR further plummeted to 91.97, there was a further decreased in crime solution efficiency by 1 percent.

**Figure 18.2 AMCR vs. CSE, CAR: 2011 and 2015**



Source: PROCOR Assessment Report, Nov. 2016

**Police visibility can aid in crime prevention and suppression, however, there is lack of personnel in urban areas like Baguio City.** Crimes can be prevented when policemen are more visible in the streets and in the

communities. The public reports the occurrence of crime that are about to be committed, but police response is oftentimes delayed.

On the other hand, the PNP's strategy is



the use of closed-circuit televisions (CCTV) in major thoroughfares and in overpasses in the Central Business District (CBD). During the peak crime hours, crime prevention and resolution lies on the quick response of the uniformed men on the streets. However, the PNP finds it difficult to maintain adequate police to

population ratio, given that the daytime population of the city is doubled. During holidays, PRO-COR augments the manpower complement of Baguio City Police Office (BCPO), but this is to the detriment of the other provinces, where police work is even made difficult by the fact that the terrain of the areas are steep.

**Table 18.3 Number of Drug-Affected Barangays Cleared, CAR: 2011- 2015**

Particular	2011	2012	2013	2014	2015
<b>Drug-Affected Barangays cleared</b>	14	4	7	2	19

Source: PDEA Report on achievements based on the RDP 2011-2016 Strategic Development Framework, Nov. 2016

**There is low number of barangays cleared of drug-affectation in the region.**

Based on the monitoring of Philippine Drug Enforcement Agency (PDEA) of drug-affected barangays, as the figures indicated in Table 18.3 shows, the number of barangays that have met or complied with the requirements of barangay drug-clearing program was highest (19) in 2015 but lowest (2) in 2014. However, PDEA still considers drug-clearing a challenge,

since complete treatment cycle spans two years. Since a drug-user committed to a rehabilitation center needs to undergo treatment (6 months) and after-care therapy (18 months), a barangay cannot be declared drug-free until that constituent of the said barangay is still listed. Add to this the high cost of medical assessment of the level/severity of addiction is high, and there are no public rehabilitation facilities.

**Table 18.4 Status of Drug Surrenderers, CAR: 2016**

Province/City	No. of Surrenderers	Documented/ Processed	Profiled by LSWDO/PNP	Assessed by Medical Personnel	Enrolled under Community Rehabilitation	Enrolled under Rehabilitation Center
Abra	1,847	1,845	538	897	371	1
Apayao	1,125	1,125	488	511	162	0
Baguio City	2,356	407	407	305	211	0
Benguet	2,315	2,202	304	921	99	22
Ifugao	571	571	399	188	188	0
Kalinga	1,736	1,732	1,732	235	103	3
Mountain Province	511	505	20	319	58	0
<b>TOTAL</b>	<b>10,461</b>	<b>8,387</b>	<b>3,888</b>	<b>3,376</b>	<b>1,192</b>	<b>26</b>

Source: DILG, Tracking of Status of Surrenderers Per Provinces

**There is high number of surrenderers but the region lacks rehabilitation centers.**

Baguio City registered the highest number of surrenderers, followed by Benguet. These are the areas confirmed by the PNP and PDEA as being still affected by drugs, while Ifugao and Mountain Province are

the two lowest in terms of surrenderers. Since there are no rehabilitation centers in the region, those coming from Benguet, Kalinga and Abra are mostly enrolled in centers outside the region.

**Table 18.5 Fire Incidence and Value of Damages per Province, CAR: 2011 and 2015**

Province/City	2011		2015	
	Incidence	Damages (In pesos)	Incidence	Damages (In pesos)
<b>Abra</b>	34	16,556,550	67	6,049,500
<b>Apayao</b>	12	4,055,000	18	3,468,500
<b>Benguet (inc. Baguio)</b>	236	37,899,900	164	23,864,700
<b>Ifugao</b>	20	3,542,290	25	12,809,000
<b>Kalinga</b>	27	1,603,600	37	6,402,950
<b>Mountain Province</b>	34	4,480,300	78	7,970,850
<b>TOTAL</b>	263	68,137,640	389	60,565,500

Source: RSET 2016

**Coordination with the private sector and civil society organizations to speed up response to fire incidence, emergency medical situations, rescue calls and bomb threats were made in the region.**

Coordinated efforts among the government, the business sector and the civil society organizations, such as BB-PCAG (Baguio-Benguet Public Civic Action Group) improved the disaster preparedness status of the region.

**Improvement of LGU support to the institutionalization of community-based disaster risk reduction and management (DRRM) were recorded.**

The Department of Interior and Local Government (DILG) reported a 100 percent LGU compliance on the updating of Municipal Disaster Risk Reduction and Management Plans

(MDRRMP). However, most of the DRR Municipal Officer (DRRMO) plantilla positions are not filled up. On the other hand, the DILG being the Chairman of the Preparedness Cluster of the Cordillera Regional Disaster Risk Reduction and Management Committee (CDRRMC) has successfully implemented the Project Listo, which aims to improve the prevailing capacities of families and communities to adapt to climate change and disaster risk reduction.

**Table 18.6 Typhoon Damages (In million pesos), CAR: 2011-2014**

DATES	NAME	AFFECTED AREAS				CASUALTIES			DAMAGED TO PROPERTIES (Php MILLION)		
		PROV	MUN	CITY	BGY	DEAD	INJURED	MISSING	AGRI	INFRA	TOTAL
MAY 24 to 28, 2011	TY CHEDENG	2	0	1	0	1	0	0	0	0.492	0.492
JUNE 21 to 25, 2011	TS FALCON	2	0	0	0	2	0	0	0	0	0
JULY 26 to 29, 2011	TS JUANING	4	4	1	24	5	0	0	15.55	0.13	15.68
AUG 21 to 29, 2011	TY MINA	5	48	1	355	16	17	2	449	252	701
SEPT 24 to 29, 2011	TY PEDRING	6	49	2	256	5	22	2	857.274	492.136	1349.41
SEPT 29 to OCT 4, 2011	TY QUIEL	6	14	1	39	1	6	0			
<b>TOTAL</b>	<b>6</b>	<b>25</b>	<b>115</b>	<b>6</b>	<b>674</b>	<b>30</b>	<b>45</b>	<b>4</b>	<b>1,321.53</b>	<b>744.928</b>	<b>2066.455</b>
July 7 to 9, 2014	TY FLORITA	6	75	1		0	0		0	0	0
July 13 to 18, 2014	TS GLENDA	6	75	1		0	0	0	0.81	45.57	46.37
July 21 to 23, 2014	TY HENRY	6	75	1		0	0	0	0	0	0
Sept 12 to 17, 2014	TY LUIS	6	75	1	79	0	5	2	17.92	49.14	49.14
Sept. 19 to 23, 2014	TY MARIO	6	75	1		0			482.40	333.50	815.90
<b>TOTAL</b>		<b>30</b>	<b>375</b>	<b>5</b>		<b>0</b>			<b>501.13</b>	<b>428.21</b>	<b>911.42</b>

Source: OCD

## Strategic Framework

### Targets

Core outcome and output indicators that will be monitored to ensure security, public order and safety, such that public safety, including fire safety and emergency management system (EMS) is ensured and

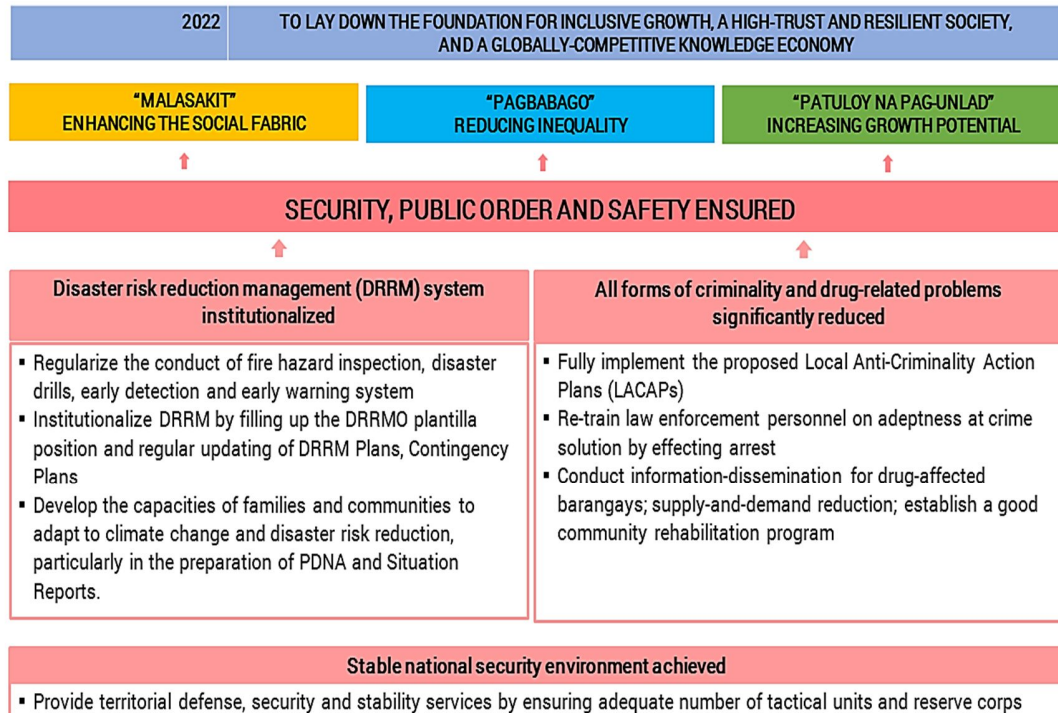
DRRM is institutionalized, reduction of all forms of criminality and drug-related problems and stable national security environment are established, are shown in Table 18.7.

**Table 18.7 Plan Targets to Ensure Security, Public Order and Safety, 2017-2022**

INDICATOR	BASELINE		END OF PLAN TARGET
	YEAR	VALUE	
Sub-sector Outcome 1: All forms of criminality and drug-related problems significantly reduced			
1. The proposed Local Anti-Criminality Action Plans (LACAPs) are fully implemented	2016	Unknown	increasing
2. Law enforcement personnel are re-trained on adeptness at crime solution by effecting arrest	2016	Unknown	increasing
3. Information-dissemination for drug-affected barangays conducted	2016	Unknown	increasing
4. Marijuana supply-and-demand significantly reduced	2016	Unknown	decreasing
Sub-sector Outcome 2: Public safety, including fire safety and emergency management system (EMS) ensured and disaster risk reduction and management institutionalized			
5. Regular conduct of fire hazard inspection, disaster drills, early detection and warning by the security sector agencies ensured	2016	Unknown	increasing
6. DRRM institutionalized by filling up the DRRMO plantilla position and regular updating of DRRM Plans, Contingency Plans	2016	Unknown	increasing
Sub-sector Outcome 3: Stable national security environment achieved			
7. Territorial defense, security and stability services ensured by providing adequate number of tactical units and reserve corps	2016	Unknown	increasing

## Strategies

*Figure 18.3 Strategic Framework for Ensuring Security, Public Order and Safety*



### Sub-sector Outcome 1: All forms of criminality and drug-related problems significantly reduced

**Fully implement the proposed Local Anti-Criminality Action Plans (LACAPs).** Each municipality prepares its own LACAP, and the LGUs shall pursue its full implementation in order to sustain anti-crime and crime prevention programs. The PNP shall strengthen coordination with Barangay Officials to overcome the issue of delayed response to crimes committed in difficult terrains. It shall activate and enhance the capabilities of Barangay Tanods and other force multipliers. The PNP shall also harness police-community relations (PCR) to

mobilize the public in case of crime and emergency.

**Re-train law enforcement personnel on adeptness at crime solution by effecting arrest.** The National Police Commission (NAPOLCOM) shall conduct periodic skills assessment of policemen and develop Human Resource Development (HRD) plans to capacitate investigators through refresher courses. Reporting and monitoring of crimes should also be enhanced. PRO-COR shall also strengthen partnership with other law enforcement agencies (i.e., National Bureau of Investigation) to augment the low police to population ratio.

**The PDEA shall conduct information-dissemination for drug-affected barangays and continue monitoring the status of drug-cleared barangays.** The management of drug surrenderers will be through strengthening the Barangay Anti-Drug Addiction Committee (BADAC). The provision of drug rehabilitation infrastructure facilities should also be given importance, considering the increasing number of surrenderers.

**The joint PNP-PDEA team shall endeavour to reduce the supply-and-demand of marijuana.** The joint force shall conduct surveillance and arrest of marijuana planters and the suppliers of other drugs and paraphernalia. The PNP-PDEA team shall focus on demobilizing the suppliers by effecting arrest and filing of appropriate cases in court. Although the creation of special courts for drug abusers/pushers is recommended, the matter shall be further studied by the judiciary.

**PDEA shall establish a good community rehabilitation program for the farmers who formerly cultivated marijuana.** PDEA shall include the provision of alternative livelihood, financial, technical and marketing assistance to marijuana planters. It shall coordinate with the Department of Public Works and Highways (DPWH) for the provision of infrastructure, especially farm-to-market roads that will facilitate hauling of other vegetable and farm products to the market.

**The Commission on Human Rights (CHR) shall intensify investigation of crimes perpetrated by uniformed personnel and continue promotion of human rights.** There were nine reported cases of crimes in CHR-CAR allegedly perpetrated by uniformed personnel (i.e., PNP or AFP), which is very minimal statistics compared to other urban areas in the country. The CHR shall also continue the promotion of human rights through IEC in schools and offices. To effectively address HR violations, it shall endeavour to file the appropriate cases or refer them to the proper agency.

## **Sub-sector Outcome 2: Public safety, including fire safety and emergency management system (EMS) ensured and disaster risk reduction and management institutionalized**

**Ensure public safety by regularizing the conduct of fire hazard inspection, disaster drills, early detection and warning by the security sector agencies.** Fire prevention seminars, earthquake drills and DRRM trainings shall regularly be conducted so that public safety will be instilled in the minds and practices of Filipinos. Thus, the public should be educated on what to do before, during and after an emergency, calamity or disaster. The DILG shall continue to pursue information-dissemination of Project Listo, while the Office of Civil Defense (OCD) shall conduct seminars on the preparation of Situational Reports (SitReps) and Post-Disaster Needs Assessments (PDNAs).

**Institutionalize DRRM by filling up the DRRMO plantilla positions and regular updating of DRRM Plans, Contingency Plans.** The OCD shall monitor and ensure the appointment of the DRRMOs. LGUs shall be trained on the Incident Command Systems (ICS) and Disaster Contingency Planning.

### Sub-sector Outcome 3: Stable national security environment achieved.

**Provide territorial defense, security and stability services by ensuring adequate number of tactical units and reserve corps.** The modernization programs of the AFP and the PNP shall be supported, while at the same time, adequate tactical units and reserve corps shall be on the standby to ensure that adequate manpower can be mobilized during national emergencies.

- a. Pursue reforms in the security sector by adopting policies, programs and activities that contribute to:
  - Orienting the security forces, to include programs designed to train soldiers, police and other security sector personnel on their respective responsibilities, respect for human rights and international law, and ethnic sensitivity;

- Strengthening the internal security system by supporting the reform efforts in both the AFP and PNP through programs such as the Philippine Defense Transformation Program (PDTP) of the AFP and the Integrated Transformation Program Performance Governance System (ITPPGS) of the PNP.

- b. Pursue the upgrading and modernization of the defense and security establishments to perform the full spectrum of roles and mandates in accordance to the more comprehensive and updated definition of National Security. This entails the following:
  - Capability to perform air, land and sea operations, as mandated;
  - Capacity building of the security sector particularly on non-traditional skills in conflict resolution and peace-building, gender and development issues, and indigenous people's rights; and
  - Capacity building for all officers and civilian employees, in accordance with the highest standards of personal integrity and professional competence.

## Legislative Agenda

*Table 18. 8 Legislative Agenda for Ensuring Security, Public Order and Safety*

Legislative Agenda	Justification
Pass the bill on Cordillera Regional Autonomy (HB 5343)	Address the region's uniqueness in terms of its culture, topography, vulnerability to disasters as well as scarcity of infrastructure facilities and services to ensure progress in the region.



# 19 Accelerating Infrastructure Development



# Accelerating Infrastructure Development

Laying down the foundation for inclusive growth, a high trust society and a globally competitive knowledge economy in terms of infrastructure means that basic services and utilities like adequate and safe water, electricity, education, and health care are made available to the remotest barangay in the region, and that residents are able to reach the nearest market within reasonable time with their farm produce in good condition to command good prices. Moreover, a high trust society implies that citizens have high regard for government because it is efficient and effective and can ably provide affordable and reliable basic goods and services; is fast, responsive, sincere, as well as honest and transparent in all its transactions. As a result, citizens from all walks of life are actively engaged in government affairs, are able to articulate their concerns and eager partners in development. Finally, a requisite for a globally competitive knowledge economy may imply a reasonably-priced and stable power supply, affordable and reliable transportation and communication services as well as engagement in innovative research and product development by both public and private institutions driven by governments' vigorous support in such undertakings.

Thus, rural accessibility, mobility, connectivity, electrification and social infrastructure shall be adequately provided in CAR's remotest barangays to Baguio City's present state, if not better.

## Assessment and Challenges

Despite significant gains in the region's paved national roads, CAR's transportation metrics have yet to level-up against that of its neighbors.

**National Roads.** The major indicator in assessing CAR's transportation system is the paving of national roads. With paved roads, travel becomes cheaper, faster and more reliable resulting in increased mobility and productivity. Paved roads are

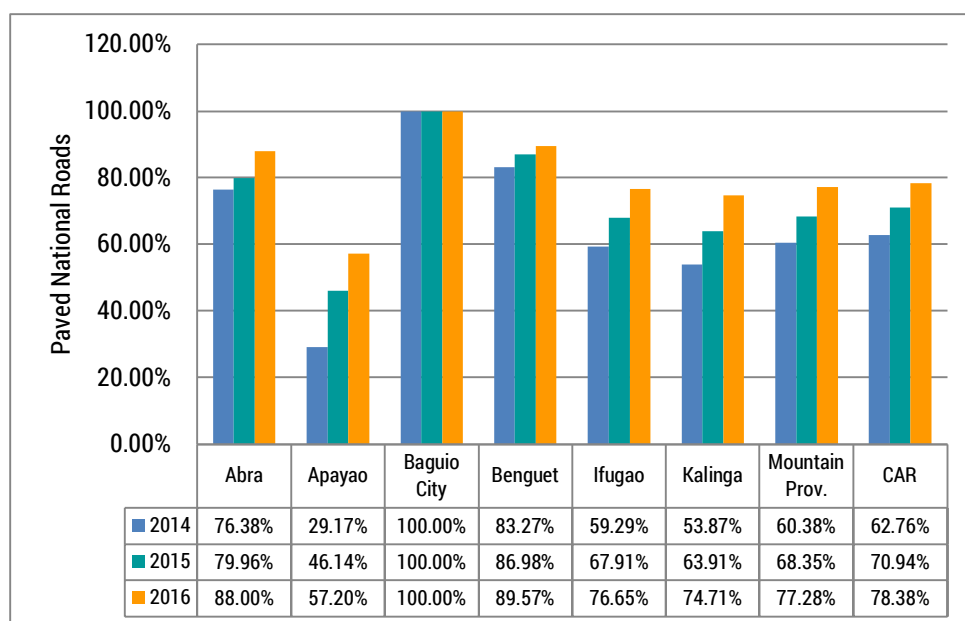
those having surface types of either asphalt or concrete while unpaved roads are those whose surface types are either gravel or earth. As of 2016, CAR's percentage of paved national roads grew from 62.76 percent in 2014 to 78.38 percent in 2016 or an increase by 15.63 percent (Figure 19.1). This is translated into a total of 375.90 KM of newly paved roads, with Apayao receiving the most at 103.56 KM over the three-year period, followed by Kalinga at 84.3 KM, and Ifugao at 61.72 KM. With this, Apayao registered the least in terms of

paved national roads followed by Kalinga, Ifugao and Mountain Province.

Comparing the region's paved national roads with its neighbors and the Philippines in 2016, CAR at 78.38 percent still lags behind Region I at 98.82 percent, Region II at 94.09 percent and the Philippines at 91.58 percent (Figure 19.2). CAR's growth for the period 2014-2016 has been tremendously high mainly because Apayao, Kalinga and Ifugao have been the top priority of the previous administration with increased allocations

per year. However, it is worthy to note that increased annual budget of the DPWH-CAR is not the only guaranty for improved mobility, equally essential issues that need immediate attention are the absorptive capacity of the implementing agency; procurement issues e.g., prescriptions on the capability of contractors which sometimes prolong the bidding process due to the limited number of qualified bidders; right-of-way acquisition, etc. Oftentimes, these issues can impede project implementation.

**Figure 19.1 Percentage of Paved National Roads, CAR: 2016**

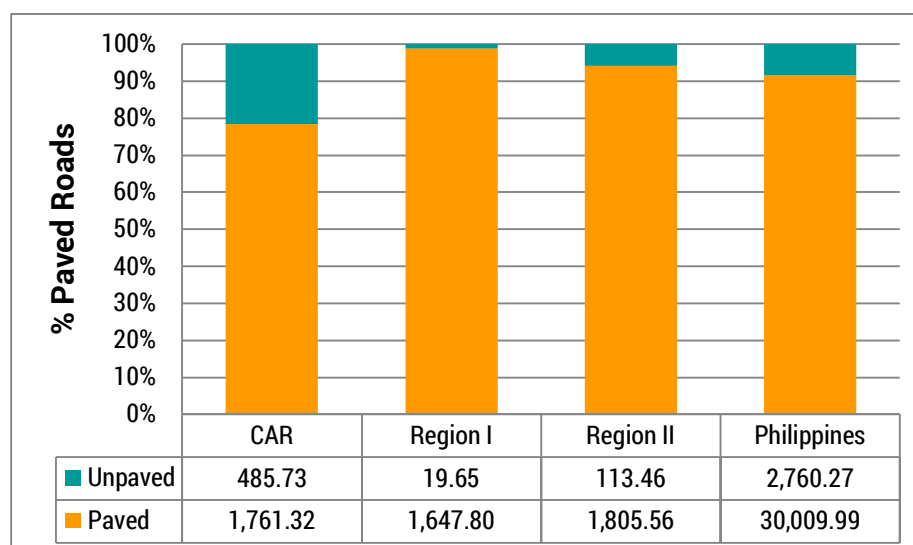


Source of Basic Data: 2016 DPWH Atlas

With respect to the average International Roughness Index (IRI), CAR's national road system is the poorest in the country at 6.88 compared to Regions' I and II at 4.10 and 4.88, respectively, along with the national average registered at 4.62 (DPWH, March 2016). According to DPWH, the

roughness indices categorized as '1-3' are in good condition; indices greater than '3-5' are classified as fair while indices with greater than '5-7' are considered poor. Finally, indices greater than '7' are classified as bad.

**Figure 19.2 Status of National Roads, CAR, Region I, Region II, Philippines: 2016**



**Local Roads.** Local roads consist of provincial, municipal/city and barangay roads. As of the latest available statistics (2006), about 80 percent of CAR's 1,631.8 KM provincial roads are classified as unpaved (G. Llanto, PIDS 2011). This is relatively high compared to that of Regions I and II which are at 35 percent and 76 percent, respectively. National average for unpaved provincial roads has been recorded at 61 percent, still better than that of CAR. The slow paving of local roads can be attributed to the low incomes of many LGUs, which substantially depend on their annual IRA allocations. Notably, around 75 percent of the municipalities in CAR belong to 4<sup>th</sup> to 6<sup>th</sup> income class and most if not all are highly dependent on the IRA.

Moreover, there is no complete and up-to-date information available on the status of municipal/city and barangay roads. On the other hand, in CAR, some barangays are yet to be interconnected with the region's road system while others are motor vehicle accessible only during the summer

months. Meantime, opening of roads in the barangays of Tinglayan, Kalinga for example needs to be prioritized to dissuade communities into producing illegal crops like marijuana.

**Motor Vehicles.** Even as the proportion of paved national roads continued to grow over the years, the number of motor vehicles especially in the rural areas remained wanting. For instance, in 2015, while the country has one vehicle for every 12 persons, the Cordilleras has about one for every 14 persons. And while urban areas in the region like Baguio has one vehicle for every 10 persons, this is not true in the other CAR provinces (Figure 19.3). In Mountain Province for instance, the proportion is one vehicle to 35 people. Similarly, for Kalinga and Ifugao, each one has one vehicle for every 28 people (PSA, RSET 2016). With respect to the proportion of vehicles for hire to population, Benguet registered the least at five percent to the regional total in the

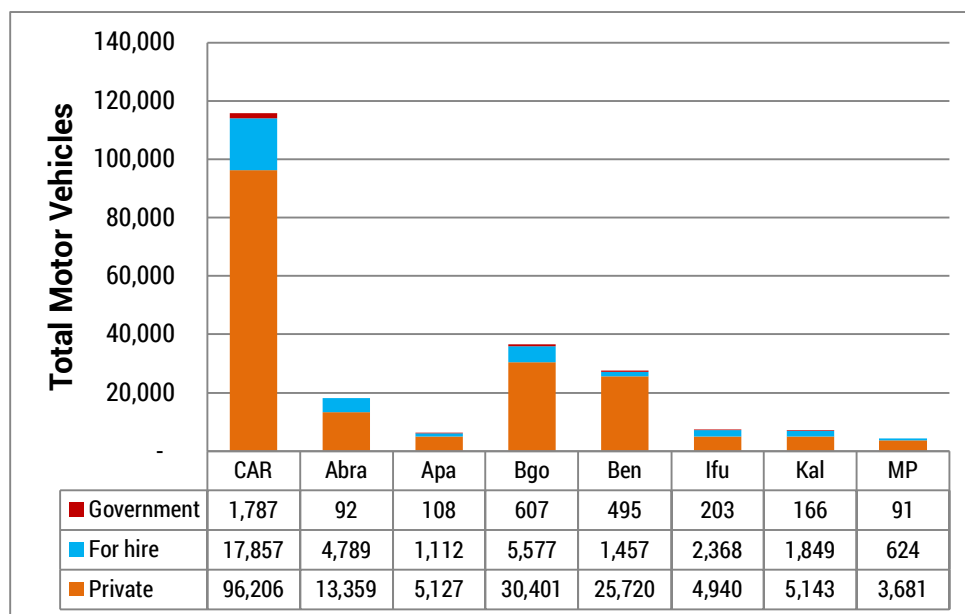
same year, followed by Mountain Province (14 percent) and Apayao (18 percent). Allegedly, one reason for the inadequate number of motor vehicles is the continued suspension of the issuances of new franchises for public convenience. Such moratorium has brought about the proliferation of ‘colorum’ vehicles for hire which, apart from resulting in costly travel also brings about compromised safety to the riding public. According to DoTR, ‘for hire’ vehicles are those usually devoted to ferry the commuting public.

**Airport.** CAR’s lone airport does not cater to commercial flights, limiting travel in and out of the region and thus adversely affecting tourist arrivals, which has also limited the expansion of economic activities in Baguio and its surrounding areas. In the 1990s, the Baguio Airport used to ferry passengers from Manila to

Baguio on an almost daily basis with three in-service commercial flights. However, commercial flights have ceased to operate due to alleged safety concerns, despite the upgrading of the airport in mid-2000, through the airport modernization program. In 2010, a 19-seater aircraft (i.e. Sky Pasada) resumed daily flights but was later discontinued apparently due to airline issues. This has rendered CAR, the only region in Luzon that does not offer commercial flights whilst a land-lock region.

Current safety issues on the airport include: (a) runway incursions due to numerous entry and exit points and dilapidated security fence thus pedestrians, vehicles and stray animals uncontrollably make use of the runway on a daily basis; and (b) illegal structures along Runways 09 and 27, i.e. buildings, BENECO posts, etc.

**Figure 19.3 Number of Vehicles by Type, CAR: 2015**



While most cities and municipalities in the country are already covered with cellular mobile telephone and broadband services, coverage of all municipalities and barangays in CAR is yet to be established.

**Cellular Mobile Telephone Service (CMTS).** ICT that is stable and affordable is vital in accelerating economic growth. MSMEs and businesses can increase their productivity if ICT systems are integrated in their business processes. As of 2016, ICT service coverage in terms of cellular mobile telephones and broadband significantly improved to 100 percent at least up to the municipal level (Table 19.1).

Peace and order, accessibility and the lack of technically feasible locations, are among the challenges cited by telecommunication providers. Although all the municipal centers were confirmed to have basic ICT services, validation of ICT service coverage in all the barangays of the region still has to be done. Worth noting is the fact that ICT services are demand driven and thus, interconnection of far-flung areas may be financially not viable for profit-oriented providers.

**Telephone lines.** In terms of telephone lines, while CAR paints a better picture than that of its neighbors, telephone subscription is still low at two telephone

lines subscribed for every 100 population (PSA, PSY 2015). Accordingly, the province of Apayao has yet to be provided with telephone landlines like the rest of the provinces in the region.

**Broadband.** With the proliferation of smartphones along with the private sector providers i.e., the Philippine Long Distance Telephone (PLDT) and Globe Telecom, Inc., internet use has increasingly become popular among most Cordillerans. Also, in line with DOST's "Internet for All" through its Free Internet Wifi Project, some 33 hotspots or 'public places' in the region have been provided with free wireless internet access (DOST Accomplishment Report 2015). This is to help close the digital divide and thus accelerate economic, social and educational opportunities.

A broadband is defined as a "high-speed internet access which is always on and capable of multiple service provision simultaneously." With the Department of Information and Communications Technology (DICT) now on board, it is expected that ICT services shall be upgraded, improved and be made more affordable to a greater number of Cordillerans.

*Table 19.1 Telecommunications Service Coverage, CAR: 2015 vs. 2016*

Province/ City	No. of Mun.	CMTS coverage				Broadband coverage			
		Number		Percent		Number		Percent	
		2015	2016	2015	2016	2015	2016	2015	2016
Abra	27	26	27	96.30%	100%	26	27	96.30%	100%
Apayao	7	7	7	100%	100%	7	7	100%	100%
Benguet	13	13	13	100%	100%	13	13	100%	100%
Baguio	1	1	1	100%	100%	1	1	100%	100%
Ifugao	11	11	11	100%	100%	11	11	100%	100%
Kalinga	8	8	8	100%	100%	8	8	100%	100%
Mountain Province	10	9	10	90.00%	100%	9	9	90.00%	100%
CAR	<b>77</b>	<b>75</b>	<b>76</b>	97.40%	100%	<b>75</b>	<b>76</b>	97.40%	100%

Source of Basic Data: NTC-CAR

Household energization remains low in CAR compared to its neighbors. Also, despite CAR's huge potential for hydro-electric power, development has been generally sluggish.

**Rural electrification.** Rural electrification service coverage expanded in 2015 with an additional 640 sitios energized through NEA's Sitio Electrification Program (SEP) (NEA Accomplishment Report 2015). This also saw the growth in the number of household connections provided with electricity (Table 19.2). Thus, a total of 5,829 sitios or 79.33 percent and 332,086 households or 87.51 percent are now electrified. Across provinces, Kalinga-Apayao registered the lowest in household service coverage at 82.77 percent, even notably lower than that of the regional average.

Likewise, alongside other regions, CAR registered the least percentage of households energized in 2014 at 85 percent compared to Cagayan Valley's 91 percent

and Ilocos Region's 93 percent. Despite the region being host to various hydro-electric plants, i.e., Ambuklao and Binga Dams, household electrification coverage remains low due to difficult terrain and inaccessibility of a number of communities.

**Hydropower Generation.** CAR's mountainous topography and abundant water resources make hydropower ubiquitous. In fact, this is one of the region's recognized comparative advantages. According to the Cordillera Energy Producer Master Plan, CAR's total hydropower potential stands at 3,587 MW. When harnessed, this can generate additional power supplied into Luzon Grid increasing local employment and national wealth taxes which can help advance development particularly for host communities.



*Table 19.2 Status of Rural Electrification by RECs, CAR: As of 2015*

Rural Electric Cooperative	Barangays			Sitios			HH Connections		
	Coverage	Served	%	Coverage	Served	%	Coverage	Served	%
Abra	303	303	100	128	92	71.88	57,400	49,510	86.25
Benguet	269	269	100	3,102	2,454	79.11	190,700	169,708	88.99
Ifugao	175	175	100	2,885	2,354	81.59	40,400	35,394	87.61
Kalinga-Apayao	221	221	100	568	400	70.42	52,200	43,205	82.77
Mountain Province	144	144	100	664	529	79.67	38,800	34,269	88.32
<b>CAR</b>	<b>1,112</b>	<b>1,112</b>	<b>100</b>	<b>7,347</b>	<b>5,829</b>	<b>79.34</b>	<b>379,500</b>	<b>332,086</b>	<b>87.51</b>

In 2015, the region's contribution to the Luzon Grid has increased with the operationalization of the 14 MW Sabangan Hydroelectric Power Plant (HPP) in Mountain Province and the 0.82 MW Likud HPP in Kiangin, Ifugao. This brought a total of 294.17 MW in CAR's hydropower production, increasing by 5.3 percent from the previous year (Table 19.3). The Sabangan HPP was developed by Hydro-electric Development Corporation (HEDCOR), a private enterprise operating in the region since the early 1990s, while the Likud HPP was put up by the Ifugao Provincial Government in partnership with the Japan International Cooperation Agency. Noteworthy is the fact that hydroelectric power plants have

now been established in Ifugao and Mountain Provinces when previously most of these facilities were hosted by Benguet alone since the 1950s.

Despite modest achievements, hydropower development continues to be gradual due to prolonged approval process by DOE. Permits and clearances also require numerous consultations with host communities. In the meantime, a north-south energy backbone interconnected with existing transmission lines to transmit the hydropower produced in the region into the Luzon Grid. This minimizes costs in energy transmission.

*Table 19.3 Inventory of Hydroelectric Power Plants, CAR: As of 2015*

Hydroelectric Power Plant	Capacity, MW		Year Commissioned	Location
	2014	2015		
Ambuklao	105	105	2011	Bokod
Ampohaw	8	8	1991, 1997	Sablan
Bineng 1	3.2	3.2	1991, 1994	La Trinidad, Benguet
Bineng 2	2	2	1991, 1996	La Trinidad, Benguet
Bineng 2b	0.75	0.75	1992	La Trinidad, Benguet
Bineng 3	4.5	4.5	1992, 1994, 1996	La Trinidad, Benguet
Binga	140	140	2013	Itogon, Benguet
Singit	5.9	5.9	1993	Bakun, Benguet
Irisan 1	3.8	3.8	2011	Tuba, Benguet
Irisan 2	1.2	1.2	1991	Tuba, Benguet
Ifugao-Ambangal	0.2	0.2	2010	Asipulo, Ifugao
Lower Labay	2.4	2.4	1993	Bakun, Benguet
Salangan	2.4	2.4	1991	Itogon, Benguet
Sabangan	-	14	2015	Sabangan, Mt Province
Likud	-	0.82	2015	Kiangan, Ifugao
<b>CAR</b>	<b>279.35</b>	<b>294.17</b>		

Source: DOE, Various Internet Sites

### Water resource-related infrastructures remain wanting especially in rural households

**Domestic Water Supply.** CAR has relatively low percentage of organized water districts at 45 percent of its 77 cities and municipalities, as compared to Region I's 54 percent and Region II's 74 percent (PSA, PSY 2015). Thus, in 2015, only about 44.5 percent of the region's households are serviced with safe water. The provinces registering low percentages are Kalinga, 11 percent; Mountain Province, 32 percent; and Abra, 38 percent (PSA, RSET 2016). Among the reasons cited for the low service coverage are inadequate sources of potable water especially in highly elevated areas, relatively high development and maintenance costs of water supply systems as well as the non-sustainability of

organized water districts. On the testing of water supplied to households, though this is part of the mandates of DOH, the agency points to inadequate manpower to fully carry-out this huge task.

Relatedly, a lingering concern is the lack of coordination between the National Water Resources Board and LGUs with respect to the issuance of water permits has also been raised as a challenge. Apparently, NWRB grants water permits to private concessionaires without the knowledge of LGUs who end up having insufficient water for domestic use.

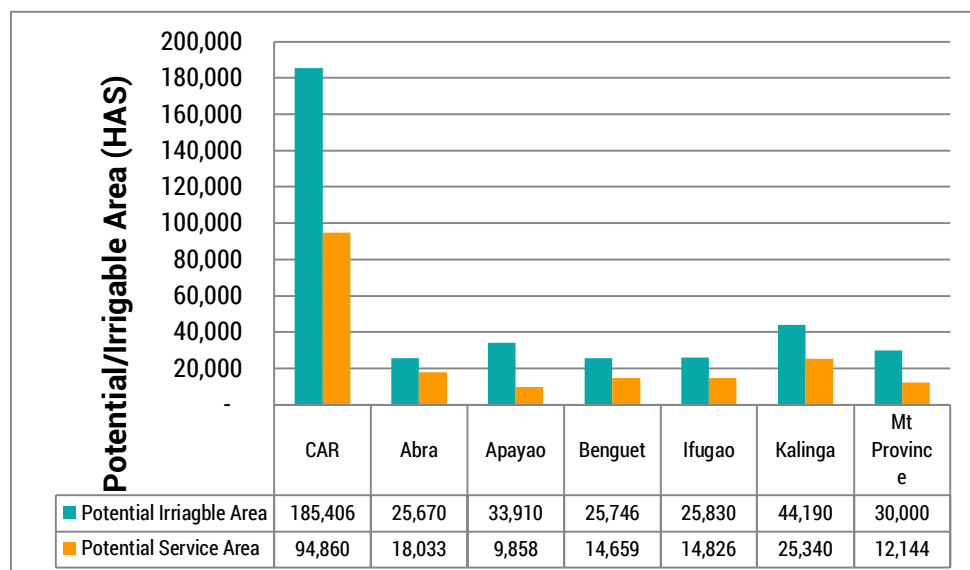
**Irrigation Service.** CAR's irrigated area is relatively lower at 51 percent compared to that of the country at 57 percent, Region I at 64 percent as well as that of Region II at 60 percent (PSA, PSY 2015). According PSA (2015 CAR Regional Socio-Economic

Trends), the provinces of Apayao (29 percent) and Mountain Province (40 percent) were among the provinces that have low irrigation service coverage (Figure 19. 4).

The high development and maintenance costs of irrigation facilities in the region, the difficult topography and the relatively low budget allocated for CAR are among

the reasons for the slow irrigation development. On the other hand, the inconsistent definition of 'potential irrigable area' among NIA officials is also a major reason why NIA-CO allocates lesser budget for CAR. NIA-CO registered CAR's irrigation service coverage at 92 percent instead of the 51 percent as reported by NIA-CAR. This issue however is currently being resolved by the Agency.

**Figure 19.4 Status of Irrigation Coverage by Province, CAR: 2015**



### Provision of basic social services needs to be improved

**Elementary and Secondary Schools.** According to DepEd for SY 2015-2016, on a regional level average, there is one public classroom available to roughly 28 pupils for Kindergarten-Grade 6, although this ratio is higher in Kalinga and Mountain Province at one classroom for every 47 students and 40 pupils, respectively. For Secondary Schools, the regional average is one public secondary classroom for every 34 students. Above normal standards

however may be observed in the cities of Baguio and Tabuk where one classroom is being made available for 48 and 59 high school students, respectively.

**Hospital beds.** Based on World Health Organization (WHO) standard of 20 hospital beds per 10,000 population CAR is still in need of roughly 1,590 public and private hospital beds, broken down as follows: Benguet, 667; Ifugao, 356; Kalinga, 265; and Abra, 286 beds. Baguio City has exceeded the required number of beds by 190 in 2015 (PSA, PSY 2015). However,

with the devolution of hospital management to LGUs, DOH adopts a more practicable yardstick that takes into account the capacity of LGUs to provide for medical facilities and personnel to warrant increases in hospital beds. While such policy may be in order, this may be quite appalling as public health can be compromised especially for LGUs that cannot afford to upgrade its facilities or provide such basic service though the national government continues to allocate funds through its Health Facility Enhancement Program to help address this concern.

### Inadequate urban infrastructure facilities and services in the BLISTT, Eastern Kalinga and the region's capital towns

Apart from Baguio, there is an urgent need for the City of Tabuk and the capital towns of La Trinidad, Bangued, Bontoc, Lagawe, Kabugao and other key nodes to provide better access quality urban services and facilities like water supply, sewerage and drainage, solid waste, disaster-related facilities, housing, e-government services, ICT and other social-related infrastructure i.e., jail facilities, rehabilitation centers, etc., in response to rapid urbanization.

**Transportation.** Travel to Baguio and its environs has been made more efficient with the recent opening of TPLEX. As a result, many tourists regularly visit the city especially on weekends and holidays causing monstrous traffic along the its limited and narrow streets. Aggravating congestion which has also contributed to air, noise and even water pollution is the widespread on-street parking resulting

from the lack of parking spaces. This has compromised safety among pedestrians and other motorists. For Baguio City and the LISTT, the following need to be urgently put in place.

**Solid waste management.** Baguio city's solid waste management facilities have been rendered inadequate to accommodate its growing population, the rising student enrolment as well as the steadily increasing influx of visitors. In addition, technically viable areas for garbage disposal are hard to find given the city's very limited area. Hence, the city resorts to more expensive means of disposing its garbage by hauling to other areas like Tarlac. Sometimes, garbage remains uncollected due to the city's limited resources, adversely affecting health and sanitation in the city.

**Domestic water supply.** With the city's receding forest cover and growing demand for water, a good number of households are not served by Baguio Water District especially during the dry season. Many households rely on water delivery for their daily consumption. Also, some institutions maintain their own water supply systems to ensure a steady and reliable supply especially during summer.

**Sewerage, drainage and flood control.** Upgraded and rehabilitated sometime in 2000, Baguio's sewerage system primarily serves the central business district. Residential buildings are serviced by their self-constructed septic tanks – which may not necessarily be sanitary if not maintained and regulated. Besides, such practice may negatively impact on the quality of ground water supply which is the main source of water in the city.

**E-government-related services.** While the city government has made significant improvements on its governance systems and thus, raised the ease of doing business, it may yet has to further enhance them to be at par with the other highly urbanized cities in the country. As of 2016, of the 34 highly urbanized cities, Baguio City ranked 14<sup>th</sup>. Areas that may still need some upgrading through automation include business licensing, permitting, tax mapping, crime prevention/resolution, etc.

**Disaster-related facilities and services.** The city's growing population, its vulnerability to landslides, and it being seat of the regional government necessitate the building of a fully-equipped regional disaster operations center that will cater to the needs of the BLISTT and its environs. The center should be wide enough to house state-of-the-art ICT equipment, transportation services and other support facilities. Moreover, it should be able to accommodate possible evacuees during calamities so that schools will no longer be used. Also, the city is yet to be equipped with sufficient firefighting apparatus for rescue operations. Meanwhile, LGUs in the region may likewise need to identify possible relocation sites for the possible transfer of endangered settlements and dwelling units.

## Other key infrastructure-related issues

**Low infrastructure competitiveness of CAR.** In the 2016 Cities and Municipalities Competitiveness Index (CMCI) that assessed 74 provinces along economic dynamism, government efficiency and infrastructure, none of the five competing provinces in the region landed in the top 20 slot, though Benguet ranked 21<sup>st</sup>. On infrastructure alone, no CAR LGU citations were received for the 490 1<sup>st</sup> - 2<sup>nd</sup> class municipalities, 110 component cities and 34 highly urbanized cities -- not even La Trinidad, Tabuk nor Baguio City placed in 2015 and 2016 awards. Occupying 18<sup>th</sup> place, only Buguias, Benguet was able to land in the top 20 for the 3<sup>rd</sup> - 6<sup>th</sup> class municipalities in the country numbering to 755. The criteria for infrastructure development are: (1) existing road network; (2) distance of center to major ports; (3) DOT-accredited accommodations; (4) health infrastructure; (5) education infrastructure; (6) availability of basic utilities; (7) annual investment in infrastructure; (8) connection of ICT; (9) number of ATMs; (10) number of public transport vehicles. In CAR, 56 (out of 77) cities and municipalities including Tabuk City and Baguio City participated in the 2016 CMCI.

**Vulnerability of infrastructures to disasters and calamities.** CAR's geographical location and physiological features make it a regular recipient of annual high intensity rainfall and gusty winds. Year after year, damage to infrastructure facilities and services recur partly due to inappropriate design, poor construction, inadequate maintenance or combination of such. Hence, the need to urgently develop disaster-resistant and climate change adaptable infrastructure facilities that are properly constructed and maintained. Thus, inadequately designed and constructed roads, irrigation facilities, water supply systems, power and communications systems, buildings, etc., become highly susceptible to damage.

**Relatively higher infrastructure development and maintenance costs and inappropriateness of planning standards.** The region's uniqueness calls for special designs and cost estimates for the development and maintenance of infrastructure facilities. Standard lowland-oriented designs and cost estimates are usually not adaptable to the region's unique physical make-up and geographical location. Likewise, demand driven national standards for hospital and school buildings are often inappropriate due to CAR's dispersed settlement patterns, difficult terrain, relative inaccessibility and unique culture -- these have become the major motivation for the quest of self-rule.

**Limited data and information for planning and development especially at the local level.** Planning and development of facilities especially at the local level becomes haphazard due to the lack of reliable data and information from where sound decisions can be drawn. There is dearth of reliable statistics on local roads since mid-2000 after the enactment of local government code. Perhaps this is a reflection of the insufficient planning skills among LGUs or probably reliable data have been regarded as less priority considering the meager budgets LGUs receive. Moreover, disaggregation of data needs to be urgently addressed if honest-to-goodness planning and development are to be carried-out. To date, data produced by the Philippine Statistics Authority for Benguet and Baguio are usually lumped together, i.e., poverty statistics, HDI, etc., which oftentimes result in unrealistic planning and development. This is also true for data and statistics of the provinces of Apayao and Kalinga particularly on rural electrification as well as irrigation service coverages.

**Lack of LGU funds to finance infrastructure development and inadequate private sector investments especially in the rural areas.** Almost all LGUs in CAR are 80 to 90 percent dependent on external sources like the internal revenue allotments (IRA) even as the IRA is hardly sufficient to cover their

maintenance and operating expenses. Meanwhile, the Public Private Partnership (PPP) is yet to be fully adopted so that both the public and private sectors are able to take advantage of it not only in financing big ticket projects but micro and small undertakings as well.

**Poor state of infrastructure facilities in rural areas.** Majority of public buildings and facilities, i.e., schools, hospitals, municipal halls, day care centers, etc., are poorly constructed and maintained and/or improperly situated especially in the rural areas. This is due to the combined factors of inadequate skilled labor, lack of technical skills, limited construction space and inadequate funds for development and maintenance. Apart from their deteriorating physical condition due to lack of maintenance, these structures are likewise highly susceptible to damage from typhoons.

**Need to strengthen the capacities of institutions i.e., rural water districts and electric cooperatives/organizations.** While some electric cooperatives in the region have flourished over the years, a good number can be tagged as ‘ailing’ – usually caused by either lack of financial

resources, lack of management and/or technical skills, etc. Likewise, the operations of some organized water districts in the region have not been sustained possibly due to governance issues, political interference, etc.

**Inadequate absorptive capacities and/or issues on systems and procedures have slowed down project implementation.** Along with increased agency budgets are additional number of trained manpower, tools and equipment coupled with improved project management skills. Oftentimes, LGUs are not fully staffed due to lack of resources; they lack the necessary skills to implement huge projects nor they have the required equipment and tools to effectively perform their duties and responsibilities.

Procurement issues such as ‘too many requirements’ on the part of bidders, no qualified contractors, etc., as well as conflicting and/or ambiguous procedures have also significantly contributed in the delay of project implementation.

## Strategic Framework

To address the current state of infrastructure development in the region, it is the intention of this Plan to raise the region’s infrastructure competitiveness as well as advance community livability by accelerating infrastructure development and strengthening infrastructure-related institutions, systems and procedures (Figure 19.5). It is hoped that this strategy

shall facilitate the attainment of the Plan’s overall goal of laying down the foundation for inclusive growth, a high trust and resilient society and a globally competitive knowledge economy through the intermediate goals on enhanced social fabric, reduced inequality and increased growth potential. Below are the specific



targets (Table 19.4) and strategies the Plan aims to attain.

## Targets

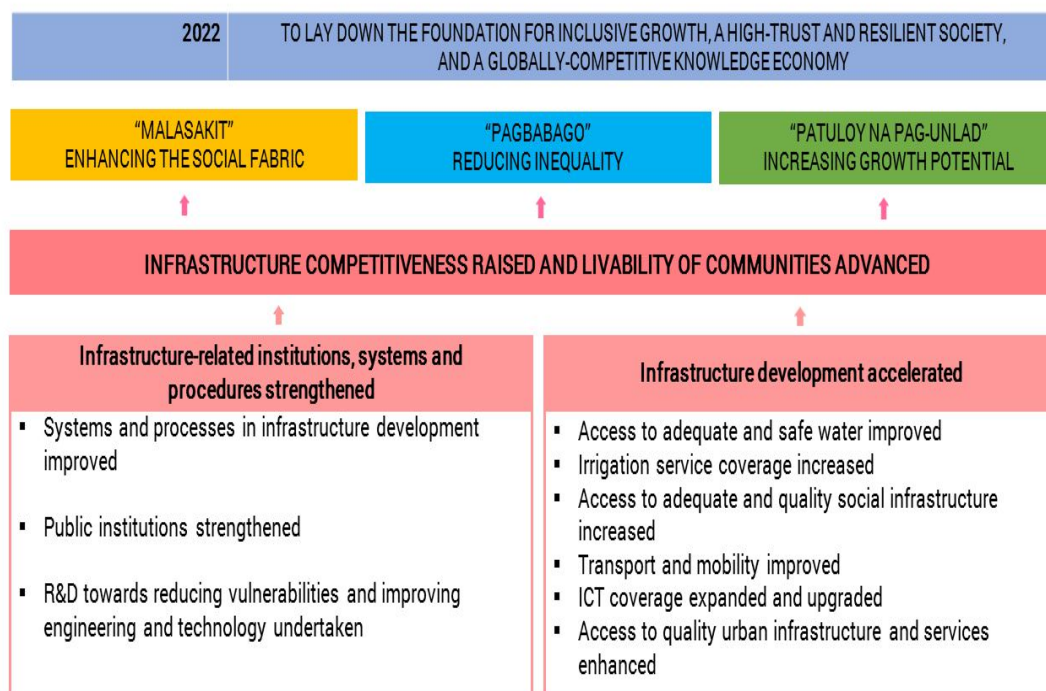
*Table 19.4 Plan Targets for Accelerating Infrastructure Development, 2017-2022*

INDICATORS	BASELINE		END OF PLAN
	YEAR	VALUE	TARGET
<b>Access to adequate and safe water improved</b>			
% of households provided with safe water	2013-2015	44.52	90
No. of organized water districts increased (operational)	2015	9	Increased
No. of Water District Service Connections	2015	64,854	Increased
<b>Access to adequate and quality social infrastructure improved</b>			
Total number of hospital beds in public hospitals increased	2015	1,190	1,215
Kinder-Grade VI classroom to enrollees ratio improved	2016	1:21-47	1:25-45
Secondary classroom to enrollees ratio improved	2016	1:27-59	1:40-45
% of households provided with access to sanitary toilet	2015	41.85	100
<b>Rural electrification expanded, hydropower generation improved</b>			
% number of sitios serviced with electricity increased	2015	79.34	Increased
% number of households serviced with electricity increased	2015	87.51	Increased
CAR's hydropower contribution to the Luzon Grid increased (MW)	2015	294.17	Increased
<b>Transportation and mobility improved</b>			
% paved national roads increased	2016	78.38	Increased
% paved national primary roads increased	2016	100	100
% paved national secondary roads increased	2016	93.75	Increased
% paved national tertiary roads increased	2016	63.02	Increased
% of paved provincial roads increased	2015	29.67	Increased
Vehicle to population ratio decreased	2015	14.86	Decreased
% of 'For Hire' vehicles increased	2014	16.76	Increased
No. of Aircraft Movement increased	2014	844	Increased
No. of Passenger Movement increased	2014	2,025	Increased
<b>ICT coverage expanded and improved</b>			
% of municipalities covered with CMTS expanded	2015	98.7	Increased
% of municipalities with broadband service expanded	2015	97.4	Increased
% of lines subscribed increased	2014	60	Increased
Teledensity increased (lines per 100 population)	2014	2.26	Increased
No. of public places (hot spots) provided with 'free WIFI' increased	2015	33	Increased
Number of broadcast stations increased	2014	49	Increased
Number of CATV stations increased	2014	19	Increased



## Strategies

**Figure 19.5 Strategic Framework for Accelerating Infrastructure Development, 2017-2022**



### Subsector Outcome 1: Infrastructure development accelerated

**Fast-track the completion of the Cordillera Roads Improvement Project (CRIP).** The completion of the CRIP has been the battle cry of Cordillerans since the creation of the region three decades ago. The CRIP aims to link the region with its neighbors while promoting the interconnection of provinces, towns, barangays and key nodes through improved all weather roads.

Although major progress has been made in the recent years on land transport, improvement of some critical sections

along CAR's major backbone needs to be accelerated. There is urgent need to establish the northern section of the Regional Trunkline specifically the Calanasan-Claveria Section, complete the Bontoc-Lubuagan-Tabuk Section and the Abbut-Conner-Kabugao Section as well as East-West Laterals such as the Abra-Kalinga Road (i.e., Tabuk-Balbalan-Bangued Road), Banaue-Mayoyao-Aguinaldo-Alfonso Lista Section, the Bontoc-Barlig-Natonin-Paracelis Road (i.e., Jct. Talubin-Callacad Section), the Kabugao-Pudtol-Luna Road as well as the Kabugao-Calanasan-Solsona Road. Transforming these to all-weather roads shall likewise provide access to remote barangays and villages in the region.

Meantime, to quickly resolve right-of-way issues, and facilitate the issuance of permits and clearances, there may be a need to establish mechanisms for this purpose and develop closer collaboration between implementing agencies and LGUs.

**Accelerate the funding of local roads, i.e., provincial, city/municipal, barangay roads, as well as development and funding of alternative transport systems.**

Construction and maintenance of local roads are essentially under the jurisdiction of LGUs who are usually cash-strapped. Thus, the need to continue implementing DOT's Tourism Roads, DILG's Kalsada Program, DA's PRDP, etc., as well as to provide funds for the Local Roads Improvement Program. The PAMANA funds may also be explored for this purpose.

In the development of local roads, priority should be given to inaccessible communities such as Tinglayan in Kalinga, among others. Alternative transport systems, e.g., footpaths, tire paths may also be provided to ensure accessibility of far-flung communities.

**Open up the Baguio Airport for commercial flights.**

The limited operationalization of the Baguio Airport has rendered the region inaccessible based on international standards, thus reducing the number of tourist arrivals and limiting the expansion of economic activities. The airport has not been catering to commercial flights since the 1990s due to technical as well as operational issues. A pre-feasibility study on the facility has been prepared awaiting investments from the private sector. To facilitate the

development of the airport and ensure air ridership, tax incentives/holidays or government shares on ridership may need to be offered to prospective investors. Moreover, the construction of the perimeter fencing may need to be urgently carried-out to secure the airport. In the meantime, closer tie-up with Clark International Airport may be pursued to possibly provide direct transfer of passengers from Clark to Baguio City. Also, there may be need to explore the possibility of the Baguio Airport serving as jump-off point to other local tourist destinations like Batanes, Boracay, Bohol, Coron, Cebu, Davao, etc.

**Expand rural electrification service coverage.**

The major bottleneck hampering the expansion of rural electrification in CAR is its mountainous topography, with the lack of accessibility of communities resulting to more prohibitive costs of development. It is of no wonder why until this time, household connection, has remained at 87 percent service coverage. While pockets of off-grid developments were registered in the past, some of these particularly those powered by solar energy have not been maintained due to technical issues and the absence of strong sustainable mechanisms.

To tackle these concerns, the government's Expanded Rural Electrification Program which is envisaged to achieve 100 percent barangays electrification by 2008 and 90 percent household electrification by 2017 need to be advanced. A main thrust of the ER Program Team according to DOE is to formulate and recommend policies and guidelines to implement rural/missionary electrification with

greater private sector participation. The ER Program is also into the development of various innovative service delivery mechanisms towards achieving greater access to electricity services.

Meanwhile, the improved accessibility and mobility situation in the region is a positive development as it paves the way for less costly rural electrification expansion programs.

**Push and advance the development of hydropower plants.** Undertake investment fora to help secure funding for project ready hydros. Encourage locally grown entities like the CRECA to partner with private investors in developing hydro-projects. Meanwhile, benefits to host communities must be ensured through the amendment and/or harmonization of related national policies and laws.

**Expand ICT service coverage.** Encourage ICT service providers to expand services in rural areas as part of their social responsibility, and improve on the quality of their services in the urban areas to meet industry standards. Government through DICT, will fill in the gaps to close the digital divide.

**Provide safe and adequate water to all households.** To realize this, LGUs through the assistance of DOH may need to update or establish an inventory of barangays/ communities and households provided with or without safe water. The inventory should be the basis for project development and programming.

**Expand irrigation service coverage.** Irrigation service coverage needs to be

accelerated specifically for the provinces of Apayao and Mountain Province.

**Close the gap on the inadequacy of school buildings and hospitals.** This entails the construction of adequate school and hospital buildings, upgrading of equipment and facilities as well as hiring and training of personnel. In the meantime, titling of lands devoted to public facilities and institutions needs to be pursued.

**Implement, upgrade and/or rehabilitate urban infrastructure facilities to ease up traffic congestion, enhance government facilities (i.e., buildings/centers, rehabilitation centers, jails, public buildings, etc.) and ensure their compliance to the national building code, accessibility law and other statutory requirements.** Urban infrastructures and facilities should be made compliant to the National Building Code and related statutory requirements. Ensure the adoption of the build-back-better principle in the reconstruction/restoration/rehabilitation of disaster-affected buildings and infrastructure facilities.

**Subsector Outcome 2: Infrastructure-related institutions as well as systems and procedures strengthened**

**Reduce inequality among regions and provinces by vigorously pushing for higher budgets of CAR agencies to accelerate infrastructure development as well as cover for additional construction and maintenance costs to help address the inappropriateness of national planning standards.**

The recent significant improvement on CAR's transport and mobility is linked to the growing DPWH annual budget. In 2014, DPWH's annual budget allocation was close to Php7 billion. This grew further in 2015 at over Php10 billion. It is therefore essential that the DPWH annual budget allocation for CAR is maintained if not steadily increased over the years until CAR's poor state of accessibility is effectively addressed.

Thus, the Regional Development Council with DPWH officials may need to intensify their efforts to secure more funding for the region. Meanwhile, the absorptive capacity of the DPWH in project implementation may likewise need to be addressed through additional manpower, enhanced technical capability in design, programming and project management. On the other hand, to ensure that local contractors and the region both benefit from added construction activities and budget, local contractors might need to merge their resources so that they can compete with other developers from outside the region.

**Suspend the moratorium on the issuance of Certificate of Public Convenience.** The LTFRB needs to lift its policy on the moratorium for the issuance of CoCs specially to service the rural areas in CAR especially in the rural areas like Abra.

**Streamline the application process for hydropower development and other projects.** While the region boasts of huge hydro-power and geothermal resources, these remain practically untapped. This is because of a combination of factors to include the lengthy application and approval processes of energy development

projects especially so that the region is situated in an environmentally critical area and is home to indigenous peoples necessitating numerous consultations, permits and clearances; the huge amount of start-up capital required to establish hydroelectric power plants; the difficult mountainous terrain that impede construction activities thus resulting in more expensive projects; the lack of related local technical as well as organizational and managerial skills for such projects.

To boost hydropower development, information and education campaigns by the government may need to be intensified. IECs may be designed to include topics on the approval process, capitalization requirements as well as enhancing technical and hydro-electric power plant development and management skills. Relaxation of the processes through the establishment of one-stop-shop processing centers as well as better tax incentives for would be investors. Government may likewise arrange benchmarking activities and sharing of best practices between prospective investors and current industry players. Benchmarking with Ifugao LGU, Hedcor, SN Aboitiz, etc., may be organized.

**Pursue research and development endeavors towards the design and development of disaster-resilient facilities as well as pursuits for sound engineering and construction practices in mountainous areas.** To prevent further loss of lives and save on annual rehabilitation and restoration of facilities in the region, an urgent need for the development of disaster-resilient infrastructure and facilities is vital in accelerating development in this disaster-prone region. Likewise, effective

construction practice be explored along with the adoption of the build-back-better principle. Moreover, to sustain research and development activities, the CAR Regional Development Council may need to urgently create a R&D Committee to prepare/update a more responsive regional research agenda. In the meantime, SUCs are encouraged to upgrade their R&D skills to cater to the needs of the region along this concern.

**Prepare and fund urban master plans and feasibility studies for solid waste management, sewerage, water supply and drainage, traffic and transportation management, ICT, e-government, peace and security services, urban housing, disaster management, etc., consistent with national development plans.** The BLISTT Action Agenda 2017-2022 which details the development priorities of Baguio City and its surrounding municipalities has recently been approved by the BLISTT Governing Council for execution. It is imperative that the national and local governments as well as the private sector unify and push for its realization. For the other urban areas in the region like the City of Tabuk and the other capital towns, it is suggested that urban site plans be formulated and feasibility as well as detailed engineering studies be carried-out covering major infrastructure interventions the soonest time possible.

**Promote and backstop the BLISTT as urban development cluster and other key clusters in the region to address limited land towards a more responsive urban development and governance.** Sustain the institutions that make up the BLISTT and

strongly advocate for the establishment of the BLISTT Development Authority. Create other bodies that will advance the development of other growth areas.

**Raise private sector awareness on and engagements in public-private-partnership in the financing of not only big ticket infrastructure projects but also small scale undertakings.** Conduct fora and symposiums to raise awareness on the policy on Public and Private Partnership. Along with this, is the need to strengthen networks with the private sector including cooperatives for the funding of infrastructure projects not only in urban but also in rural areas.

**Strengthen public institutions like LGUs, water districts, barangay water and sanitation associations, rural electric cooperatives, etc., by improving on their technical capabilities for planning, programming, revenue generation, project development, project management in collaboration with partners from the private sector and the academe.** Mobilize resources, establish and strengthen networks, secure funding assistance for the conduct of massive capability-building among institutions in the public sector.

**Establish a system for gathering, processing and storing data and information for infrastructure planning and development.** The Regional Development Council, through its Regional Statistics Committee might need to venture into such undertaking. Reliable data and information on local statistics should be regularly generated for planning and development purposes.

## Legislative Agenda

The following set of priority legislative and policy interventions are deemed critical in the attainment of the goals and objectives towards accelerating infrastructure development in the region.

**Table 19.5 Legislative Agenda for Accelerating Infrastructure Development**

Proposed Legislation	Purpose
Pass the bill on Cordillera regional autonomy	Address the region's uniqueness in terms of mountainous topography, culture, vulnerability to disasters as well as scarcity of infrastructure facilities and services.
Amend the Local Government Code, Water Code, National Revenue Code	<p>Review and amend the Internal Revenue Allocation criteria to favor LGUs belonging to the low income bracket and those with inadequate basic infrastructures services.</p> <p>Harmonize conflicting laws (e.g. Water Code and the Local Government Code on the issuance of water permits so that LGUs have a say in the issuance of permits.</p> <p>Review the provisions on the National Wealth Taxes such that these are directly paid to the host communities and not to where central business operations are located.</p>
Amend the EPIRA Law, the Indigenous Peoples Rights Act (IPRA), the Renewable Energy Act, the Local Government Code	Harmonize the definition of host communities and their benefits relative to water resources and energy development.
Simplify the Procurement Act	Simplify the procurement process and scale down the requirements of the Law to facilitate project implementation especially in areas with scarce infrastructure facilities.

# 20

## Maintaining Ecological Integrity, Clean and Healthy Environment





# Ensuring Ecological Integrity, Clean and Healthy Environment

As the Watershed Cradle of North Philippines, the Cordillera provides environmental services as host to 13 major river basins that supply water for irrigation, hydroelectric power generation, fisheries, industrial and domestic use. Along with these services are the crucial functions of mitigating flooding, erosion and siltation of river systems in downstream regions with the preservation of watersheds and forests in the highlands. The implementation of reforestation programs has arrested the decline in forest cover but the region's mossy or old growth forests are still under threat from the encroachment of farms and settlements. Water and land resources, on the other hand, are at risk of pollution from the excessive use of pesticides and fertilizers in agriculture, mining operations, and waste from households, business and industrial activities. The preservation of the region's land and water resources, rich biodiversity and air quality in urbanizing areas is therefore a priority in the quest for sustainable and equitable development.

## Assessment and Challenges

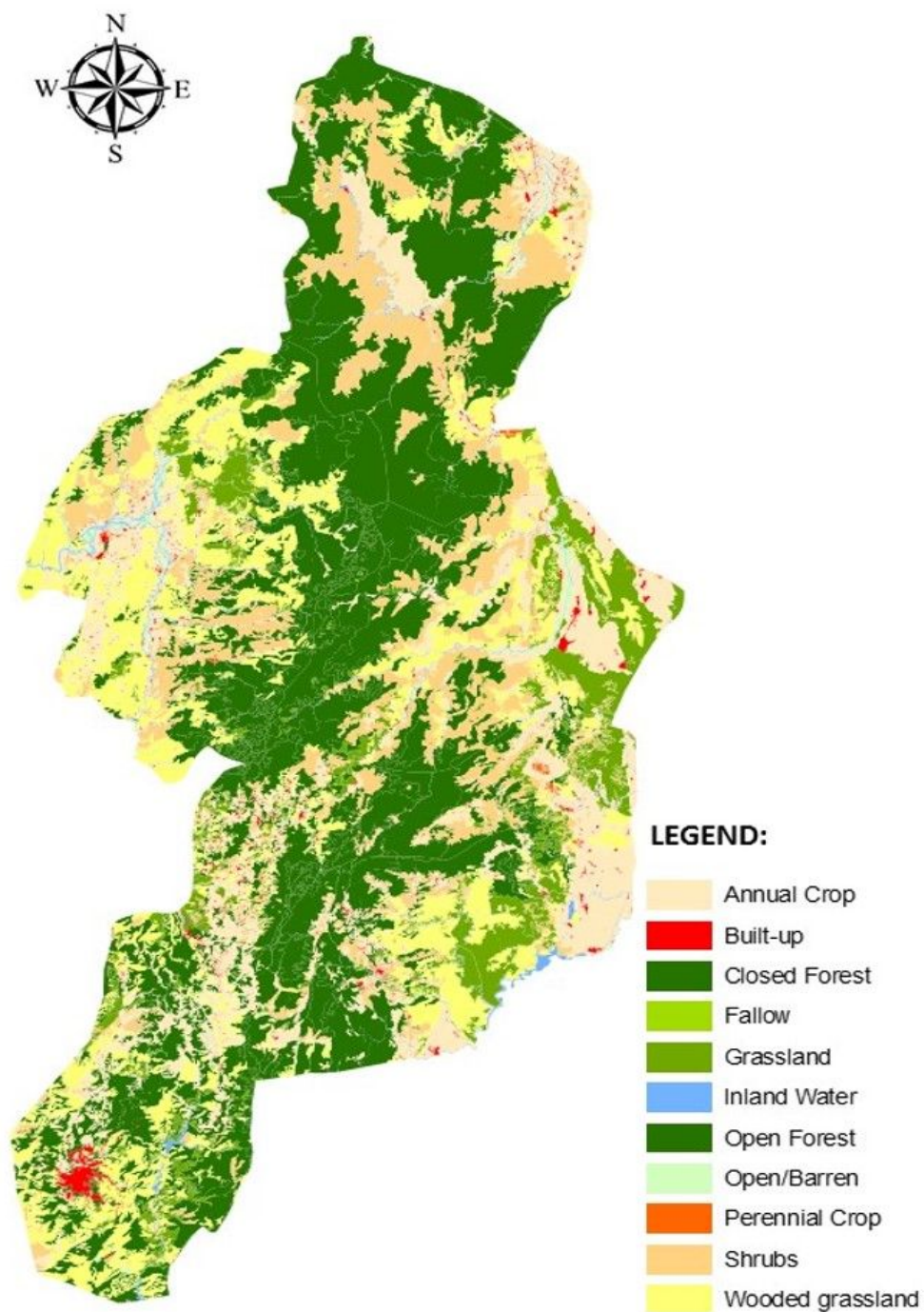
### Forest Protection and Management

The National Greening Program (NGP) saw total plantations established since 2011 to more than 102,000 hectares by 2016, exceeding targets for the 6-year period. Meanwhile, the maintenance and protection of two-three year old NGP plantations covering 44,576 hectares was sustained. An assessment of the status of seedlings for plantations established in 2014 indicated an average survival rate of 86%. With the gains in reforestation, the forest cover is estimated to increase from 46 percent to the target of 50 percent by 2016.

Forest patrol and surveillance were conducted over 1,046,829 hectares of

forestlands or 67 percent of the region's forestlands of more than 1.5 million hectares. Of these, 162,807 hectares were of the region's national parks and forest reserves. In terms of watershed and river basin management, the integrated river basin development and management master plans were completed or adopted for the following priority river systems in CAR: the Abra, Agno and Apayao-Abulug River Basins as well as the Cagayan River Basin that includes the Chico River. The organization and strengthening of the River Basin Management Councils for the identified river basins are ongoing.

*Map 20.1 Land Cover Map, CAR: 2010*



## Land Management and Administration

Implementation of the Land Administration and Management System (LAMS) that provides for the computerization of all land records is ongoing. Along with this is the implementation of the Land Titling Computerization Project (LTCP) of the Land Registration Authority (LRA). In 2011-2015, a total of 57,868 land titles were issued (patents, CLOAs) covering 18,457 hectares. The steep topography of the region constrains land tenure improvement, however, with only 15 percent of total land area considered alienable and disposable or 292,468 hectares of the total land area of 1,865,660 hectares.

An avenue to ensure land ownership and management of natural resources by indigenous people (IP) communities is the issuance of Certificates of Ancestral Domain Titles (CADTs) over ancestral lands. The process, however, entails extensive consultations with IP communities, validation of claims, delineation of boundaries and preparation of an Ancestral Domain Sustainable Development and Protection Plan (ADSDPP). In 2015-2016, the CADT for Kadaclan in the municipalities of Barlig and Natonin in Mountain Province was approved. The domain covers 9,027 hectares that is home to 2,532 IPs.

## Environmental Quality Preservation

### Water Quality

Regular monitoring of 16 inland water bodies, 15 rivers and one lake (Ambulalakaw Lake in Kabayan, Benguet) from 2006-2013 indicates compliance with most water quality parameters except for Balili River that runs through the urbanized areas of Baguio City and La Trinidad, Benguet. The water quality indicators measure compliance of the water body to the required classification standards for its beneficial use such as for domestic, irrigation, power generation, fisheries, industrial and recreational purposes. Of note is the compliance of classified water bodies as sources of public water supply. Of the two water bodies classified as Class AA for drinking water supply with minimum water treatment required, both the Ambulalakaw Lake and

the Nagan River in Apayao passed the standards. However, the Class A designated rivers for drinking water supply that require conventional water treatment did not pass 100 percent the water quality testing parameters. Among the causes of water pollution identified were the encroachment of illegal structures along the easements of rivers and the dumping of garbage and sewage; contamination of pesticides and agricultural wastes; siltation due to erosion, farming and construction activities; dumping of industrial wastes, mining, and sand and gravel operations.

In response to such threats, the severely polluted Balili River and Bued River in Benguet have been declared as Water Quality Management Areas (WQMA). In addition, the Amburayan River Basin is also proposed for WQMA through a

multi-stakeholder initiative in cooperation with the concerned local government units (LGUs). The objective of the WQMA is to protect the water body and ensure its water quality conforms to the standards of its beneficial use.

### Ambient Air Quality

In terms of ambient air quality, sampling and monitoring is conducted regularly in strategic locations in Baguio City and urbanizing areas of adjacent municipalities particularly La Trinidad, Benguet. Ambient air quality is the condition of the air in the environment that directly affects human health. Overall, the air quality index for Baguio city is considered “good to fair”.

### Solid Waste Management

Sixteen years after the passage of Republic Act 9003, the Ecological Solid Waste Management Act of 2000, and the issuance of its Implementing Rules and Regulations

in 2001, an assessment of compliance to its provisions indicate the difficulty LGUs experience in solid and liquid waste management. In terms of solid waste management, only 19.57 percent of barangays have Materials Recovery Facilities (MRFs) while no sanitary landfills are presently operational. The low compliance is due to the lack of LGU resources considering the costs of establishing a sanitary landfill and the region’s mountainous terrain that limits suitable sanitary landfill sites.

In terms of the establishment and operation of provincial, city and municipal solid waste management boards, however, the CAR reported 100 percent compliance with the six provinces and 77 municipalities and cities reporting active Solid Waste Management (SWM) boards. Likewise, at the barangay level, compliance is 100 percent with the establishment of Barangay Solid Waste Management Committees in the region’s 1,174 barangays.

## Minerals Industry Development

The Cordillera region is rich in mineral resources and large-scale mining has, in the past, been a significant contributor to the regional economy. Sanctions due to incidents of environmental pollution, however, and the increasingly stringent requirements for the consent of affected communities have constrained the operations and expansion of large scale mining. Gold and copper concentrate are the major products of the industry. In 2016, total gold production of 4,425 kilograms was valued at more than Php8.5 billion. This was an increase from the

Php7.3 billion produced in 2015 and Php8.2 billion output in 2014. Production of copper concentrate, on the other hand, was 73,109 dry metric tons (DMT) in 2016 valued at more than Php3.7 billion. Copper production increased also from the Php3.5 billion produced in 2015 but lower than the Php4.7 billion output in 2014. Estimated reserves for gold ore are about 982,697 metric tons (MT) and for copper ore about 1.16 billion DMT, mostly in Benguet.

Small-scale mining (SSM), meanwhile, is proliferating across the region as a major source of livelihood in the rural areas. As of 2016, a survey indicated 19,758 small scale miners in the region, about half of whom are located in 9 of the 13 municipalities of Benguet province. There are 12 SSM associations or cooperatives with temporary Small-scale Mining Contracts issued by the Provincial Mining Regulatory Board (PMRB) of Benguet. Other organized groups are 16 associations comprising 3,300 miners operating in partnership with Benguet Corporation under the Acupan Contract Mining Project.

As provided for by RA 7076, the People's Small-Scale Mining Act of 1991, small-scale mining operations shall only be undertaken in declared People's Small-Scale Mining Areas or Minahang Bayan. As of 2016, 59 Minahang Bayan applications were endorsed to the Mines and Geosciences Bureau (MGB) Central Office for review and approval. Of these, 17 applications that have undergone initial

review were returned for further processing by the PMRBs in coordination with the applicants.

In 2015, available data indicated SSM produced 15 kilograms of gold valued at more than Php22.4 million. This is an increase of 88 percent from the nearly 8 kilograms produced in 2014 worth Php6.8 million. It is estimated, however, that a substantial volume of small scale gold production and sales are not monitored by the Provincial Mining and Regulatory Boards (PMRB) or the Bangko Sentral ng Pilipinas (BSP). While small-scale mining operations are prevalent in the region, pending Minahang Bayan applications have yet to be approved. The lengthy process to declare Minahang Bayan areas include the conduct of Free Prior and Informed Consent (FPIC) in ancestral domains, endorsement from the Sanggunian Bayan, consent from lot owners, permit holders or prior mining applicants.

## Disaster Risk Reduction and Management

The region is prone to disasters caused by extreme weather with 77 percent of the area considered at high to medium risk of landslides due to steep slopes. This vulnerability is mitigated with hazard maps provided local governments for guidance in their land use and development plans. All the geo-hazard maps at 1:50,000 scale for the six provinces have been completed as well as the geo-hazard maps for the 77 municipalities at 1:10,000 scale.

These geohazard maps are inputs to the Local Disaster Risk Reduction Management Plans (LDRRMPs) and Comprehensive Land Use Plans (CLUPs) prepared by LGUs. All municipalities have submitted their LDRRMPs while the CAR's six provinces have likewise submitted their DRRM plans that address disaster preparedness, mitigation and response. In addition, all the provinces have mainstreamed Disaster Risk Reduction and Climate Change Adaptation (DRR-CCA) into their Provincial Development and Physical

Framework Plans (PDPFPs) that includes the hazard profile of the province. Notwithstanding efforts on disaster prevention and mitigation, climate change has brought about extreme weather that caused increasingly extensive damages and losses in agriculture and infrastructure. In 2014, Php894 million in typhoon damages

and losses was recorded. This increased to Php2.3 billion estimated damages due to typhoon Ineng and Lando in 2015. The Post-Disaster Needs Assessment (PDNA) for typhoon Lawin in 2016, on the other hand, estimated more than Php6 billion in damages and losses.

## Challenges

### **Competing land uses and conflicts in resource use**

A central issue is balancing land use for production or agriculture with protection in line with the region's role as watershed cradle. The increasing needs of a growing population prompt the expansion of settlements and farms into forestlands. The resolution of this complex issue requires an integrated approach to promote sustainable agriculture, equity and security of land tenure, a sustainable ecosystem and disaster risk reduction. The multiple uses of the land also relate to water resources management as well as the utilization of forest and mineral resources.

Notwithstanding the gains of the NGP and continuing forest patrol and surveillance of forest rangers and anti-illegal logging task forces, encroachment into forest areas and timber poaching remains persistent as indicated by the confiscation of undocumented forest products, and the apprehension of chainsaws and vehicles used to transport illegally sourced forest products. The resulting degradation of forests due to expansion of farms, timber poaching and forest fires also result to loss of biodiversity with the destruction of wildlife habitats.

### **Constraints in improving land tenure**

The provision in Presidential Decree (PD) 705 that prohibits the alienation of lands with 18 percent slope and above limits alienable and disposable (A&D) lands to only 15 percent of the region's total land area. This provision is disadvantageous to the Cordillera considering the region's mountainous topography. Based on the Forestland Boundary Assessment and Delineation of the DENR-CAR, the A&D lands may be increased to 22-25 percent of total land area to reflect actual land use and consider land area expansion and development for the needs of the growing population. Even with an increase in A&D lands, the forest cover can still be maintained at the desired level of 60-40 forest to non-forest land use ratio.

### **Lack of incentives and mechanisms for providers of environmental services**

With 13 major river systems, the Cordillera hosts watersheds that provide water for domestic use, irrigation, industries and hydroelectric power generation not only in CAR but for adjacent regions. Existing policies and legislation, however, do not provide commensurate assistance to the local



government units and upland communities that protect and maintain the watersheds and rivers to ensure an adequate supply of clean water to downstream users. The conservation of forests and water sources also mitigate water pollution, flooding and the siltation of dams and irrigation facilities. As upland communities depend on agriculture for livelihood there is an increasing pressure to encroach into forestlands. Alternative sources of income that may include ecotourism or agri-tourism should then be provided residents of watershed or forest areas.

While there are ongoing environmental programs such as the Integrated Natural Resources and Environmental Management Program (INREM) along the Chico River and Forestland Management Project (FMP) that covers the Upper Magat and Cagayan River Basins, there is a need to provide for broader access to livelihood opportunities and ensure equitable sharing of benefits from the utilization of national wealth or the provision of environmental services.

#### **Environmental pollution due to poor waste management**

The low compliance of LGUs in the establishment of categorized sanitary landfills, materials recovery facilities, composting and segregation at source indicate the need to provide incentives from households to the garbage sorters, barangay and municipal personnel in implementing the provisions of the law. While enforcement and the imposition of penalties remain to be a tool in encouraging compliance, a stronger

motivation may be to provide mechanisms for cost recovery of the LGU in waste management operations and promoting entrepreneurship in the process at the household and barangay level.

Aside from the difficulty of LGUs to comply with the requirements of RA 9003, there is still a need to instill in households and communities the importance of segregating garbage and recycling. This will be an increasing concern as communities continue to urbanize and the environment particularly water resources are polluted.

#### **Improving Environmental Governance**

Lack of resources and technical expertise constrain LGUs and implementing agencies in the effective implementation of environmental laws. This is manifested in water, land and air pollution due to poor solid and liquid waste management, and unsustainable farming practices with excessive use of fertilizers and pesticides. Also affected are the region's watersheds and forests that are prone to the encroachment of farms and settlements. In terms of IP concerns, the lengthy process in the issuance of CADTs/CALTs, the formulation of the ADSDPPs and conduct of FPIC constrain development in IP areas.

Another concern is the need to improve regulation of small scale mining. While SSM provides livelihood or augments income from farming, hazardous SSM practices pose a risk to the health and safety of miners and affected communities. Thus, there is a need to strengthen the PMRBs and establish Minahang Bayan in

SSM areas for improved regulation and mitigate the industry's harmful effects.

## Strategic Framework

The strategic framework diagram for the environment sector shows the linkages of the sector, sub-sector and intermediate outcomes. The sector outcome of ecological integrity will be attained with the conservation of natural resources, improvement of environment quality and increased resilience of communities to natural disasters. Indicators for subsector

outcomes are forest cover, air, water quality standards, solid waste diversion and reduced casualties and losses due to natural calamities. Intermediate outcome indicators include area reforested, patents issued and area covered, protected areas maintained, air and water quality indicators.

## Targets

Table 20.1 presents the medium-term targets for the major outcomes of the environment sector. The region's natural resources shall be conserved and protected with increased forest cover, critical habitats protected and land tenure improved. Environmentally quality, on the other

hand, will be ensured with air and water quality maintained within standards and improvement of waste management systems. Increasing the resilience of communities to disasters is another target under disaster risk reduction and climate change adaptation.

**Table 20.1 Plan Targets to Ensure Ecological Integrity, Clean and Healthy Environment, 2017-2022**

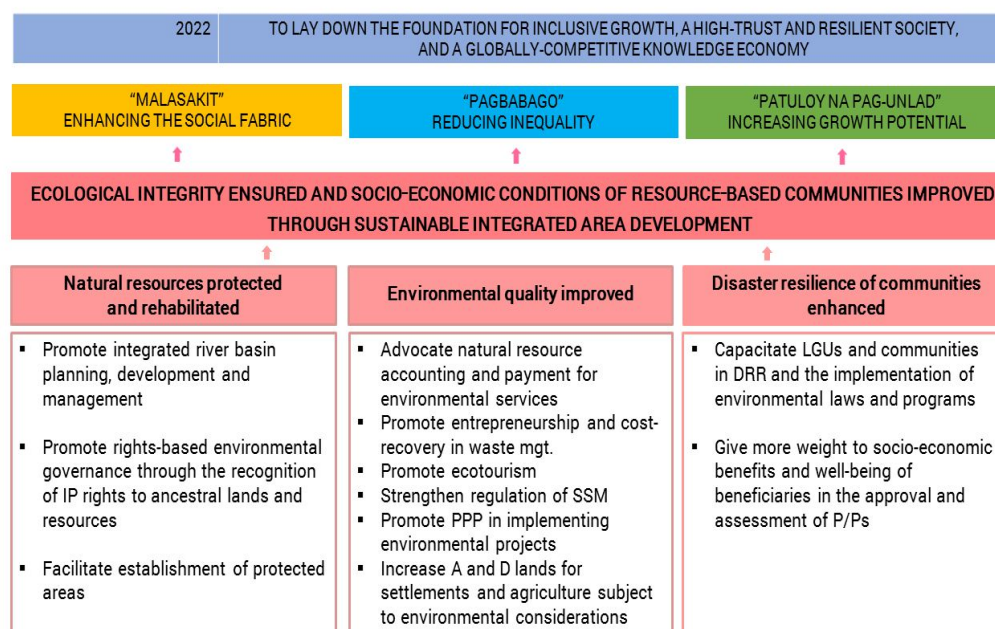
<i>Indicator</i>	<i>Baseline</i>		<i>End of Plan Target 2022</i>
<b>Sub-sector Outcome 1: Natural Resources Conserved, Protected and Rehabilitated</b>			
Forest Cover Increased (%)	2016	50	5 % increase
Area Reforested (hectares)	2015	17,746	86,577
Critical Habitats Protected (hectares)	2015	162,807	
Land Tenure Improved			
Patents Issued (number)	2015	2,915	11,275
Poverty reduced (project sites)	2012		2% decrease
<b>Sub-sector Outcome 2: Environmental Quality Improved</b>			
Water Quality Maintained within standards (TDS, TSS, BOD)	2016		30% decrease
Air Quality Maintained within standards (PM10, TSP)	2016		Good air quality index



LGUs Compliant to RA 9003 increased	2015	0	
LGUs using sanitary landfill (number)	2015	20	100
Barangays with MRFs (%)			
<b>Sub-sector Outcome 3: Disaster Resilience of Communities Enhanced</b>			
DRR-CCA Capabilities of LGUs enhanced	2016		100
LDRRMOs established (% LGUs)			

## Strategies

*Figure 20.2 Strategic Framework to Ensure Ecological Integrity, Clean and Healthy Environment, 2017-2022*



### Subsector Outcome 1: Natural resources protected and rehabilitated

**Promoting integrated river basin planning, development and management.** The Sustainable Integrated Area Development and Management (SIADM) approach aims to delineate protection, production and multiple land uses in forestlands considering carrying capacity, sustainable and optimum utilization of natural resources. It shall

pursue organizational and institutional development, convergence, linking and networking with all stakeholders in managing the watersheds. In CAR, three sub-watersheds were identified in the Chico River Basin and one in Mount Pulag National Park as pilot sites.

Within the River Basin, integrated area planning may also be adopted in the development of ancestral domains. This would require, however, more comprehensive consultations and technical

expertise in the preparation of the ADSDPP. The ADSDPP should also be integrated in local and sectoral development plans.

**Rights-based environmental governance and management.** As expounded in the policy paper “Declaration of Principles on Environmental Governance” (DPEG) adopted by the Regional Development Council – CAR, rights-based environmental governance entails the recognition of IP rights in resource use and management. A basic right is land ownership as recognized with the issuance of tenurial instruments. For indigenous peoples, the granting of CADTs is a formal recognition of the IP’s ownership over lands they have possessed for generations and covers rights over land, water and natural resources. As such, ancestral domains may cover areas proclaimed as reservations such as watersheds, national parks and protected areas. While the Indigenous People’s Rights Act (IPRA) of 1997 provides for the efficient and objective processing and issuance of CADTs and CALTs for the benefit of the IP claimants, the spirit of the law also provides for the responsibility of the IP community to preserve the environment for future generations and the general welfare. It is the responsibility of government and other stakeholders to assist the IPs in the sustainable management of their ancestral domains. Activities in support of the IP communities include:

- An efficient and transparent processing and issuance of CADTs/CALTs that gives justice to the valid claims of IPs. This

requires consultations with all stakeholders and the convergence of programs on land tenure improvement to avoid conflicts and overlapping of agency programs and mandates.

- Comprehensive consultations in the formulation of the Ancestral Domain Sustainable Development and Protection Plan (ADSDPP) that incorporates the development needs of the IP community with the sustainable management of their natural resources. The technical and consultative process of ADSDPP formulation should ensure the plan’s integration into local development plans and investment programs. In this way, identified programs and projects in the ADSDPP may be funded and implemented by the LGU or concerned government agency. Considering the ancestral domain in area planning will promote the complementation of development efforts.
- Efficient and transparent conduct of the Free Prior and Informed Consent (FPIC) that reflects the needs and aspirations of the IP community in managing their ancestral domain and utilizing their natural resources. The FPIC should be an avenue for partnership with other sectors in the sustainable management of the domain’s resources and the equitable sharing of benefits among members of the community.
- Adoption of Indigenous Knowledge, Systems and Practices (IKSP) that

support the sustainable management of natural resources. An example is the recognition of Sustainable, Traditional and Indigenous Forest Resources Management Systems and Practices (STIFMSP). This refers to the sustainable harvesting of trees and forest products in communal forests of IP communities. The approved STIFRMSP are the lapat of Bucloc in Abra, muyung of Asipulo in Ifugao, muyung of Bakun in Benguet, Batangan of Tadian, Besao, Sagada and Natonin in Mountain Province, and the imong of Tinglayan in Kalinga. Among these, the batangan of the four municipalities in Mountain Province and the imong of Tinglayan in Kalinga are ready for implementation with the issuance of municipal ordinances and supplemental guidelines. The recognition of other IKSP in resource management such as indigenous practices in the utilization of water resources may likewise be adopted as may be applicable.

**Amendment of laws and policies prejudicial to the region.** This includes the reclassification of lands already

developed for agriculture and settlements as A&D.

Based on the forestland boundary assessment and delineation of the DENR Regional Assessment Delineation Team (RADT), more than 119,100 hectares are proposed for reclassification as A&D lands. (Table 20.2) After review by the National Assessment and Delineation Committee (NADC), however, only 24,162 hectares were approved for reclassification as A&D. The reasons cited by the NADC for excluding most of the proposed areas for reclassification were the area's steep slopes, proclamations designating protected areas and the requirement for not less than 250 hectares for an isolated block.

In order to promote security of tenure and increase the A&D lands regionwide, a strategy may be to advocate for legislation based on the recommendations of the regional forestland assessment and delineation survey. Areas that are not hazard-prone may then be considered for reclassification to A&D based on actual use of lands that are already developed for agriculture, settlements and other uses.

**Table 20.2 Proposed Area for Reclassification as Alienable and Disposable, CAR -RADT**

Assessment/ Delineation	Total Land Area (Hectares)	Existing A&D (Hectares)	Proposed Additional A&D	Total A&D (Proposed)	% A&D to Total Land Area
Regional (RADT)	1,829,368	292,814.5	119,182.4	411,997.8	22.5
National (NADC)	1,829,368	292,468.5	24,161.82	316,630.3	17.3

Source: DENR CAR

## Subsector Outcome 2: Environmental quality improved

**Advocate for natural resource accounting and payment of environmental services (PES).** This entails supporting legislation to amend the definition of host communities that are eligible to share in the benefits of hydroelectric power generation to include communities and local government units protecting watersheds and the rivers providing water to the dams and power generating facilities. The legal framework should provide a comprehensive definition for the stewards of natural resources or for those protecting the environment to benefit from the improved welfare of society. In addition, institutionalizing mechanisms for payment of environmental services may be complemented by increasing financial benefits and providing direct remittance to LGUs providing such environmental services.

Related to initiatives on PES is the ongoing program on resource accounting for land and timber resources in the region. This study may be expanded to include water and mineral resources. The valuation of these resources may serve as bases for the cost of utilization and compensation for the protection of such resources.

**Promoting entrepreneurship and cost-recovery in solid waste management.** Incentives may be provided households to segregate garbage through the sale of recyclables and composting at the MRFs that may serve a cluster of communities. A review of the requirements for establishing sanitary landfills may be undertaken to facilitate compliance by LGUs considering

constraints of topography and financial capacity. Thus, recommendations to improve compliance to RA 9003 include (a) sustaining technical assistance to LGUs in the identification and establishment of sanitary landfills including fund sourcing; (b) the clustering of LGUs that may be served by a common landfill; (c) intensifying IEC on waste segregation, recycling and composting; and (d) promoting entrepreneurship in the recycling and composting of wastes.

**Regulation of small scale mining to promote safety, mitigate environmental damage and optimize economic benefits.** The PMRBs shall be strengthened and the establishment of Minahang Bayan or People's Small-Scale Mining Areas facilitated to ensure small scale miners comply with the requirements of RA 7076. With the establishment of Minahang Bayan, programs on mine waste and pollution management, safety and health protection measures may be implemented for the benefit of the small scale miners and their families as well as local communities.

**Establishment of Protected Areas that conserve habitats for the preservation of biodiversity.** The multi-use of our forests and protected areas, however, presents the challenge on how to balance the protection of biodiversity-rich areas with their use for agricultural production, settlements, recreation or ecotourism. Areas strictly for protection should be maintained in their natural state as scientific reserves to preserve genetic resources or partially protected to also be a source for livelihood or education and cultural purposes. Thus, more than 32,600 hectares were proposed

for delineation as protected areas including wildlife sanctuaries and cave ecosystems.

**In relation to the management of protected areas, the promotion of eco-tourism sites should consider carrying capacity and the regulation of infrastructure development to minimize adverse impacts to the environment.** The participation of the private sector, however, may be considered in development projects as well as conservation programs in partnership with LGUs and communities.

### Subsector Outcome 3: Disaster resilience of communities enhanced

**Capacitating LGUs and other stakeholders on environmental governance** to include the following:

- a. The crafting and enforcement of local ordinances to implement provisions of environmental laws.
- b. The implementation of environment and natural resources (ENR) programs and activities (emission inventory, water quality sampling, solid waste management, land management, forest management, mining regulations). Monitoring of the enforcement of ENR laws and regulations.
- c. Planning and implementation of DRR-CCA programs.
- d. Fostering public-private partnerships to finance and implement environmental projects.

## Legislative Agenda

**Table 20.3 Legislative Agenda to Ensure Ecological Integrity, Clean and Healthy Environment**

Agenda	Rationale
<p>Redefine the term “Host Community” as found in the Local Government Code of 1991 (RA 7160), the Department of Energy Act of 1992 (RA 7638) and the Electric Power Industry Reform Act (EPIRA) of 2001 (RA 9136) to include upland or upstream communities and Local Government Units that are protecting and maintaining the watersheds of hydroelectric power generating facilities and multi-purpose dams.</p> <p>Increase the financial benefits of host communities and LGUs from the Development and Livelihood Funds of the LGC of 1991 (RA 7160) and EPIRA of 2001 (RA 9136). The value of the P 0.01/KwH of electricity sales per Energy Regulation No. 1-94 to fund electrification, livelihood and environmental projects should be regularly adjusted for inflation. The DOE should regularly adjust this value based on the appropriate Consumer Price Index (CPI) or maintain its value at 0.05% of the effective power selling rate per KwH when ER No. 1-94 was issued in 1994.</p>	<p>The institutionalization of mechanisms and adoption of policies for the payment of environmental services (PES) shall ensure the sustainable management of the region’s forests and water resources. PES shall serve as incentive or source of income for communities and local government units in the rehabilitation and protection of watersheds.</p>
<p>Amend the provision of PD 705 that restricts the classification of lands with more than 18% slope as alienable and disposable.</p>	<p>This provision is disadvantageous to the region with its mountainous topography. Lands that are developed for agriculture and settlements should be released for titling as long as they are not in environmentally critical or hazardous areas. Improving land tenure security is considered a factor for farmers to improve productivity.</p>

The institutionalization of River Basin Management Councils or establishment of River Basin Development Authorities.	<p>The practice of the “ridge to reef” concept of natural resources management and Sustainable Integrated Area Development and Management (SIADM) approach would require an institution or organization to sustainably implement programs.</p> <p>The unique characteristics of the watersheds and river basins in the Cordillera as headwaters characterized by mountainous terrain and semi-temperate climate should be delineated from that of lowland regions.</p>





PART VII

# **FROM PLAN TO ACTION**





# 21

## Plan Implementation and Monitoring



# Plan Implementation and Monitoring and Evaluation

## Plan Implementation

The CAR Regional Development Plan (RDP) 2017-2022 was approved and adopted by the Regional Development Council (RDC) in April 2017. As the highest policy-making body in the region and serving as the counterpart of the NEDA Board at the regional level, the RDC shall primarily be responsible for coordinating the implementation of the CAR RDP 2017-2022 through the various members of the Sectoral Development Committees (SeComs) and Support Committees (SuComs) that includes local government units, regional line agencies, state universities and colleges, private sector representatives and other civil society organizations.

The CAR RDP 2017-2022 shall have as accompanying document the CAR Regional Development Investment Program (RDIP) 2017-2022 that will contain the region's priority programs and projects supporting Plan implementation.

Pursuant to DILG-NEDA-DBM-DOF Joint Memorandum Circular No. 1, series of 2007 or "Guidelines on the Harmonization of Local Planning, Investment Programming, Revenue Administration, Budgeting and

Expenditure Management," all local government units shall, to the extent possible, align/harmonize their local plans with "national development goals taking into consideration their resource endowments, financial capability and distinct development needs." As such, all LGUs are expected to align their development priorities to the PDP 2017-2022. This shall also be guided by the Local Government Units Public Financial Management Reform Program and Implementation Strategy adopted through DBM-DILG-DOF-NEDA Joint Memorandum Circular No. 1, series of 2015 or the "Adoption of the Local Government Units Public Financial Management Reform Roadmap and Implementation Strategy." Specifically, in improving service delivery, LGUs are expected to align their local development priorities to national and regional priorities outlined in the PDP and RDPs and improve the link between planning-investment programming-budgeting-monitoring and evaluation. In this regard, LGUs shall be assessed through the Public Financial Management Assessment Tool (PFMAT) in carrying out financial management reforms in their localities.

<sup>11</sup>For more details, refer to the Local Government Units Public Financial Management Roadmap developed by the European Union (EU) funded Project, "Support to the Local Government Units for More Effective and Accountable Public Financial Management (LGU PFM2 Project)".

## Plan Monitoring

The CAR RDP 2017-2022 shall be monitored through the Results Matrices (RM). The RM is anchored on results-based management (RbM), a strategy focusing on performance that highlights the achievement of results at different levels: outputs, outcomes and impacts. The preparation of the RM is to shift focus from mere inputs and outputs in the implementation of programs and projects to the more important results or outcomes in achieving or advancing regional development goals, objectives and targets. The results or outcomes of development interventions shall be the basis for assessment and improvement, reconfiguration or even change in the implementation of policies/strategies and programs/projects and supports public expenditure management reforms being implemented by national government.

The RM contains statements of the results to be achieved (goals and outcomes) with corresponding indicators, baseline information, annual and end-of-Plan targets and responsible agencies tasked to deliver the results. It provides an indicator framework to the statement of goals, outcomes, and assumptions and risks which would allow for subsequent assessment and performance measurements. The RM indicators serve as a guide in the planning, programming and budgeting of implementing and oversight agencies, as well as enable the monitoring and evaluation of progress of Plan implementation.<sup>2/</sup>

The RM shall guide the programming and budgeting process of implementing and oversight agencies. As a guide to the programming process, the RM shall be used as the basic framework in identifying and updating the priority programs and projects under the Public Investment Program (PIP)/RDIP 2017-2022. The PIP/RDIP shall serve as the primary medium-term investment instrument of government in achieving the end-of-Plan target outcomes in the PDP/RDP and RM. It defines how the government intends to deliver the RM outcomes in terms of projects and programs. Thus, it is important for agencies to draw their Annual Investment Program (AIP) with a clear grasp of the results chain and the theory of change behind each of their AIP programs/projects, elucidate the same in their respective AIPs, regularly validate them, redesign programs/projects if needed to ensure that programs/projects reflect valid strategies that collectively lead to the achievement of desired outcomes specified in the RM.<sup>2/</sup>

An annual assessment of Plan implementation shall be prepared by the RDC through its SeComs and SuComs through the Annual Regional Development Report (ARDR). A mid-term assessment shall also be prepared after three years of Plan implementation. In addition, regular project monitoring activities shall be conducted through the Regional Project Monitoring Committee (RPMC) and the quarterly preparation of Regional Project Monitoring and Evaluation System (RPMES) reports.

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<sup>2/</sup>*Guidelines in the Preparation of Results Matrix of the PDP 2017-2022.*

# List of Acronyms

4Ps	Pantawid Pamilyang Pilipino Program
A&D	Alienable and Disposable
A&E	Accreditation and Equivalency
ACO	Accredited Consumer Organization
AD	Ancestral Domain
ADR	Alternative Dispute Resolution
ADSDPP	Ancestral Domain Sustainable Development and Protection Plan
AFF	Agriculture, Forestry and Fishing
AFP	Armed Forces of the Philippines
AGT	Automated Guideway Transit
AHYD	Adolescent Health and Youth Development
AIC	Assistance to Individuals in Crisis Situation
AIP	Annual Investment Program
ALS	Alternative Learning System
AMCR	Average Monthly Crime Rate
AMICR	Average Monthly Index Crime Rate
APJR	Action Program for Judicial Reform
ARDR	Annual Regional Development Report
ARMM	Autonomous Region of Muslim Mindanao
ARTA	Anti-Red Tape Act
ARTA-RCS	Anti-Red Tape Act-Report Card Survey
ASEAN	Association of Southeast Asian Nations
ASFR	Age-Specific Fertility Rate
ATI	Agricultural Training Institute
AY	Academic Year
BADAC	Barangay Anti-Drug Addiction Committee
BAFS	Bureau of Agriculture and Fisheries Standards
BB-PICAG	Baguio-Benguet Public Civic Action Group
BCEZ	Baguio City Economic Zone
BCPO	Baguio City Police Office

BFAR	Bureau of Fisheries and Aquatic Resources
BGHMC	Baguio General Hospital and Medical Center
BIR	Bureau of Internal Revenue
BJMP	Bureau of Jail Management and Penology
BLE	Bureau of Labor Employment
BLISTT	Baguio-La Trinidad-Itogon-Tuba-Tublay
BNS	Barangay Nutrition Scholars
BOC	Bureau of Customs
BOT	Build-Operate-Transfer
BPLS	Business Permits and Licensing Systems
BPO	Business Process Outsourcing
BPS	Bureau of Product Standards
BSP	Bangko Sentral ng Pilipinas
BSU	Benguet State University
CA	Creative Arts
CAA	Conflict-Affected Areas
CADT	Certificate of Ancestral Domain Title
CALABARZON	Cavite-Laguna-Batangas-Rizal-Quezon
CALT	Certificate of Ancestral Land Title
CAR	Cordillera Administrative Region
CBA-CPLA	Cordillera Bodong Administration-Cordillera People's Liberation Army
CBD	Central Business District
CBEP	Community-Based Employment Program
CCA	Climate Change Adaptation
CCP	Cultural Center of the Philippines
CCT	Conditional Cash Transfer
CCTV	Closed-Circuit Television
CDRRMC	Cordillera Regional Disaster Risk Reduction and Management Committee
CEST	Community Empowerment Through Science and Technology
CHARMP2	Second Cordillera Highland Agricultural Resource Management Project
CHED	Commission on Higher Education



CHR	Commission on Human Rights
CIERDEC	Cordillera Industry and Energy Research and Development Consortium
CIPC	Committee on Indigenous Peoples Concerns
CIS	Communal Irrigation System
CLOA	Certificate of Land Ownership Award
CLUP	Comprehensive Land Use Plan
CMCI	Cities Municipalities Competitiveness Index
CMTS	Cellular Mobile Telephone Service
CNC	Computer Numerically Controlled
CNO	Certification of Non-Overlap
CoC	Certificate of Public Convenience
COD	Center of Development
COE	Center of Excellence
CP	Certificate Preconditions
CPI	Consumer Price Index
CPO	City Prosecutor's Office
CPR	Contraceptive Prevalence Rate
CRDAC	Cordillera Regional Delineation Assessment Committee
CRHRDC	Cordillera Regional Health Research and Development Consortium
CRIP	Cordillera Roads Improvement Project
CRK	Clark International Airport
CSAP	Core Shelter Assistance Program
CSC	Civil Service Commission
CSE	Crime Solution Efficiency
CSITE	Cordillera State Institute of Technical Education
CSO	Civil Society Organization
CVA	Conflict-Vulnerable Areas
CWD	Consumer Welfare Desk
DA	Department of Agriculture
DATRC	Drug Abuse Treatment and Rehabilitation Center
DBM	Department of Budget and Management

DENR	Department of Environment and Natural Resources
DepEd	Department of Education
DHUD	Department of Housing and Urban Development
DICT	Department of Information and Communication Technology
DILG	Department of the Interior and Local Government
DMT	Dry Metric Tons
DO	Department Order
DOE	Department of Energy
DOF	Department of Finance
DOH	Department of Health
DOJ	Department of Justice
DOLE	Department of Labor and Employment
DOST	Department of Science and Technology
DOT	Department of Tourism
DPEG	Declaration of Principles on Environmental Governance
DPWH	Department of Public Works and Highways
DRR	Disaster Risk Reduction
DRR/CCA	Disaster Risk Reduction/Climate Change Adaptation
DRRM	Disaster Risk Reduction and Management
DRRMO	Disaster Risk Reduction and Management Officer
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
DTL	Drug Testing Laboratories
EMS	Emergency Management System
ENR	Environment and Natural Resources
EO	Executive Order
EPIRA	Electric Power Industry Reform Act
ESAP	Emergency Shelter Assistance Program
EU	European Union
FAO	Food and Agriculture Organization
FDA	Food and Drug Administration
FHONA	Family Head and Other Needy Adults

FMP	Forestland Management Project
FMR	Farm to Market Road
FPIC	Free Prior and Informed Consent
FTLs	Fair Trade Laws
GAHP	Good Animal Husbandry Practices
GAMABA	Gawad sa Manlilikha ng Bayan
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GI	Geographical Indication
GIDA	Geographically Isolated and Disadvantaged Areas
GMP	Good Manufacturing Practices
GPH	Government of the Philippines
GRDP	Gross Regional Domestic Product
GVA	Gross Value Added
HAARRDEC	Highland Agriculture Aquatic Resources Research and Development Consortium
HB	House Bill
HEDCOR	Hydro-electric Development Corporation
HEI	Higher Education Institution
HITS	Hi-Impact Technology Solutions
HIV-AIDS	Human Immunodeficiency Virus-Acquired Immunodeficiency Syndrome
HLURB	Housing and Land Use Regulatory Board
HOA	Home Owners Association
HOMA	Housing Materials Assistance
HPP	Hydroelectric Power Plant
HR	Human Rights
HRD	Human Resource Development
HRMO	Human Resource Management Officer
HUC	Highly Urbanized City
HUDCC	Housing and Urban Development Coordinating Council
HVC	High-Value Crops
IBP	Integrated Bar of the Philippines

ICC	Indigenous Cultural Communities
ICS	Incident Command Systems
ICT	Information and Communication Technology
IEC	Information and Education Campaign
IHRL	International Humanitarian Rights Law
IKSP	Indigenous Knowledge, Systems and Practices
IKSPS	Indigenous Knowledge, Systems, Practices and Spiritualities
INREM	Integrated Natural Resources and Environmental Management
IP	Intellectual Property
IP	Indigenous Peoples
IPEd	Indigenous Peoples' Education
IPMR	Indigenous People Mandatory Representative
IPO	Intellectual Property Office
IPO	Indigenous Peoples Organizations
IPRA	Indigenous Peoples' Rights Act
IRA	Internal Revenue Allotment
IRI	International Roughness Index
IRR	Implementing Rules and Regulations
IT	Information and Technology
ITPPGS	Integrated Transformation Program Performance Governance System
KALAHICIDSS-NCDDP	Kapit-Bisig Laban sa Kahirapan Comprehensive and Integrated Delivery of Social Services-National Community-Driven Development Program
KASC	Kalinga Apayao State College
KM	Kilometers
KSU	Kalinga State University
LACAP	Local Anti-Criminality Action Plan
LAMS	Land Administration and Management System
LDP	Local Development Plan
LDRMP	Local Disaster Risk Reduction and Management Plan
LERPR	Licensure Examination Regional Passing Rate
LGU	Local Government Unit

LHB	Local Housing Board
LIIC	Local Investments and Incentives Code
LPCC	Local Price Coordinating Council
LRA	Land Registration Authority
LRMDS	Learning Resource Management and Development System
LSP	Local Shelter Plan
LT	Lupong Tagapamayapa
LTCP	Land Titling Computerization Project
LTFRB	Land Transportation and Franchising Regulatory Board
LTV	Long-Term Vision
MCC	Millenium Challenge Corporation
MCP	Maternity Care Package
MDG	Millenium Development Goals
MDRRMP	Municipal Disaster Risk Reduction and Management Plans
MGB	Mines and Geosciences Bureau
MOA	Memorandum of Agreement
MRA	Mutual Recognition Agreement
MRF	Materials Recovery Facility
MRP	Manufacturing Resurgence Program
MSMEs	Micro, Small and Medium Enterprises
MT	Metric Tons
MTB-MLE	Mother Tongue-Based-Multilingual Education
MW	Megawatt
NADC	National Assessment and Delineation Committee
NAPOLCOM	National Police Commission
NAPROSS	National Prosecution Services and the State Counsels
NAT	National Achievement Test
NC	National Certificate
NCCA	National Commission on Culture and the Arts
NCD	Non-Communicable Diseases
NCIP	National Commission on Indigenous Peoples
NCR	National Capital Region

NDHS	National Demographic and Health Survey
NDRRMC	National Disaster Risk Reduction and Management Council
NEA	National Electrification Administration
NEDA	National Economic and Development Authority
NGP	National Greening Program
NHA	National Housing Authority
NHIP	National Health Insurance Program
NHTS-PR	National Household Targeting System-Poverty Reduction
NIA	National Irrigation Administration
NIS	National Irrigation System
NNC	National Nutrition Council
NOH	National Objectives for Health
NPA	New People's Army
NTTC	National TVET Trainer Certificate
OCC	Office of the Clerk of Court
OFC	OFW Family Circle
OFW	Overseas Filipino Worker
OPAPP	Office of the Presidential Adviser on the Peace Process
OSH	Occupational Safety and Health
OWWA	Overseas Workers Welfare Administration
PAMANA	Payapa at Masaganang Pamayanan
PCR	Police-Community Relations
PD	Presidential Decree
PDEA	Philippine Drug Enforcement Agency
PDNA	Post-Disaster Needs Assessment
PDP	Philippine Development Plan
PDPFP	Provincial Development and Physical Framework Plan
PDTP	Philippine Defense Transformation Program
PES	Payment of Environmental Services
PESFA	Private Education Student Financial Assistance
PESO	Public Employment Services Office
PEZA	Philippine Economic Zone Authority

PFM	Public Financial Management
PFMAT	Public Financial Management Assessment Tool
PHF	Post-Harvest Facility
PHILJA	Philippine Judicial Academy
PIDS	Philippine Institute of Development Studies
PIP	Public Investment Program
PLDT	Philippine Long Distance Telephone
PMC	Philippine Mediation Center
PMRB	Provincial Mining Regulatory Board
PMRB	Provincial Mining Regulatory Board
PNP	Philippine National Police
POPDEV	Population and Development
PPA	Parole and Probation Administration
PPP	Public-Private Partnership
PQF	Philippine Qualifications Framework
PRA	Philippine Retirement Authority
PRDP	Philippine Rural Development Project
PRIME	Philippines' Response to Indigenous Peoples' and Muslim Education
PRIME-HRM	Program to Institutionalize Meritocracy and Excellence in Human Resource Management
PRO-COR	Police Regional Office-Cordillera
PSA	Philippine Statistical Authority
PSHS	Philippine Science High School
PWD	Person With Disability
R&D	Research and Development
RA	Republic Act
RADT	Regional Assessment Delineation Team
RAPID	Resources for the Awareness of Population Impacts to Development
RbM	Results-Based Management
RCC	Regional Competitiveness Committee
RDC	Regional Development Council
RDIP	Regional Development Investment Program

REDP	Regional Education Development Plan
RH	Reproductive Health
RLA	Regional Line Agency
RM	Results Matrix
RNET	Regional Nutrition Evaluation Team
ROS	Research Outreach Stations
RPL	Revised Penal Code
RPMC	Regional Project Monitoring Committee
RPMES	Regional Project Monitoring Evaluation System
RPOC	Regional Peace and Order Council
RPRH	Responsible Parenthood and Reproductive Health
RRPTP	Recovery and Reintegration Program for Trafficked Persons
RSTL	Regional Standards and Testing Laboratories
RTC	Regional Trial Court
S&T	Science and Technology
SAAD	Special Area for Agricultural Development
SDA	Sustainable Development Agenda
SDGs	Sustainable Development Goals
SEC	Securities and Exchange Commission
SEP	Sitio Electrification Program
SETUP	Small Enterprise Technology Upgrading Program
SGLG	Seal of Good Local Governance
SIADM	Sustainable Integrated Area Development and Management
SITREP	Situational Report
SLP	Sustainable Livelihood Program
SLT	School of Living Tradition
SLU	Saint Louis University
SPMS	Strategic Performance Management System
SSM	Small-Scale Mining
SSS	Social Security System
STI	Sexually Transmitted Infection



STIFRMSP	Sustainable, Traditional and Indigenous Forest Resources Management Systems and Practices
STY	Supertyphoon
SWD	Social Welfare and Development
SWM	Solid Waste Management
SY	School Year
TAPI	Technology Applications and Promotions Institute
TCT	Transfer Certificate Title
TFR	Total Fertility Rate
TPLEX	Tarlac-Pangasinan-La Union Expressway
TRO	Temporary Restraining Order
TVET	Technical Vocational Education and Training
TVI	Technical Vocational Institution
TWG	Technical Working Group
TWSP	Training for Work Scholarship Program
UB	University of Baguio
UC	University of the Cordilleras
UI	Unemployment Insurance
UNESCO	United Nations Educational, Scientific and Cultural Organization
UniFAST	Unified Student Financial Assistance System for Tertiary Education
US	United States
VPA	Volunteer Probation Aide
WB	World Bank
WCD	Women and Children's Desk
WHO	World Health Organization
WQMA	Water Quality Management Areas
YAFSS	Young Adult Fertility and Sexuality Survey



# OFFICERS AND MEMBERS OF THE REGIONAL DEVELOPMENT COUNCIL - CORDILLERA ADMINISTRATIVE REGION 2017-2019

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Industry-CAR

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Cordillera Private Technical-Vocational  
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Office of Civil Defense

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Arts

**Dir. Romel P. Dagumol**  
Commission on Human Rights

# List of Regional Planning Committee Members

## Committee on Indigenous Peoples Concerns

**Chair:** National Commission on Indigenous Peoples

**Co-Chair:** Igorota Foundation

**Vice-Chair:** Department of Education

**Members:**

Commission on Higher Education

Commission on Human Rights

Department of Agriculture

Department of Agrarian Reform

Department of Environment and Natural Resources

Department of Interior and Local Government

Department of Labor and Employment

Department of Tourism

Department of Social Welfare and Development

Department of Trade and Industry

National Economic and Development Authority

National Irrigation Administration

Philippine Information Agency

Philippine Statistics Authority

Technical Education and Skills Development Authority

Abra State Institute of Science & Technology

Apayao State College

Benguet State University  
Easter College  
Ifugao State University  
Kalinga-Apayao State College  
Mountain Province State Polytechnic College  
Saint Louis University  
University of Baguio  
University of the Cordilleras  
University of the Philippines Baguio  
University of the Philippines-Cordillera Studies Center  
Shontoug Foundation  
Indigenous People's International Center for Policy Research and Education  
(TEBTEBBA)  
Kalinga Bodong Council  
Cordillera Rural Electric Cooperatives Association (CRECA)  
Indigenous Peoples Education for Art, Culture and Empowerment (IPEACE, Inc.)  
Peaceful Environment for the Advance of Communities and Education (PEACE)  
Igorota Foundation  
Provincial IPMRs  
Provincial IPMRs President

## Development Administration Committee

**Chair:** Department of Interior and Local Government

**Co-Chair:** Peoples Organization for Social Transformation Development Network, Inc. (POST)

**Vice-Chair:** Department of Budget and Management

**Members:**

Baguio City Mayor

Bureau of Internal Revenue

Bureau of Local Government Finance

Commission on Human Rights

Civil Service Commission

Department of Justice

Government Service Insurance System

Home Development Mutual Fund

National Police Commission

National Bureau of Investigation

National Economic and Development Authority

National Intelligence Coordinating Agency

Office of Civil Defense

Parole and Probation Administration

Philippine Statistics Authority

Philippine Information Agency

Police Regional Office-Cordillera

Professional Regulation Commission

Philippine Drug Enforcement Agency

Kalinga Bodong Administration

Council for the Restoration of Filipino Values (CRFV)



## Regional Social Development Committee

**Chair:** Department of Social Welfare and Development

**Co-Chair:** Cordillera Administrative Region Cooperative Union (CARCU)

**Vice-Chair:** Department of Health

**Members:**

Commission on Higher Education

Commission on Human Rights

Department of Agrarian Reform

Department of Environment and Natural Resources

Department of Education

Department of Interior and Local Government

Department of Labor and Employment

Housing and Land Use Regulatory Board

Housing and Urban Development Coordinating Council

National Economic and Development Authority

National Nutrition Commission

National Youth Commission

Philippine Health Insurance Corporation

Philippine Information Agency

Commission on Population

Professional Regulation Commission

Philippine Statistics Authority

Technical Education and Skills Development Authority

Baguio Center for Young Adults (BCYA)

Filipino-Japanese Foundation of Northern Luzon, Inc. (FJFNLI)

Hope for Parents of Children with Disabilities (HPCD)

Cordillera Community and Family Assistance for Progress, Inc. (CCFAPI)

## Economic Development Committee

**Chair:** Department of Trade and Industry

**Co-Chair:** Northern Luzon Federation of Cooperatives and Development Center

**Vice-Chair:** Department of Science and Technology

**Members:**

Bureau of Fisheries and Aquatic Resources

Cooperative Development Authority

Department of Agriculture

DA- Cordillera Highland Agricultural Resource Management Project

Department of Agrarian Reform

Department of Environment and Natural Resources

DENR-Environmental Management Bureau (EMB)

DENR-Ecosystem Research and Development Service (ERDS)

DENR-Forest Management Bureau (FMB)

DENR-Land Management Service (LMS)

DENR-Mines and Geosciences Bureau (MGB)

DENR- Protected Areas, Wildlife and Coastal Zone Management Services  
(PAWCZMS)

Department of Education

Department of Information and Communications Technology

Department of Interior and Local Government

Department of Labor and Employment

Department of Tourism

Department of Social Welfare and Development

National Commission on Indigenous Peoples

National Economic and Development Authority

Philippine Economic Zone Authority

Philippine Information Agency

Philippine Statistics Authority

Technical Education and Skills Development Authority

Agricultural Training Institute

Agriculture and Fishery Council Foundation of the Philippines (AFCPI)  
Alay sa Kapatid Foundation (AKAP)  
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Baguio-Benguet Public Information Civic Action Group (BB-PICAG)  
Benguet State University  
Camp John Hay Management Corporation (CJHMC)  
Cordillera Rural Electric Cooperatives Association (CRECA)  
Highland Agriculture and Resources Research and Development Consortium  
(HARRDEC)  
Indigenous Peoples Education for Art, Culture and Empowerment (IPEACE, Inc.)  
Shontoug Foundation

## Infrastructure Development Committee

**Chair:** Department of Public Works and Highways

**Co-Chair:** Concerned Citizens of Abra for Good Governance (CCAGG)

**Vice-Chair:** Department of Agrarian Reform

**Members:**

Civil Aviation Authority of the Philippines- Baguio

Department of Agriculture

Department of Budget and Management

Department of Environment and Natural Resources

Department of Information and Communications Technology

Department of Energy

Department of Transportation

Housing and Land Use Regulatory Board

National Electrification Administration

National Economic and Development Authority

National Irrigation Administration

National Telecommunications Commission

Philippine Postal Commission

Baguio Water District

Benguet Electric Cooperative

Benguet State University

Local Water Utilities Administration

National Power Corporation

Mayor, Baguio City

Mayor, Bangued, Abra

Mayor, Kabugao, Apayao

Mayor, La Trinidad, Benguet

Mayor, Lagawe, Ifugao  
Mayor, Tabuk City, Kalinga  
Mayor, Bontoc, Mountain Province  
Mayor, La Paz, Abra  
Mayor, Calanasan, Apayao  
Mayor, Mankayan, Benguet  
Mayor, Banaue, Ifugao  
Mayor, Pasil, Kalinga  
Mayor, Sabangan, Mountain Province

## Watershed and Environmental Management Committee

**Chair:** Department of Environment and Natural Resources

**Co-Chair:** Shontoug Foundation

**Vice-Chair:** DENR-EMB

**Members:**

Department of Agrarian Reform

Department of Agriculture

DENR-Forest Management Bureau (FMB)

DENR-Land Management Service (LMS)

DENR-Mines and Geosciences Bureau (MGB)

Department of Interior and Local Government

Department of Tourism

National Commission on Indigenous Peoples

National Economic and Development Authority

National Irrigation Administration

Philippine Information Agency

Philippine Statistics Authority

Mayor, Baguio City

Baguio Water District

Benguet State University

Cordillera Green Network (CGN)

Cordillera Rural Electric Cooperatives Association (CRECA)

Hydro-electric Development Corporation, Inc. (Hedcor, Inc.)

Indigenous Peoples Education for Art, Culture and Empowerment (IPEACE, Inc.)

Jaime V. Ongpin Foundation, Inc. (JVOFI)

Peaceful Environment for the Advance of Communities and Education (PEACE)

Peoples Organization for Social Transformation Development Network, Inc. (POST)

Philippine Society of Sanitary Engineers (PSSE)

University of the Philippines-Cordillera Studies Center



REPUBLIC OF THE PHILIPPINES  
**REGIONAL DEVELOPMENT COUNCIL**  
CORDILLERA ADMINISTRATIVE REGION

NEDA-CAR Compound, Botanical Garden, Leonard Wood Road, 2600 Baguio City  
Tel./Fax No. (074) 442-3232 \*\*\* Email: car@neda.gov.ph

*Excerpts from the minutes of meeting of the RDC-CAR held on April 7, 2017 in Bontoc, Mountain Province*

**RDC-CAR Resolution No. 06**  
Series of 2017

**Adopting The Cordillera Regional Development Plan 2017-2022**

**WHEREAS**, Memorandum Circular No. 12 issued by Malacañang on October 24, 2016 directs the formulation of the Philippine Development Plan, Public Investment Program and Regional Development Plans/Investment Programs for the period 2017-2022;

**WHEREAS**, Executive Order No. 5 series of 2016 adopted the *AmBisyon Natin 2040*, the 25-year long term vision for the Philippines, to wit: "By 2040, the Philippines will be a prosperous, predominantly middle-class society where no one is poor, our people will live long and healthy lives, be smart and innovative, and will live in a high-trust society";

**WHEREAS**, the NEDA Board approved the Philippine Development Plan 2017-2022 during its meeting on February 20, 2017;

**WHEREAS**, the Philippine Development Plan 2017-2022 takes off from the Duterte Administration's 0+10 Socioeconomic Agenda and is the first medium-term plan anchored on *AmBisyon Natin 2040*; it aims to lay a stronger foundation for inclusive growth, a high-trust and resilient society, and a globally-competitive economy toward realizing the national long term vision for the country;

**WHEREAS**, the Regional Development Councils are tasked to prepare their parallel Regional Development Plans 2017-2022 aligning regional development directions with national development directions and priorities;

**WHEREAS**, major consultations were undertaken in the drafting of the Cordillera Regional Development Plan 2017-2022 including the following: provincial consultations on the updating of the Regional Physical Framework Plan (RPFP), the Regional Development Plan (RDP) and the Regional Development Investment Program (RDIP) from June 7-July 28, 2016; regional launching of *AmBisyon Natin 2040* on November 15, 2016, consultation on the Draft PDP 2017-2022 on November 23, 2016, and consultation on the Draft RDP 2017-2022 on January 9, 2017; and presentation of draft chapter write-ups to the different Sectoral Committees of the RDC from February 7-22, 2017 and the proposed regional spatial strategy to the Regional Land Use Committee on March 7, 2017.

**WHEREAS**, the Cordillera Regional Development Plan 2017-2022 shall be the blueprint for the development of the region for the next six years and shall guide the development efforts of all government agencies, local government units, the private sector and civil society organizations operating in the region;

**WHEREAS**, the RDC Executive Committee endorsed the approval and adoption of the Cordillera Regional Development Plan 2017-2022 in its March 15, 2017 meeting pending integration of additional comments and inputs;



The **round metal gong** of the Cordillera known locally as "**gangsa**" is a symbol of the upland people's culture that has been passed on from generations to another.

The **profile of a person blowing a "tangguyob"** represents a community being called for an important matter or action. The **lines that shape the mountains, the rice terraces, clouds and rivers** symbolize the connectivity and flow of human interaction in a geographic area such as the Cordillera.

**All the symbols combined** represent unity and harmony of the people with culture and environment in beating the gong for self-determination.



**NOW THEREFORE RESOLVED, AS IT IS HEREBY RESOLVED,** that the Regional Development Council hereby adopts the Cordillera Regional Development Plan 2017-2022 as the overall guide for regional development efforts and actions in the next six years;

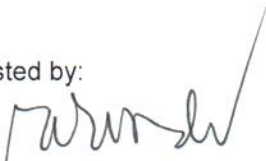
**APPROVED**, this 7<sup>th</sup> day of April 2017 in Bontoc, Mountain Province, Philippines.

Certified true and correct:



**JEDIDIA L. AQUINO**  
Secretary, RDC-CAR  
(Assistant Regional Director, NEDA-CAR)

Attested by:



**MILAGROS A. RIMANDO**  
Vice Chairperson, RDC-CAR  
(Regional Director, NEDA-CAR)

Approved:



**MAURICIO G. DOMOGAN**  
Chairperson, RDC-CAR  
(Mayor, Baguio City)







# **REGIONAL DEVELOPMENT PLAN 2017-2022**

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