Cordillera Administrative Region (CAR)

Asset Accounts for Land Resources: 1999–2018

System of Environmental – Economic Accounting 2012
Central Framework

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Ambanaw Paoay, Mt. Ulap 1st Peak
Ampucao, Itogon, Benguet, Philippines

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System of Environmental - Economic Accounting 2012 Central Framework

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Foreword

The Philippine Economic-Environmental and Natural Resources Accounting (PEENRA) System of the Philippine Statistics Authority (PSA) serves as a valuable tool to assess and monitor the state of natural resources and the impacts of human and economic activities to the environment.

The PEENRA was piloted in the Cordillera Administrative Region (CAR) with accounts covering four resources including asset accounts for land encompassing an eight-year period from 1990 to 1998. With the initiative of Regional Statistical Services Office (RSSO) CAR to compile and further develop the environmental accounts of the region, the CAR Asset Accounts for Land covering the period 1999-2015 was prepared following the System of Environmental-Economic Accounting (SEEA) 2012 – Central Framework. This was first published and released on June 2017.

Starting 2018, RSSO CAR continued to estimate and improve the land accounts with inputs of new data and incorporated the learnings from the previous accounting efforts. The updated CAR land asset accounts cover the period 1999 to 2018. The release of this report is a significant accomplishment of the PSA to guide policy-makers, project implementers and regional stakeholders in making evidence-based decisions on the environment, preparing environmental policies and programs, and mainstreaming environmental concerns for the region. It is our desire that these environmental statistics will help build and institutionalize the region's databank of the environment statis tics to support the region's implementation of the Sustainable Development Goals (SDG) indicators.

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Acronyms

BIR	Bureau of Internal Revenue
CAR	Cordillera Administrative Region
DAR	Department of Agrarian Reform
DENR	Department of Environment and Natural Resources
ENRA	Environment and Natural Resource Accounting
ENRAD	Environment and Natural Resources Accounts Division
EMB	Environmental Management Bureau
FAO	Food and Agriculture Organization
FMB	Forest Management Bureau
LCCS	Land Cover Classification System
MAS	Macroeconomic Accounts Service
MGB	Mines and Geosciences Bureau
NAMRIA	National Mapping and Resource Information Authority
NEDA	National Economic and Development Authority
PEENRA	Philippine Economic-Environmental and Natural Resources Accounting
PMD	Planning Management Division
PSA	Philippine Statistics Authority
RSET	Regional Social and Economic Trends
RSSO	Regional Statistical Services Office
SDG	Sustainable Development Goals
SEEA	System of Environmental-Economic Accounting
SNA	System of National Accounts
SOCD	Statistical Operations and Coordination Division
UN	United Nations
UNFC	United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources
UNSC	United Nations Statistical Commission
WWRRDEC	Watershed and Water Resources Research Development and Extension Center

Executive Summary

This study on CAR Asset Accounts for Land covering the period 1999-2018 is an update of the previous study of the same title covering the period 1999-2015. In this update, the updated 2015 Land Cover map data of CAR prepared by the National Mapping and Resource Information Authority (NAMRIA) is incorporated together with the 2010 Land Cover map to assess the changes observed in the captured images between these years. The United Nations System of Environmental-Economic Accounting (SEEA) 2012 Central Framework is the adopted international environmental accounting standard for this study.

The accounting covered a 20-year period from 1999 to 2018. It presents the asset accounts for land in physical and monetary terms. In physical terms, the land cover in hectares were estimated with the corresponding changes in the stocks either by additions due to managed expansion, by natural expansion and/or upward reappraisals or by reductions due to managed regression, natural regression and/or downward reappraisals.

closing stock in 2018 posted an area equal to 897,595.8 hectares. This represented an annual average growth of 0.7 percent or an annual increase of 5,785 hectares during the accounting period. Crops and inland water bodies also expanded with an annual average growth of 0.4 percent (872.5 hectares) and 0.2 percent (53.1 hectares), respectively from 1999 to 2018.

Grassland of the region had the biggest decline from 465,152.9 hectares in 1999 to 149,418.4 hectares in 2018 translating to an annual decline of 5.3 percent or a yearly decrease of 16,617.6 hectares. Terrestrial barren land also posted a negative growth of 1.0 percent from 22,745.4 hectares in 1999 to 23,753.9 hectares in 2018 or a decrease of 120.4 hectares annually.

The monetary asset accounts for land increased in value from PHP1.1 trillion in 1999 to PHP1.5 trillion in 2018. The biggest share to this increase in the valuation of land was contributed by built-up areas amounting to almost PHP1.4 trillion by the end of 2018 or 90.7 percent of the total valuation. Also in 2018, the share of land used for agriculture was 4.4 percent, land used for forestry was 4.9 percent and the remaining 0.004 percent was the share of land used for aquaculture.

Introduction

The Cordillera Administrative Region (CAR) accounts for 6.1 percent of the total land mass of the Philippines. The region has a total land area of 1,829,368 hectares delineated into alienable and disposable lands and forestlands. Forestlands consisted of 1,553,599 hectares or 84.9 percent of the regional total while disposable and alienable land comprised of 275,769 hectares or 15.1 percent of total land area of the region.

The region has a mountainous topography characterized by towering peaks, plateaus and intermittent patches of valleys. Consequently, about 71 percent of the region's land area has slopes of 30 degrees and above.

By the end of 2015, the region's total population grew to 1,722,006 from 1,365,412 in 2000 which lead to a 1.5 percent growth and an average of 23,773 annually. At the onset of 2016, agriculture remained to be the region's primary source of occupation employing 43.9 percent of the region's workforce.

The region's growing population has led to massive encroachment and land use/cover conversion because of limited alienable and disposable land areas. In fact, the denudation of forest areas for economic development and conversion to other land uses further increased erosion rates and the depletion of nutrients, which if left unchecked, would affect the region's capability to sustain its agricultural needs and the needs of the growing Philippine economy. It is important to monitor changes such as denudation of forest areas in order to conserve, manage and protect the region's land resources effectively.

Utilization of land specifically for agricultural purposes is one of the vital components that determines the region's economic performance. In this sense, the nature and characteristics of the resources must be understood in order to monitor the land use changes for proper conservation and management.

The increasing population in the region and the country underscores the need to conserve and manage its land and soil resources so as to maintain or improve productivity of the land to feed the growing population. Understanding the nature of these resources is vital to manage them sustainably, not to mention that food production is highly dependent on both the quantity and quality of land and soil resources.

Objectives of the Study

The general objective of the study is to support the institutionalization of environmental-economic accounting by following the UN System of Environmental-Economic Accounting (SEEA) 2012 being its main Central Framework, particularly in the compilation of the asset accounts for land of the region. The study also aims to strengthen the data support on environmental accounting.

Specifically, the study intends to:

1. Come up with the asset accounts for land of CAR in terms of area;

2. Value the land cover according to their use in the economy;

3. Establish a database on physical and monetary asset accounts for land; and

4. Come up with possible recommendations for the improvement of the accounting and valuation of stocks of land in CAR.

Framework of the Study

Scope and coverage

Land is defined as a unique environmental asset that delineates the space in which economic activities and environmental processes take place and within which environmental assets and economic assets are located (UN, 2014, p.174).

The SEEA 2012 Central Framework also introduces the concept of land use and land cover which outlined the physical and monetary asset accounts for land. Land use, as defined by SEEA 2012, reflects both the activities undertaken and the institutional arrangements put in place in an area, either for economic production purposes or for maintenance and restoration of environmental functions (UN, 2014, p.175). On the other hand, land cover refers to the observed physical and biological cover of the Earth's surface, including natural vegetation and abiotic surfaces (UN, 2014, p.176).

This study presents the physical and monetary accounts for land covering the period 1999 to 2018. It includes all the classification from the georeferenced data from the 2010 and 2015 land cover and all the reported changes in the stocks using all the available data that can relate to the additions and/or reductions of land in the region to provide an update on the previous accounting from 1999 to 2015 released in June 2017.

Classification of land cover

The SEEA 2012 – Central Framework established an interim land cover classification with 14 classes based on the Food and Agriculture Organization's (FAO) Land Cover Classification System (LCCS). The LCCS is used to systematically record the biophysical characteristics of all areas of land within any territory. There is an enormous number of different land cover features that can be created with the LCCS approach. For the purposes of standardization and harmonization across statistical data sets, a classification comprising 14 classes has been established:

1. Artificial surfaces (including urban and associated areas)
2. Herbaceous crops
3. Woody crops
4. Multiple or layered crops
5. Grassland
6. Tree-covered areas
7. Mangroves
8. Shrub-covered areas
9. Shrubs and/or herbaceous vegetation, aquatic or regularly flooded

10. Sparsely natural vegetated areas
11. Terrestrial barren land
12. Permanent snow and glaciers
13. Inland water bodies
14. Coastal water bodies and intertidal areas

Table 1 presents a modified bridge table to align the local land cover classification used by the DENR-NAMRIA in relation to the SEEA 2012 – Central Framework interim land cover classification.

Table 1. Bridge Table on SEEA 2012 Interim Land Cover Classification and NAMRIA Land Cover Classification[1]

SEEA 2012 – Central Framework	DENR-NAMRIA
Artificial surfaces (including urban and associated areas)	Built-up area
Crops	Annual cropland
	Perennial cropland
Shrub-covered areas	Shrub land
	Fallow
	Wooded grassland
Tree-covered areas	Closed Forest
	Open Forest
	Plantation Forest
Inland water bodies	Inland water
	Fishpond
Mangroves	Mangrove forest
Grassland	Grassland
Terrestrial barren land	Barren land
Regularly flooded areas	Marshland/Swamp
Sparse natural vegetated areas	
Permanent snow and glaciers	
Coastal water bodies and inter-tidal areas	

The local land cover classification and terms is also used in the operationalization of the framework. Mangroves are not included in the accounting matrix since there is no mangrove forest in the region. Permanent snow and glaciers are not applicable in the Philippines. Also, no equivalent local classification matched for the sparsely natural vegetated areas and the coastal water bodies and inter-tidal areas.[1]

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1 Adopted from the paper presented on the 13th National Convention on Statistics entitled "Accounting for Forest Cover of the Philippines: A Tool for Sustainable Management" by Bathan, Virginia M. et. al. with inputs from DENR-CAR

Conceptual Framework

The asset accounts for land resources in the region, in physical and monetary terms, used the UN SEEA 2012 – Central Framework. This framework is the first comprehensive international statistical standard for environmental-economic accounting adopted by the United Nations Statistical Commission (UNSC). It is a multipurpose conceptual framework for understanding the interaction between the economy and the environment, including for describing the stocks and changes in stocks of environmental assets (UN, 2014, vii).

The opening stock represents the stock of resources at the beginning of the accounting period while the closing stock represents the stock of resources at the end of the accounting period. Within the period, several factors may occur resulting to changes in the stocks. These changes could either be due to managed expansion, natural expansion and upward reappraisals for additions to stock or managed regression, natural regression and downward reappraisals for reductions in stock. The closing stock for a year is equal to the opening stock of the succeeding year.

The physical and monetary accounts are then computed for an accounting period. The monetary value of the physical accounts is computed by multiplying each transaction item by the zonal value for each type of land use. The zonal value is defined as the value of real properties which can more or less approximate the present fair market value of real properties as basis for computing the Property Tax (capital gains tax, documentary stamp tax, estate tax when the property is sold or transferred). It is highly dependent on the area where the property is located (Anchor Land Holdings Inc., 2013).

Table 2 presents the basic structure of asset accounts for land based on SEEA 2012 Central Framework. It provides information on the quantities of stock and changes over the period covered.

Table 2. Basic Structure of Physical Asset Account for Land

Opening Stocks of Resources	
Additions to stocks	
Managed expansion	Represents an increase in the area of land cover type due to human activity.
Natural expansion	An increase in the area resulting from natural processes including seeding, sprouting, suckering or layering.
Upward reappraisals	Reflect changes due to use of updated information that permits a reassessment of the size of the area of different land covers.
Reductions in stock	
Managed regression	A decrease in the area of land cover type due to human activity.
Natural regression	A decrease in the area of land cover type due to natural reasons.
Downwards reappraisals	Reflect changes due to use of updated information that permits a reassessment of the size of the area of different land covers.
Closing stock of resources	

Source: SEEA 2012 Central Framework

Operational Framework

Data and data sources

The data utilized in the estimation of physical asset account on land are from line bureaus and offices under the DENR. Georeferenced data come from NAMRIA, the agency mandated to provide natural resources data in the form of maps, charts, texts and statistics.

The 2010 Land Cover Maps and Statistics is the result of the national mapping activity carried out by NAMRIA using ALOS-AVNIR-2, SPOT5 and Landsat 7 imageries with 30-meter resolution while the 2015 Land Cover Data and Statistics is the result of the latest mapping activity using Landsat 8 with 30-meter resolution and Google Earth. The land cover classification follows the DENR Department Memorandum Circular 2005-05: Adopting Forestry Definitions Concerning Forest Cover/Land Use and the Forest Resources Assessment (FRA) of the Food and Agriculture Organization (FAO) of the UN.

Other data used is sourced from the Department of Agrarian Reform (DAR) for the land conversions from agricultural land to built-up areas and PSA for the land use for aquaculture. The zonal values downloaded from Bureau of Internal Revenue (BIR) website are used for monetary asset accounts. The BIR zonal values are used in the estimation of the monetary values of each land use. It is an approximation of the prevailing market values per square meter expressed in peso.

Data limitations

Land cover of the region provided by DENR-CAR from NAMRIA for 2010 and 2015 are used as bases for the estimation of land resource of the region. The land area of the region in 2010 and 2015 based on cadastral map are adjusted to meet the total land area of 1,829,368 hectares.

The administrative reports compiled showed no relationship to the changes observed in the stock of land from 2010 and 2015. The discrepancy is addressed by distributing the changes within the five-year period. For the other years, the data gathered were incorporated to reflect the additions and reductions.

Data on the area of aquaculture from PSA-CAR is limited only to years 2008 to 2018. These data are used in the estimation of monetary asset accounts for land use for aquaculture.

Estimation methodology

Physical asset account

The compilation of the asset account in physical terms presents the changes in the opening and closing stocks of land cover in the region. Stocks increase due to natural and/or managed expansion. The decreases in stocks are attributed to natural and/or managed regression.

Information on the land cover area is generated through the data provided by NAMRIA and DENR. The land cover area by classification for 2010 and 2015 served as bases for the closing stocks for their respective year of accounting. Generally, the closing stock is derived by adding the total additions to stock and subtracting the total reductions in the stock from the opening stock. But for 2010 and 2015 as entries for closing stocks, the opening stock is computed by adding the total reductions and subtracting the total additions from the closing stock. Closing stock for the year will be the opening stock for the next year.

The following are the general procedures in the estimation of physical asset accounts for land:

1. The adjusted land cover of the region in 2010 and 2015 serve as bases for the closing stock of land for 2010 and 2015, respectively. The adjusted area for each land cover classification is derived using the following formula:

$$ALC_{adj,t} = ALC_t - [D * (PC)]$$

Where:

ALC = area of land cover
$D = |TLA_t - TLA_{CAR}|$
TLA_{CAR} = Total Land Area of CAR = 1,829,368
TLA_t = Total Land Area for a given year
PC = Percent Contribution = (ALC_t/TLA_t)
adj = adjusted value
t = year

2. Additions to stock of tree-covered area are caused by the afforestation/reforestation efforts. A matching entry of reductions in stock of grassland and shrub-covered area which are distributed according to their respective percent contribution are recorded.

3. Reductions in stock of crops or land devoted to agriculture are caused by land conversion to artificial surfaces (built-up areas). A matching entry of additions to stock to artificial surfaces is recorded.

4. For computing the difference between the 2010 and 2015 land cover results, the administrative reports are used as bases for the distribution of changes in the stock according to their percentage contribution. This assumption is applied to artificial surfaces, crops, tree-covered areas, grassland and shrub-covered areas.

5. For inland water, the observed increase to the stock is equally distributed for 2011-2015 since 2010 is considered as the closing stock. In the same manner, the observed decrease in the stock of terrestrial barren land is equally divided for the same period.

Monetary asset account

In monetary terms, the land resource account is estimated using the physical land area in each year, multiplied by the average prevailing zonal value obtained from the BIR. The BIR zonal values are summarized according to the land type and land use. It is an approximation of the prevailing market values expressed in peso. The area of land use is converted from hectar to square meter to directly multiply the zonal value to the area per classification. The monetary estimates of the opening and closing stocks as well as the changes in the area are calculated by multiplying the physical area (in square meter) with the average prevailing zonal value for the region.

The framework also provides information on the effect of the year to year change in price through the item revaluation. In the monetary accounts for land, revaluation is computed as a residual. This is done by deducting from the closing stock the difference between the opening stock and the net changes.

The following are the general procedures in the estimation of monetary asset accounts for land:

1. The adjusted land covers for the years 2010 and 2015 serve as reference to come up with the area of land use per classification.

2. The average zonal value per type of land in the region was used to estimate the prevailing market price of land. The specific type of land used to assess the zonal values was classified accordingly to match them with the land use defined on the monetary asset account for land.

3. All the entries are multiplied by their corresponding average zonal value (summarized) to come up with the estimates on prevailing market value of lands. The process of estimation is presented in the following formula:

$$PMV_t = ALC_t * ZV_t$$

Where:
PMV = Prevailing market value
ALC = area of land cover (in square meter)
ZV = average zonal value per land classification
t = year

4. The formula for revaluation is presented below:

$$Rev_t = CS_t - (OS_t - Net_t)$$

Where:
Rev = Revaluations
CS = Closing stock
OS = Opening Stock
Net = Net changes
t = year

Results and Discussions

Land Cover

Land cover was categorized into major land use groupings namely open, closed and plantation forest; inland water; fishpond; other land uses which include built up area, annual and perennial crop, barren land and grassland; and other wooded lands which include fallow, shrubs and wooded grassland.

Table 3 shows the result of the adjustment made with the 2010 and 2015 land cover of the region. Tree-covered areas of the region, which composed of open, closed and plantation forest, generally increased from 800,871.5 hectares in 2010 to 856,765.3 hectares in 2015 with a growth rate of 7.0 percent. It grew by an annual average of 1.4 percent or a yearly increase of 11,178.8 hectares. It was noted that plantation forest had the biggest increase from 15,646.1 hectares in 2010 to 40,620.8 hectares in 2015 represented by a 164.2 percent growth rate. Open forest grew by 5.8 percent during the same time period. On the other hand, closed forest decreased by 0.1 percent from 249,419.1 hectares in 2010 to 249,123.2 hectares in 2015.

Shrub-covered areas (shrubs, fallow and other wooded land) posted a growth of 75.2 percent from 291,350.0 hectares in 2010 to 510,377.8 hectares in 2015. Artificial surfaces or built-up areas grew by 49.2 percent with yearly increment of 1,540.0 hectares. Other land cover that posted an increase include crops with area derived from the annual and perennial crops with 7.3 percent growth and inland water bodies which include fishpond with 4.4 percent growth, during the period 2010 to 2015.

Grassland declined at a rate of 65.2 percent from 457,087.9 hectares in 2010 to 159,122.7 hectares in 2015 with an annual decrease of 59,593.0 hectares. The land cover data also showed a decrease in the area of terrestrial barren land at a rate of 17.7 percent from 12,915.0 hectares in 2010 to 10,627.7 hectares in 2015.

Table 3. Land Cover, CAR: 2010 and 2015 (in Hectares)

Land Cover	2010	2015
Closed forest	249,419.1	249,123.2
Open Forest	536,075.6	567,021.2
Plantation Forest	15,376.8	40,620.8
Built-up area	15,646.1	23,346.3
Annual Crop	226,397.0	240,354.5
Perennial Crop	2,355.1	5,019.9
Barren land	12,915.0	10,627.7
Grassland	457,087.9	159,122.7
Fallow	-	-
Shrubs	291,350.0	510,377.8
Wooded grassland	-	-
Fishpond	-	218.5
Inland Water	22,745.4	23,535.4
Total	1,829,368.0	1,829,368.0

Source: NAMRIA

Physical Asset Accounts

As shown in Table 4, artificial surfaces increased with an annual average growth of 2.2 percent from 15,604.1 hectares in 1999 to 23,348.7 in 2018 or an average increase of 407.6 hectares yearly. Crops or agricultural land also increased with annual average growth of 0.4 percent from 228,794.2 hectares in 1999 to 245,371.9 hectares in 2015 representing an annual increment of 872.5 hectares.

Tree-covered areas in the region exhibited an uptrend with an annual average growth of 0.7 percent or equivalent to 5,785.8 hectares annual average increase. The effect of National Greening Program (NGP) that started in 2011 was seen to have a significant contribution to the increase in forest cover of the region.

Grasslands and shrub-covered areas gradually decreased from 1999 to 2009 due to reforestation activities. However, some procedures were done to arrive at 2015 land cover from 2010. The observed changes were distributed to the years in between following the percentage contribution of the reported conversions for each year. The resulting adjustments posted an annual average increase of 2.7 percent for shrub-covered areas or 9,619.0 hectares yearly increment and a 5.3 percent decline on the area of grassland or 16,617.6 hectares yearly decrement from 1999-2018.

Table 4. Land Cover by Land Classification, CAR: 1999-2018 (in Hectares)

Year	Artificial surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
1999	15,604.1	228,794.2	465,152.9	787,665.8	296,490.7	12,915.0	22,745.4
2000	15,604.1	228,794.2	463,175.3	790,903.9	295,230.2	12,915.0	22,745.4
2001	15,604.1	228,794.2	461,003.2	794,460.5	293,845.7	12,915.0	22,745.4
2002	15,608.1	228,790.1	461,279.6	794,008.1	294,021.8	12,915.0	22,745.4
2003	15,616.1	228,782.1	460,605.9	795,111.1	293,592.4	12,915.0	22,745.4
2004	15,619.8	228,778.4	460,663.9	795,016.2	293,629.4	12,915.0	22,745.4
2005	15,624.8	228,773.4	460,937.3	794,568.6	293,803.6	12,915.0	22,745.4
2006	15,629.8	228,768.5	462,288.6	792,355.9	294,664.9	12,915.0	22,745.4
2007	15,631.4	228,766.8	460,789.3	794,810.8	293,709.3	12,915.0	22,745.4
2008	15,641.5	228,756.7	458,292.2	798,899.6	292,117.6	12,915.0	22,745.4
2009	15,646.0	228,752.2	453,178.8	807,272.3	288,858.3	12,915.0	22,745.4
2010	15,646.1	228,752.1	457,087.9	800,871.5	291,350.0	12,915.0	22,745.4
2011	17,384.0	228,932.2	434,177.8	805,443.5	308,025.9	12,457.5	22,947.1
2012	18,633.6	232,475.0	399,541.0	811,857.1	331,712.5	12,000.1	23,148.8
2013	21,621.7	238,925.4	300,271.0	830,535.8	403,121.0	11,542.6	23,350.5
2014	23,262.9	241,622.8	218,218.3	845,939.5	465,687.2	11,085.2	23,552.2
2015	23,346.3	245,374.3	159,122.7	856,765.3	510,377.8	10,627.7	23,753.9
2016	23,347.4	245,373.2	156,031.3	869,772.2	500,462.3	10,627.7	23,753.9
2017	23,348.0	245,372.7	152,149.3	886,105.5	488,011.0	10,627.7	23,753.9
2018	23,348.7	245,371.9	149,418.4	897,595.8	479,251.6	10,627.7	23,753.9

Note: (..) Not applicable
Source: PSA - RSSO CAR

Physical Asset Accounts, Land Cover Change

Figure 1 shows the conversion of land covers from one type to another. Assuming that the map for 2010 is valid, it reflects the changes made by the afforestation/ reforestation activities of the combined efforts of different government agencies and private sectors. The presence of artificial surfaces on agricultural lands can also be observed from the figure. None of the data compiled can relate to the changes in regularly flooded areas, terrestrial barren-land and inland water of the region.

Figure 1. Land Cover Map, CAR: 2010 and 2015
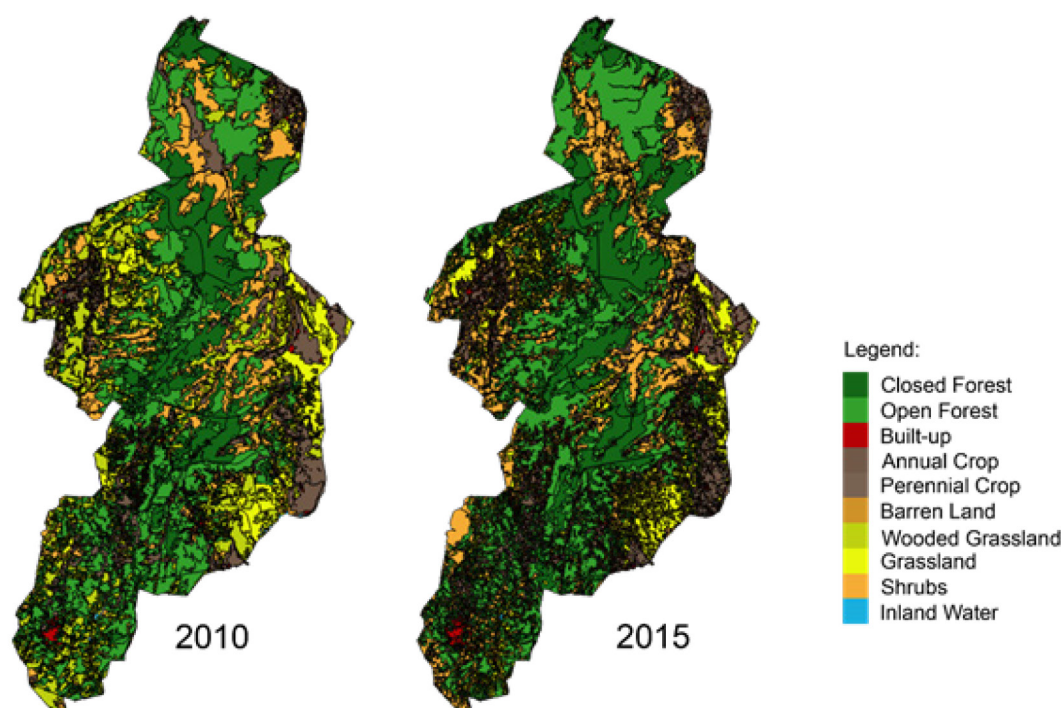
Source: NAMRIA

Monetary Asset Accounts

The result of the estimation of monetary accounts of land is presented in Table 5. The value of land used for agriculture generally increased. In 1999, the closing stock of agriculture was valued at PHP17.3 billion. It increased to PHP66.1 billion in 2015 with an annual average growth of 9.6 percent or PHP2.6 billion.

Land used in forestry was valued at PHP21.0 billion in 1999 PHP73.9 billion in 2018. This accounted 8.3 percent annual average growth with an equivalent increase of PHP2.8 million yearly.

The biggest share to the total monetary valuation of land in the region was land used for built-up areas. It contributed to as much as 96.5 percent in 1999 and 2000. In 2018, it was estimated to have 90.7 percent share to the total value of land in CAR. During the 20-year accounting period, built-up areas registered an annual average growth of 1.5 percent or annual average increase of PHP16.0 billion from PHP1.1 trillion in 1999 to PHP1.4 trillion in 2018.

Given the available data on land used for aquaculture, the posted area in 2009 was valued at PHP68.0 million which decreased to PHP66.0 million in 2015 by an annual average of 0.3 percent or PHP216 thousand.

The total valuation of all closing stocks of land use in CAR amounted to PHP1.5 trillion at the end of 2018. It grew by an annual average of 1.8 percent from PHP1.1 trillion in 1999 or PHP21.4 billion annual average increment.

Table 5. Estimated Value of Land, CAR: 1999-2018 (in Pesos)

Year	Agriculture	Forestry	Aquaculture	Built-up	Total
1999	17,266,833,602.2	21,004,421,426.9	…	1,055,604,605,068.7	1,093,875,860,097.8
2000	17,266,833,602.2	21,090,771,213.5	…	1,055,604,605,068.7	1,093,962,209,884.4
2001	17,266,833,602.2	21,185,614,213.5	…	1,055,604,605,068.7	1,094,057,052,884.4
2002	33,526,246,152.1	38,115,833,851.8	…	1,050,898,437,358.5	1,122,540,517,362.4
2003	33,525,073,796.5	38,168,781,656.8	…	1,051,437,107,066.8	1,123,130,962,520.2
2004	33,524,532,957.3	38,164,226,660.1	…	1,051,685,609,911.6	1,123,374,369,529.0
2005	33,523,795,948.9	38,142,739,161.4	…	1,052,024,247,892.0	1,123,690,783,002.3
2006	33,523,072,158.1	38,036,523,928.0	…	1,052,356,812,675.0	1,123,916,408,761.2
2007	33,522,825,052.6	38,154,367,254.6	…	1,052,470,351,839.2	1,124,147,544,146.4
2008	33,521,354,039.7	38,350,647,175.1	-	1,053,146,247,527.8	1,125,018,248,742.6
2009	59,953,633,794.5	59,118,395,882.6	67,965,807.2	911,356,764,767.1	1,030,496,760,251.5
2010	61,605,929,805.1	65,950,261,015.2	64,309,294.4	911,549,494,303.2	1,039,169,994,417.9
2011	61,654,428,474.8	66,326,761,433.2	66,536,506.2	1,012,798,436,551.5	1,140,846,162,965.8
2012	62,608,549,617.8	66,854,904,272.7	68,120,763.8	1,085,597,096,816.9	1,215,128,671,471.2
2013	64,345,743,909.6	68,393,062,072.8	69,321,099.1	1,259,686,874,674.5	1,392,495,001,756.0
2014	65,072,181,835.0	69,661,529,466.4	68,304,630.2	1,355,302,395,988.0	1,490,104,411,919.6
2015	66,082,517,345.2	70,553,010,523.9	65,664,586.3	1,360,162,602,284.7	1,496,863,794,740.1
2016	66,082,209,628.1	71,624,107,028.2	68,862,011.3	1,360,229,170,528.5	1,498,004,349,196.0
2017	66,082,070,150.8	72,969,120,807.0	66,018,442.4	1,360,259,343,549.2	1,499,376,552,949.4
2018	66,081,861,379.3	73,915,331,600.9	66,018,442.4	1,360,304,506,950.7	1,500,367,718,373.3

Note: (…) Data not available
(-) Nil or Zero
Source: PSA - RSSO CAR

Conclusions and Recommendations

The following conclusions were drawn based on the results of this study:

a. The physical asset accounts for land showed increase on the area of tree-covered areas, shrub-covered areas, crops, artificial surfaces and inland water bodies. On the contrary, the area of grassland and terrestrial barren land decreased as an effect of the growth of the other land classifications. The following were the specific changes from 1999 to 2018:

    i.   Shrub covered areas posted the highest increase from 296,490.7 hectares in 1999 to 479,251.6 hectares in 2018 with an annual average growth of 2.7 percent or an annual average increase of 9,619.0 hectares;

    ii. Artificial surfaces came second with the highest growth at 2.2 percent from 15,604.1 hectares in 1999 to 23,348.7 hectares in 2018 or an increase of 407.6 hectares yearly;

    iii. Tree-covered area of the region comprised 787,655.8 hectares in 1999. The estimated closing stock in 2018 was 897,595.8 hectares. This represented an annual average growth of 0.7 percent or an annual increase of 5,785 hectares during the accounting period;

    iv. Crops and inland water bodies also grew with an annual average growth of 0.4 percent (872.5 hectares annual increase) and 0.2 percent (53.1 hectares annual increase), respectively from 1999 to 2018;

    v.   Grassland of the region exhibited the biggest decline in the stock of land. It decreased from 465,152.9 hectares in 1999 to 149,418.4 hectares in 2018 representing an annual decline of 5.3 percent or a yearly decrease of 16,617.6 hectares; and

    vi. Terrestrial barren land also posted a negative growth of 1.0 percent from 22,745.4 hectares in 1999 to 23,753.9 hectares in 2018 or a decrease of 120.4 hectares annually.

b. The monetary asset accounts for land increased from PHP1.1 trillion in 1999 to PHP1.5 trillion in 2018. The biggest share to the increase in the valuation of land was due to the value of built-up areas amounting to almost PHP1.4 trillion by the end of 2018 or 90.7 percent of the total valuation. For the same year, land used for agriculture shared 4.4 percent, land used for forestry shared 4.9 percent and the remaining 0.004 percent was the shared of by land used for aquaculture.

Based on the conclusions drawn, the following are therefore recommended:

a. The result of the compilation and estimation including the indicators drawn from this study should be consolidated in a databank or database to support and as a basis of project preparations and policy recommendations;

b. The concerned agencies should improve and update their databanks/databases to be able to conduct a complete and meaningful land accounting. Data on the following should be continuously updated, and where appropriate and possible, incorporated in the reports regularly submitted by the concerned agencies:

   (i) actual area effectively converted not only from agricultural land to built-up areas but also other conversions such as forest land to agricultural land and/or built-up areas;

   (ii) data implying the changes in the area of barren lands and inland water bodies should be identified to incorporate in the accounting table. Data on regularly flooded areas should have at least two-year survey results for comparison; and

   (iii) as much as possible, all data must have a provincial estimate or disaggregation to make way for asset accounting at the provincial level.

c. Local terms and definitions used by DENR and other concerned agencies in reporting data on land cover should be standardized in accordance to international standards to ensure comparability of data on national and international level.

d. Special studies on land valuation should be conducted to provide an overview of existing land market in the region and compare different valuation.

Appendices

Appendix Table 1

Physical Account for Land Cover, CAR: 1999 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	15,604.1	228,794.2	467,803.4	783,325.9	298,180.1	12,915.0	22,745.4
Additions to stock							
Managed expansion	-	…	311.8	4,850.4	198.7	…	…
Natural expansion	…	…	…	…	…	…	…
Upward reappraisals	…	…	…	…	…	…	…
Total additions to stock	-	-	311.8	4,850.4	198.7	-	-
Reductions in stock							
Managed regression	…	-	2,962.3	510.6	1,888.2	…	…
Natural regression	…	…	…	…	…	…	…
Downward reappraisals	…	…	…	…	…	…	…
Total reductions to stock	-	-	2,962.3	510.6	1,888.2	-	-
Closing Stock	15,604.1	228,794.2	465,152.9	787,665.8	296,490.7	12,915.0	22,745.4

Note: (…) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 2

Physical Account for Land Cover, CAR: 2000 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	15,604.1	228,794.2	465,152.9	787,665.8	296,490.7	12,915.0	22,745.4
Additions to stock							
Managed expansion	-	…	172.7	3,521.0	110.1	…	…
Natural expansion	…	…	…	…	…	…	…
Upward reappraisals	…	…	…	…	…	…	…
Total additions to stock	-	-	172.7	3,521.0	110.1	-	-
Reductions in stock							
Managed regression	…	-	2,150.3	282.8	1,370.6	…	…
Natural regression	…	…	…	…	…	…	…
Downward reappraisals	…	…	…	…	…	…	…
Total reductions to stock	-	-	2,150.3	282.8	1,370.6	-	-
Closing Stock	15,604.1	228,794.2	463,175.3	790,903.9	295,230.2	12,915.0	22,745.4

Note: (…) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 3

Physical Account for Land Cover, CAR: 2001 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	15,604.1	228,794.2	463,175.3	790,903.9	295,230.2	12,915.0	22,745.4
Additions to stock							
Managed expansion	…	…	22.8	3,594.0	14.6	…	…
Natural expansion	…	…	…	…	…	…	…
Upward reappraisals	…	…	…	…	…	…	…
Total additions to stock	-	-	22.8	3,594.0	14.6	-	-
Reductions in stock							
Managed regression	…	…	2,194.9	37.4	1,399.1	…	…
Natural regression	…	…	…	…	…	…	…
Downward reappraisals	…	…	…	…	…	…	…
Total reductions to stock	-	-	2,194.9	37.4	1,399.1	-	-
Closing Stock	15,604.1	228,794.2	461,003.2	794,460.5	293,845.7	12,915.0	22,745.4

Note: (…) Data not available

(-) Nil or zero

Source: PSA-RSSO CAR

Appendix Table 4

Physical Account for Land Cover, CAR: 2002 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	15,604.1	228,794.2	461,003.2	794,460.5	293,845.7	12,915.0	22,745.4
Additions to stock							
Managed expansion	4.0	…	2,016.3	2,849.0	1,285.2	…	…
Natural expansion	…	…	…	…	…	…	…
Upward reappraisals	…	…	…	…	…	…	…
Total additions to stock	4.0	-	2,016.3	2,849.0	1,285.2	-	-
Reductions in stock							
Managed regression	…	4.0	1,739.9	3,301.4	1,109.1	…	…
Natural regression	…	…	…	…	…	…	…
Downward reappraisals	…	…	…	…	…	…	…
Total reductions to stock	-	4.0	1,739.9	3,301.4	1,109.1	-	-
Closing Stock	15,608.1	228,790.1	461,279.6	794,008.1	294,021.8	12,915.0	22,745.4

Note: (…) Data not available

(-) Nil or zero

Source: PSA-RSSO CAR

Appendix Table 5

Physical Account for Land Cover, CAR: 2003 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	15,608.1	228,790.1	461,279.6	794,008.1	294,021.8	12,915.0	22,745.4
Additions to stock							
Managed expansion	8.0	...	136.8	1,327.0	87.2	...	...
Natural expansion	...	...	...	...	...	...	...
Upward reappraisals	...	...	...	...	...	...	...
Total additions to stock	8.0	-	136.8	1,327.0	87.2	-	-
Reductions in stock							
Managed regression	...	8.0	810.4	224.0	516.6	...	...
Natural regression	...	...	...	...	...	...	...
Downward reappraisals	...	...	...	...	...	...	...
Total reductions to stock	-	8.0	810.4	224.0	516.6	-	-
Closing Stock	15,616.1	228,782.1	460,605.9	795,111.1	293,592.4	12,915.0	22,745.4

Note: (...) Data not available

(-) Nil or zero

Source: PSA-RSSO CAR

Appendix Table 6

Physical Account for Land Cover, CAR: 2004 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	15,616.1	228,782.1	460,605.9	795,111.1	293,592.4	12,915.0	22,745.4
Additions to stock							
Managed expansion	3.7	...	302.8	401.0	193.0	...	...
Natural expansion	...	...	...	...	...	...	...
Upward reappraisals	...	...	...	...	...	...	...
Total additions to stock	3.7	-	302.8	401.0	193.0	-	-
Reductions in stock							
Managed regression	...	3.7	244.9	495.9	156.1	...	...
Natural regression	...	...	...	...	...	...	...
Downward reappraisals	...	...	...	...	...	...	...
Total reductions to stock	-	3.7	244.9	495.9	156.1	-	-
Closing Stock	15,619.8	228,778.4	460,663.9	795,016.2	293,629.4	12,915.0	22,745.4

Note: (...) Data not available

(-) Nil or zero

Source: PSA-RSSO CAR

Appendix Table 7

Physical Account for Land Cover, CAR: 2005 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	15,619.8	228,778.4	460,663.9	795,016.2	293,629.4	12,915.0	22,745.4
Additions to stock							
Managed expansion	5.0	...	789.4	845.0	503.2	...	...
Natural expansion	...	...	...	...	...	...	...
Upward reappraisals	...	...	...	...	...	...	...
Total additions to stock	5.0	-	789.4	845.0	503.2	-	-
Reductions in stock							
Managed regression	...	5.0	516.1	1,292.6	328.9	...	...
Natural regression	...	...	...	...	...	...	...
Downward reappraisals	...	...	...	...	...	...	...
Total reductions to stock	-	5.0	516.1	1,292.6	328.9	-	-
Closing Stock	15,624.8	228,773.4	460,937.3	794,568.6	293,803.6	12,915.0	22,745.4

Note: (...) Data not available

(-) Nil or zero

Source: PSA-RSSO CAR

Appendix Table 8

Physical Account for Land Cover, CAR: 2006 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	15,624.8	228,773.4	460,937.3	794,568.6	293,803.6	12,915.0	22,745.4
Additions to stock							
Managed expansion	4.9	...	1,770.9	687.0	1,128.8	...	...
Natural expansion	...	...	...	...	...	...	...
Upward reappraisals	...	...	...	...	...	...	...
Total additions to stock	4.9	-	1,770.9	687.0	1,128.8	-	-
Reductions in stock							
Managed regression	...	4.9	419.6	2,899.6	267.4	...	...
Natural regression	...	...	...	...	...	...	...
Downward reappraisals	...	...	...	...	...	...	...
Total reductions to stock	-	4.9	419.6	2,899.6	267.4	-	-
Closing Stock	15,629.8	228,768.5	462,288.6	792,355.9	294,664.9	12,915.0	22,745.4

Note: (...) Data not available

(-) Nil or zero

Source: PSA-RSSO CAR

Appendix Table 9

Physical Account for Land Cover, CAR: 2007 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	15,629.8	228,768.5	462,288.6	792,355.9	294,664.9	12,915.0	22,745.4
Additions to stock							
Managed expansion	1.7	...	269.4	2,896.0	171.7	...	...
Natural expansion	...	...	...	...	...	...	...
Upward reappraisals	...	...	...	...	...	...	...
Total additions to stock	1.7	-	269.4	2,896.0	171.7	-	-
Reductions in stock							
Managed regression	...	1.7	1,768.7	441.2	1,127.3	...	...
Natural regression	...	...	...	...	...	...	...
Downward reappraisals	...	...	...	...	...	...	...
Total reductions to stock	-	1.7	1,768.7	441.2	1,127.3	-	-
Closing Stock	15,631.4	228,766.8	460,789.3	794,810.8	293,709.3	12,915.0	22,745.4

Note: (…) Data not available

(-) Nil or zero

Source:PSA-RSSO CAR

Appendix Table 10

Physical Account for Land Cover, CAR: 2008 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	15,631.4	228,766.8	460,789.3	794,810.8	293,709.3	12,915.0	22,745.4
Additions to stock							
Managed expansion	10.0	...	153.4	4,340.0	97.8	...	...
Natural expansion	...	...	...	...	...	...	...
Upward reappraisals	...	...	...	...	...	...	...
Total additions to stock	10.0	-	153.4	4,340.0	97.8	-	-
Reductions in stock							
Managed regression	...	10.0	2,650.5	251.2	1,689.5	...	...
Natural regression	...	...	...	...	...	...	...
Downward reappraisals	...	...	...	...	...	...	...
Total reductions to stock	-	10.0	2,650.5	251.2	1,689.5	-	-
Closing Stock	15,641.5	228,756.7	458,292.2	798,899.6	292,117.6	12,915.0	22,745.4

Note: (…) Data not available

(-) Nil or zero

Source:PSA-RSSO CAR

Appendix Table 11

Physical Account for Land Cover, CAR: 2009 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	15,641.5	228,756.7	458,292.2	798,899.6	292,117.6	12,915.0	22,745.4
Additions to stock							
Managed expansion	4.6	…	120.5	8,570.0	76.8	…	…
Natural expansion	…	…	…	…	…	…	…
Upward reappraisals	…	…	…	…	…	…	…
Total additions to stock	4.6	-	120.5	8,570.0	76.8	-	-
Reductions in stock							
Managed regression	…	4.6	5,233.9	197.3	3,336.1	…	…
Natural regression	…	…	…	…	…	…	…
Downward reappraisals	…	…	…	…	…	…	…
Total reductions to stock	-	4.6	5,233.9	197.3	3,336.1	-	-
Closing Stock	15,646.0	228,752.2	453,178.8	807,272.3	288,858.3	12,915.0	22,745.4

Note: (…) Data not available
(.) Not applicable
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 12

Physical Account for Land Cover, CAR: 2010 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	15,646.0	228,752.2	453,178.8	807,272.3	288,858.3	12,915.0	22,745.4
Additions to stock							
Managed expansion	0.1	…	5,263.7	2,218.0	3,355.1	…	…
Natural expansion	…	…	…	…	…	…	…
Upward reappraisals	…	…	…	…	…	…	…
Total additions to stock	0.1	-	5,263.7	2,218.0	3,355.1	-	-
Reductions in stock							
Managed regression	…	0.1	1,354.6	8,618.9	863.4	…	…
Natural regression	…	…	…	…	…	…	…
Downward reappraisals	…	…	…	…	…	…	…
Total reductions to stock	-	0.1	1,354.6	8,618.9	863.4	-	-
Closing Stock	15,646.1	228,752.1	457,087.9	800,871.5	291,350.0	12,915.0	22,745.4

Note: (…) Data not available
(-) Nil or zero
Source:PSA-RSSO CAR

Appendix Table 13

Physical Account for Land Cover, CAR: 2011 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	15,646.1	228,752.1	457,087.9	800,871.5	291,350.0	12,915.0	22,745.4
Additions to stock							
Managed expansion	1,737.9	180.1	175.4	4,608.5	16,807.2	-	-
Natural expansion	...	...	...	...	...	...	201.7
Upward reappraisals	...	...	...	...	...	...	...
Total additions to stock	1,737.9	180.1	175.4	4,608.5	16,807.2	-	201.7
Reductions in stock							
Managed regression	-	-	23,085.6	36.5	131.3	...	-
Natural regression	...	...	...	...	...	457.5	...
Downward reappraisals	...	...	...	...	...	...	...
Total reductions to stock	-	-	23,085.6	36.5	131.3	457.5	-
Closing Stock	17,384.0	228,932.2	434,177.8	805,443.5	308,025.9	12,457.5	22,947.1

Note: (...) Data not available

(-) Nil or zero

Source: PSA-RSSO CAR

Appendix Table 14

Physical Account for Land Cover, CAR: 2012 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	17,384.0	228,932.2	434,177.8	805,443.5	308,025.9	12,457.5	22,947.1
Additions to stock							
Managed expansion	1,249.5	3,542.8	179.6	6,450.5	23,829.9	-	-
Natural expansion	...	...	...	...	...	...	201.7
Upward reappraisals	...	...	...	...	...	...	...
Total additions to stock	1,249.5	3,542.8	179.6	6,450.5	23,829.9	-	201.7
Reductions in stock							
Managed regression	-	-	34,816.3	36.9	143.3	...	-
Natural regression	...	...	...	...	...	457.5	...
Downward reappraisals	...	...	...	...	...	...	...
Total reductions to stock	-	-	34,816.3	36.9	143.3	457.5	-
Closing Stock	18,633.6	232,475.0	399,541.0	811,857.1	331,712.5	12,000.1	23,148.8

Note: (...) Data not available

(-) Nil or zero

Source: PSA-RSSO CAR

Appendix Table 15

Physical Account for Land Cover, CAR: 2013 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	18,633.6	232,475.0	399,541.0	811,857.1	331,712.5	12,000.1	23,148.8
Additions to stock							
Managed expansion	2,988.1	6,450.5	4,285.2	19,528.7	74,648.8	-	201.7
Natural expansion	…	…	…	…	…	…	…
Upward reappraisals	…	…	…	…	…	…	…
Total additions to stock	2,988.1	6,450.5	4,285.2	19,528.7	74,648.8	-	201.7
Reductions in stock							
Managed regression	-	-	103,555.3	850.0	3,240.3	…	-
Natural regression	…	…	…	…	…	457.5	…
Downward reappraisals	…	…	…	…	…	…	…
Total reductions to stock	-	-	103,555.3	850.0	3,240.3	457.5	-
Closing Stock	21,621.7	238,925.4	300,271.0	830,535.8	403,121.0	11,542.6	23,350.5

Note: (…) Data not available

(-) Nil or zero

Source: PSA-RSSO CAR

Appendix Table 16

Physical Account for Land Cover, CAR: 2014 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	21,621.7	238,925.4	300,271.0	830,535.8	403,121.0	11,542.6	23,350.5
Additions to stock							
Managed expansion	1,641.2	2,697.4	9,796.6	17,240.8	69,602.2	-	201.7
Natural expansion	…	…	…	…	…	…	…
Upward reappraisals	…	…	…	…	…	…	…
Total additions to stock	1,641.2	2,697.4	9,796.6	17,240.8	69,602.2	-	201.7
Reductions in stock							
Managed regression	-	-	91,849.3	1,837.1	7,036.0	…	-
Natural regression	…	…	…	…	…	457.5	…
Downward reappraisals	…	…	…	…	…	…	…
Total reductions to stock	-	-	91,849.3	1,837.1	7,036.0	457.5	-
Closing Stock	23,262.9	241,622.8	218,218.3	845,939.5	465,687.2	11,085.2	23,552.2

Note: (…) Data not available

(-) Nil or zero

Source: PSA-RSSO CAR

Appendix Table 17

Physical Account for Land Cover, CAR: 2015 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	23,262.9	241,622.8	218,218.3	845,939.5	465,687.2	11,085.2	23,552.2
Additions to stock							
Managed expansion	83.4	3,751.5	10,918.6	12,844.7	52,602.2	-	…
Natural expansion	…	…	…	…	…	…	201.7
Upward reappraisals	…	…	…	…	…	…	…
Total additions to stock	83.4	3,751.5	10,918.6	12,844.7	52,602.2	-	201.7
Reductions in stock							
Managed regression	-	-	70,014.2	2,019.0	7,911.6		-
Natural regression	…	…	…	…	…	457.5	
Downward reappraisals	…	…	…	…	…	…	…
Total reductions to stock	-	-	70,014.2	2,019.0	7,911.6	457.5	-
Closing Stock	23,346.3	245,374.3	159,122.7	856,765.3	510,377.8	10,627.7	23,753.9

Note: (…) Data not available

(-) Nil or zero

Source: PSA-RSSO CAR

Appendix Table 18

Physical Account for Land Cover, CAR: 2016 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	23,346.3	245,374.3	159,122.7	856,765.3	510,377.8	10,627.7	23,753.9
Additions to stock							
Managed expansion	1.1	…	1,076.9	17,537.9	3,454.1	…	…
Natural expansion	…	…	…	…	…	…	…
Upward reappraisals	…	…	…	…	…	…	…
Total additions to stock	1.1	-	1,076.9	17,537.9	3,454.1	-	-
Reductions in stock							
Managed regression	…	1.1	4,168.3	4,531.0	13,369.6	…	…
Natural regression	…	…	…	…	…	…	…
Downward reappraisals	…	…	…	…	…	…	…
Total reductions to stock	-	1.1	4,168.3	4,531.0	13,369.6	-	-
Closing Stock	23,347.4	245,373.2	156,031.3	869,772.2	500,462.3	10,627.7	23,753.9

Note: (…) Data not available

(-) Nil or zero

Source: PSA-RSSO CAR

Appendix Table 19

Physical Account for Land Cover, CAR: 2017 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	23,347.4	245,373.2	156,031.3	869,772.2	500,462.3	10,627.7	23,753.9
Additions to stock							
Managed expansion	0.5	...	189.8	17,132.0	608.9	...	...
Natural expansion	...	...	...	...	...	...	...
Upward reappraisals	...	...	...	...	...	...	...
Total additions to stock	0.5	-	189.8	17,132.0	608.9	-	-
Reductions in stock							
Managed regression	...	0.5	4,071.8	798.8	13,060.2	...	...
Natural regression	...	...	...	...	...	...	...
Downward reappraisals	...	...	...	...	...	...	...
Total reductions to stock	-	0.5	4,071.8	798.8	13,060.2	-	-
Closing Stock	23,348.0	245,372.7	152,149.3	886,105.5	488,011.0	10,627.7	23,753.9

Note: (...) Data not available

(-) Nil or zero

Source: PSA-RSSO CAR

Appendix Table 20

Physical Account for Land Cover, CAR: 2018 (in Hectares)

	Artificial Surfaces	Crops	Grassland	Tree-covered area	Shrub-covered area	Terrestrial barren land	Inland water bodies
Opening stock of resources	23,348.0	245,372.7	152,149.3	886,105.5	488,011.0	10,627.7	23,753.9
Additions to stock							
Managed expansion	0.8	...	649.7	14,223.8	2,083.7	...	...
Natural expansion	...	...	...	...	...	...	...
Upward reappraisals	...	...	...	...	...	...	...
Total additions to stock	0.8	-	649.7	14,223.8	2,083.7	-	-
Reductions in stock							
Managed regression	...	0.8	3,380.6	2,733.4	10,843.1	...	...
Natural regression	...	...	...	...	...	...	...
Downward reappraisals	...	...	...	...	...	...	...
Total reductions to stock	-	0.8	3,380.6	2,733.4	10,843.1	-	-
Closing Stock	23,348.7	245,371.9	149,418.4	897,595.8	479,251.6	10,627.7	23,753.9

Note: (...) Data not available

(-) Nil or zero

Source: PSA-RSSO CAR

Appendix Table 21
Monetary Asset Account for Land, CAR: 1999 (in Pesos)

	Agriculture	Forestry	Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
Opening value of stock of land	17,266,833,602.2	20,888,691,237.2	…	1,055,604,605,068.7	…	…	…	…	1,093,760,129,908.2
Additions to stock									
Acquisition of land	-	129,345,066.7	-	-	-	…	…	…	129,345,066.7
Reclassifications	…	…	…	…	…	…	…	…	-
Total additions to stock	-	129,345,066.7	-	-	-	-	-	-	129,345,066.7
Reductions in stock									
Disposal of land	-	13,614,877.0	-	-	-	…	…	…	13,614,877.0
Reclassifications	…	…	…	…	…	…	…	…	-
Total reductions in stock	-	13,614,877.0	-	-	-	-	-	-	13,614,877.0
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	17,266,833,602.2	21,004,421,426.9	…	1,055,604,605,068.7	…	…	…	…	1,093,875,860,097.8

Note: (…) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 22
Monetary Asset Account for Land, CAR: 2000 (in Pesos)

	Agriculture	Forestry	Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
Opening value of stock of land	17,266,833,602.2	21,004,421,426.9	…	1,055,604,605,068.7	…	…	…	…	1,093,875,860,097.8
Additions to stock									
Acquisition of land	-	93,892,000.0	-	-	-	…	…	…	93,892,000.0
Reclassifications	…	…	…	…	…	…	…	…	-
Total additions to stock	-	93,892,000.0	-	-	-	-	-	-	93,892,000.0
Reductions in stock									
Disposal of land	-	7,542,213.3	-	-	-	…	…	…	7,542,213.3
Reclassifications	…	…	…	…	…	…	…	…	-
Total reductions in stock	-	7,542,213.3	-	-	-	-	-	-	7,542,213.3
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	17,266,833,602.2	21,090,771,213.5	…	1,055,604,605,068.7	…	…	…	…	1,093,962,209,884.4

Note: (…) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 23
Monetary Asset Account for Land, CAR: 2001 (in Pesos)

	Agriculture	Forestry	Land use for aquaculture	Types of land use Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
Opening value of stock of land	17,266,833,602.2	21,090,771,213.5	…	1,055,604,605,068.7	…	…	…	…	1,093,962,209,884.4
Additions to stock									
Acquisition of land	-	95,840,000.0	-	-	…	…	…	…	95,840,000.0
Reclassifications	…	…	…	…	…	…	…	…	-
Total additions to stock	-	95,840,000.0	-	-	-	-	-	-	95,840,000.0
Reductions in stock									
Disposal of land	-	997,000.0	-	-	-	…	…	…	997,000.0
Reclassifications	…	…	…	…	…	…	…	…	-
Total reductions in stock	-	997,000.0	-	-	-	-	-	-	997,000.0
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	17,266,833,602.2	21,185,614,213.5	…	1,055,604,605,068.7	…	…	…	…	1,094,057,052,884.4

Note: (…) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 24
Monetary Asset Account for Land, CAR: 2002 (in Pesos)

	Agriculture	Forestry	Land use for aquaculture	Types of land use Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
Opening value of stock of land	17,266,833,602.2	21,185,614,213.5	…	1,055,604,605,068.7	…	…	…	…	1,094,057,052,884.4
Additions to stock									
Acquisition of land	-	136,764,363.1	-	271,846,276.1	…	…	…	…	408,610,639.2
Reclassifications	…	…	…	…	…	…	…	…	-
Total additions to stock	…	136,764,363.1	-	271,846,276.1	-	-	-	-	408,610,639.2
Reductions in stock									
Disposal of land	591,643.6	158,483,630.5	-	-	-	…	…	…	159,075,274.1
Reclassifications	…	…	…	…	…	…	…	…	-
Total reductions in stock	591,643.6	158,483,630.5	-	-	-	-	-	-	159,075,274.1
Revaluations	16,260,004,193.5	16,951,938,905.6	-	- 4,978,013,986.3	-	-	-	-	28,233,929,112.8
Closing value of stock of land	33,526,246,152.1	38,115,833,851.8	…	1,050,898,437,358.5	…	…	…	…	1,122,540,517,362.4

Note: (…) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 25
Monetary Asset Account for Land, CAR: 2003 (in Pesos)

| | Types of land use | | | | | | | | |
	Agriculture	Forestry	Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
Opening value of stock of land	33,526,246,152.1	38,115,833,851.8	…	1,050,898,437,358.5	…	…	…	…	1,122,540,517,362.4
Additions to stock									
Acquisition of land	-	63,701,758.5	-	538,669,708.3	…	…	…	…	602,371,466.8
Reclassifications	…	…	…	…	…	…	…	…	-
Total additions to stock	-	63,701,758.5	-	538,669,708.3	-	-	-	-	602,371,466.8
Reductions in stock									
Disposal of land	1,172,355.6	10,753,953.5	-	-	-	…	…	…	11,926,309.0
Reclassifications	…	…	…	…	…	…	…	…	-
Total reductions in stock	1,172,355.6	10,753,953.5	-	-	-	-	-	-	11,926,309.0
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	33,525,073,796.5	38,168,781,656.8	…	1,051,437,107,066.8	…	…	…	…	1,123,130,962,520.2

Note: (…) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 26
Monetary Asset Account for Land, CAR: 2004 (in Pesos)

| | Types of land use | | | | | | | | |
	Agriculture	Forestry	Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
Opening value of stock of land	33,525,073,796.5	38,168,781,656.8	…	1,051,437,107,066.8	…	…	…	…	1,123,130,962,520.2
Additions to stock									
Acquisition of land	-	19,249,740.1	-	248,502,844.8	…	…	…	…	267,752,584.9
Reclassifications	…	…	…	…	…	…	…	…	-
Total additions to stock	-	19,249,740.1	-	248,502,844.8	-	-	-	-	267,752,584.9
Reductions in stock									
Disposal of land	540,839.2	23,804,736.8	-	-	-	…	…	…	24,345,576.0
Reclassifications	…	…	…	…	…	…	…	…	-
Total reductions in stock	540,839.2	23,804,736.8	-	-	-	-	-	-	24,345,576.0
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	33,524,532,957.3	38,164,226,660.1	…	1,051,685,609,911.6	…	…	…	…	1,123,374,369,529.0

Note: (…) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 27
Monetary Asset Account for Land, CAR: 2005 (in Pesos)

| | | | Types of land use | | | | | |
	Agriculture	Forestry	Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
Opening value of stock of land	33,524,532,957.3	38,164,226,660.1	...	1,051,685,609,911.6	...	...	...	...	1,123,374,369,529.0
Additions to stock									
Acquisition of land	-	40,563,666.8	-	338,637,980.4	...	...	...	...	379,201,647.2
Reclassifications	...	...	...	...	...	...	...	...	-
Total additions to stock	-	40,563,666.8	-	338,637,980.4	-	-	-	-	379,201,647.2
Reductions in stock									
Disposal of land	737,008.4	62,051,165.5	-	-	...	...	...	...	62,788,174.0
Reclassifications	...	...	...	...	...	...	...	...	-
Total reductions in stock	737,008.4	62,051,165.5	-	-	-	-	-	-	62,788,174.0
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	33,523,795,948.9	38,142,739,161.4	...	1,052,024,247,892.0	...	...	...	...	1,123,690,783,002.3

Note: (…) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 28
Monetary Asset Account for Land, CAR: 2006 (in Pesos)

| | | | Types of land use | | | | | |
	Agriculture	Forestry	Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
Opening value of stock of land	33,523,795,948.9	38,142,739,161.4	...	1,052,024,247,892.0	...	...	...	...	1,123,690,783,002.3
Additions to stock									
Acquisition of land	-	32,978,981.2	-	332,564,783.1	...	...	...	...	365,543,764.3
Reclassifications	...	...	...	...	...	...	...	...	-
Total additions to stock	-	32,978,981.2	-	332,564,783.1	-	-	-	-	365,543,764.3
Reductions in stock									
Disposal of land	723,790.8	139,194,214.6	-	-	...	...	...	...	139,918,005.4
Reclassifications	...	...	...	...	...	...	...	...	-
Total reductions in stock	723,790.8	139,194,214.6	-	-	-	-	-	-	139,918,005.4
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	33,523,072,158.1	38,036,523,928.0	...	1,052,356,812,675.0	...	...	...	...	1,123,916,408,761.2

Note: (…) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 29
Monetary Asset Account for Land, CAR: 2007 (in Pesos)

	Agriculture	Forestry	Types of land use				Land not in use	Inland water	Total
			Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.			
Opening value of stock of land	33,523,072,158.1	38,036,523,928.0	…	1,052,356,812,675.0	…	…	…	…	1,123,916,408,761.2
Additions to stock									
Acquisition of land	-	139,020,567.1	-	113,539,164.2	…	…	…	…	252,559,731.3
Reclassifications	…	…	…	…	…	…	…	…	-
Total additions to stock	-	139,020,567.1	-	113,539,164.2	-	-	-	-	252,559,731.3
Reductions in stock									
Disposal of land	247,105.5	21,177,240.5	-	-	-	…	…	…	21,424,346.0
Reclassifications	…	…	…	…	…	…	…	…	-
Total reductions in stock	247,105.5	21,177,240.5	-	-	-	-	-	-	21,424,346.0
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	33,522,825,052.6	38,154,367,254.6	…	1,052,470,351,839.2	…	…	…	…	1,124,147,544,146.4

Note: (…) Data not available
(-) Nil or zero

Source: PSA-RSSO CAR

Appendix Table 30
Monetary Asset Account for Land, CAR: 2008 (in Pesos)

	Agriculture	Forestry	Types of land use				Land not in use	Inland water	Total
			Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.			
Opening value of stock of land	33,522,825,052.6	38,154,367,254.6	…	1,052,470,351,839.2	…	…	…	…	1,124,147,544,146.4
Additions to stock									
Acquisition of land	-	208,338,833.3	-	675,895,688.6	…	…	…	…	884,234,521.9
Reclassifications	…	…	…	…	…	…	…	…	-
Total additions to stock	-	208,338,833.3	-	675,895,688.6	-	-	-	-	884,234,521.9
Reductions in stock									
Disposal of land	1,471,012.9	12,058,912.9	-	-	-	…	…	…	13,529,925.7
Reclassifications	…	…	…	…	…	…	…	…	-
Total reductions in stock	1,471,012.9	12,058,912.9	-	-	-	-	-	-	13,529,925.7
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	33,521,354,039.7	38,350,647,175.1	…	1,053,146,247,527.8	…	…	…	…	1,125,018,248,742.6

Note: (…) Data not available
(-) Nil or zero

Source: PSA-RSSO CAR

Appendix Table 31
Monetary Asset Account for Land, CAR: 2009 (in Pesos)

	Types of land use								
	Agriculture	Forestry	Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
Opening value of stock of land	33,521,354,039.7	38,350,647,175.1	…	1,053,146,247,527.8	…	…	…	…	1,125,018,248,742.6
Additions to stock									
Acquisition of land	-	627,600,674.2	2,897,919.4	266,130,961.4	…	…	…	…	896,629,555.0
Reclassifications	…	…	…	…	…	…	…	…	-
Total additions to stock	-	627,600,674.2	2,897,919.4	266,130,961.4	-	-	-	-	896,629,555.0
Reductions in stock									
Disposal of land	1,197,462.5	14,446,574.4	-	-	-	…	…	…	15,644,036.9
Reclassifications	…	…	…	…	…	…	…	…	-
Total reductions in stock	1,197,462.5	14,446,574.4	-	-	-	-	-	-	15,644,036.9
Revaluations	26,433,477,217.4	20,154,594,607.7	65,067,887.8	- 142,055,613,722.1	-	-	-	-	- 95,402,474,009.3
Closing value of stock of land	59,953,633,794.5	59,118,395,882.6	67,965,807.2	911,356,764,767.1	-	-	-	…	1,030,496,760,251.5

Note: (…) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 32
Monetary Asset Account for Land, CAR: 2010 (in Pesos)

	Types of land use								
	Agriculture	Forestry	Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
Opening value of stock of land	59,953,633,794.5	59,118,395,882.6	67,965,807.2	911,356,764,767.1	…	…	…	…	1,030,496,760,251.5
Additions to stock									
Acquisition of land	-	182,648,135.0	-	5,674,555.3	…	…	…	…	188,322,690.3
Reclassifications	…	…	…	…	…	…	…	…	-
Total additions to stock	-	182,648,135.0	-	5,674,555.3	-	-	-	-	188,322,690.3
Reductions in stock									
Disposal of land	26,231.1	709,746,801.8	3,656,512.8	-	-	…	…	…	713,429,545.7
Reclassifications	…	…	…	…	…	…	…	…	-
Total reductions in stock	26,231.1	709,746,801.8	3,656,512.8	-	-	-	-	-	713,429,545.7
Revaluations	1,652,322,241.6	7,358,963,799.5	-	187,054,980.7	-	-	-	-	9,198,341,021.8
Closing value of stock of land	61,605,929,805.1	65,950,261,015.2	64,309,294.4	911,549,494,303.2	-	-	-	…	1,039,169,994,417.9

Note: (…) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 33
Monetary Asset Account for Land, CAR: 2011 (in Pesos)

	Agriculture	Forestry	Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
Opening value of stock of land	61,605,929,805.1	65,950,261,015.2	64,309,294.4	911,549,494,303.2	...	...	...	...	1,039,169,994,417.9
Additions to stock									
Acquisition of land	48,498,669.7	379,502,341.0	2,227,211.8	101,248,942,248.3	...	...	...	...	101,679,170,470.8
Reclassifications	...	...	...	...	...	...	...	...	-
Total additions to stock	48,498,669.7	379,502,341.0	2,227,211.8	101,248,942,248.3	-	-	-	-	101,679,170,470.8
Reductions in stock									
Disposal of land	-	3,001,922.9	-	-	-	-	-	-	3,001,922.9
Reclassifications	...	...	...	...	...	...	...	...	-
Total reductions in stock	-	3,001,922.9	-	-	-	-	-	-	3,001,922.9
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	61,654,428,474.8	66,326,761,433.2	66,536,506.2	1,012,798,436,551.5	...	...	...	...	1,140,846,162,965.8

Note: (…) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 34
Monetary Asset Account for Land, CAR: 2012 (in Pesos)

	Agriculture	Forestry	Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
Opening value of stock of land	61,654,428,474.8	66,326,761,433.2	66,536,506.2	1,012,798,436,551.5	...	...	...	...	1,140,846,162,965.8
Additions to stock									
Acquisition of land	954,121,143.0	531,182,939.3	1,584,257.6	72,798,660,265.4	...	...	...	...	74,285,548,605.3
Reclassifications	...	...	...	...	...	...	...	...	-
Total additions to stock	954,121,143.0	531,182,939.3	1,584,257.6	72,798,660,265.4	-	-	-	-	74,285,548,605.3
Reductions in stock									
Disposal of land	-	3,040,099.9	-	-	-	-	-	-	3,040,099.9
Reclassifications	...	...	...	...	...	...	...	...	-
Total reductions in stock	-	3,040,099.9	-	-	-	-	-	-	3,040,099.9
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	62,608,549,617.8	66,854,904,272.7	68,120,763.8	1,085,597,096,816.9	...	...	...	...	1,215,128,671,471.2

Note: (…) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 35
Monetary Asset Account for Land, CAR: 2013 (in Pesos)

	Types of land use								
	Agriculture	Forestry	Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
Opening value of stock of land	62,608,549,617.8	66,854,904,272.7	68,120,763.8	1,085,597,096,816.9	...	...	...	...	1,215,128,671,471.2
Additions to stock									
Acquisition of land	1,737,194,291.8	1,608,153,477.2	1,200,335.3	174,089,777,857.6	...	...	...	...	177,436,325,961.9
Reclassifications	...	...	...	...	...	...	...	...	-
Total additions to stock	1,737,194,291.8	1,608,153,477.2	1,200,335.3	174,089,777,857.6	-	-	-	-	177,436,325,961.9
Reductions in stock									
Disposal of land	-	69,995,677.1	-	-	...	...	...	...	69,995,677.1
Reclassifications	...	...	...	...	...	...	...	...	-
Total reductions in stock	-	69,995,677.1	-	-	-	-	-	-	69,995,677.1
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	64,345,743,909.6	68,393,062,072.8	69,321,099.1	1,259,686,874,674.5	...	...	...	...	1,392,495,001,756.0

Note: (...) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 36
Monetary Asset Account for Land, CAR: 2014 (in Pesos)

	Types of land use								
	Agriculture	Forestry	Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
Opening value of stock of land	64,345,743,909.6	68,393,062,072.8	69,321,099.1	1,259,686,874,674.5	...	...	...	...	1,392,495,001,756.0
Additions to stock									
Acquisition of land	726,437,925.4	1,419,750,092.4	-	95,615,521,313.5	...	...	...	...	97,761,709,331.4
Reclassifications	...	...	...	...	...	...	...	...	-
Total additions to stock	726,437,925.4	1,419,750,092.4	-	95,615,521,313.5	-	-	-	-	97,761,709,331.4
Reductions in stock									
Disposal of land	-	151,282,698.9	1,016,468.9	-	...	...	...	...	152,299,167.8
Reclassifications	...	...	...	...	...	...	...	...	-
Total reductions in stock	-	151,282,698.9	1,016,468.9	-	-	-	-	-	152,299,167.8
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	65,072,181,835.0	69,661,529,466.4	68,304,630.2	1,355,302,395,988.0	...	...	...	...	1,490,104,411,919.6

Note: (...) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 37
Monetary Asset Account for Land, CAR: 2015 (in Pesos)

				Types of land use					
	Agriculture	Forestry	Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
Opening value of stock of land	65,072,181,835.0	69,661,529,466.4	68,304,630.2	1,355,302,395,988.0	...	...	...	...	1,490,104,411,919.6
Additions to stock									
Acquisition of land	1,010,335,510.2	1,057,738,335.0	-	4,860,206,296.7	...	...	...	...	6,928,280,141.9
Reclassifications	...	...	...	...	...	...	...	...	-
Total additions to stock	1,010,335,510.2	1,057,738,335.0	-	4,860,206,296.7	...	...	...	-	6,928,280,141.9
Reductions in stock									
Disposal of land	-	166,257,277.5	2,640,043.9	-	...	...	...	...	168,897,321.4
Reclassifications	...	...	...	...	...	...	...	...	-
Total reductions in stock	-	166,257,277.5	2,640,043.9	-	-	-	-	-	168,897,321.4
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	66,082,517,345.2	70,553,010,523.9	65,664,586.3	1,360,162,602,284.7	...	...	...	...	1,496,863,794,740.1

Note: (…) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 38
Monetary Asset Account for Land, CAR: 2016 (in Pesos)

				Types of land use					
	Agriculture	Forestry	Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
Opening value of stock of land	66,082,517,345.2	70,553,010,523.9	65,664,586.3	1,360,162,602,284.7	...	...	...	...	1,496,863,794,740.1
Additions to stock									
Acquisition of land	-	1,444,214,778.7	3,197,425.0	66,568,243.8	...	...	...	...	1,513,980,447.5
Reclassifications	...	...	...	...	...	...	...	...	-
Total additions to stock	-	1,444,214,778.7	3,197,425.0	66,568,243.8	...	...	...	-	1,513,980,447.5
Reductions in stock									
Disposal of land	307,717.1	373,118,274.4	-	-	...	...	...	...	373,425,991.6
Reclassifications	...	...	...	...	...	...	...	...	-
Total reductions in stock	307,717.1	373,118,274.4	-	-	-	-	-	-	373,425,991.6
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	66,082,209,628.1	71,624,107,028.2	68,862,011.3	1,360,229,170,528.5	...	...	...	...	1,498,004,349,196.0

Note: (…) Data not available
(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 39
Monetary Asset Account for Land, CAR: 2017 (in Pesos)

	Agriculture	Forestry	Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
				Types of land use					
Opening value of stock of land	66,082,209,628.1	71,624,107,028.2	68,862,011.3	1,360,229,170,528.5	…	…	…	…	1,498,004,349,196.0
Additions to stock									
Acquisition of land	-	1,410,789,676.0	-	30,173,020.7	…	…	…	…	1,440,962,696.7
Reclassifications	…	…	…	…	…	…	…	…	-
Total additions to stock	-	1,410,789,676.0	-	30,173,020.7	-	-	-	-	1,440,962,696.7
Reductions in stock									
Disposal of land	139,477.3	65,775,897.1	2,843,568.9	-	…	…	…	…	68,758,943.3
Reclassifications	…	…	…	…	…	…	…	…	-
Total reductions in stock	139,477.3	65,775,897.1	2,843,568.9	-	-	-	-	-	68,758,943.3
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	66,082,070,150.8	72,969,120,807.0	66,018,442.4	1,360,259,343,549.2	…	…	…	…	1,499,376,552,949.4

Note: (…) Data not available

(-) Nil or zero
Source: PSA-RSSO CAR

Appendix Table 40
Monetary Asset Account for Land, CAR: 2018 (in Pesos)

	Agriculture	Forestry	Land use for aquaculture	Use of built-up and related areas	Land use for maintenance and restoration of environmental functions	Other uses of land n.e.c.	Land not in use	Inland water	Total
				Types of land use					
Opening value of stock of land	66,082,070,150.8	72,969,120,807.0	66,018,442.4	1,360,259,343,549.2	…	…	…	…	1,499,376,552,949.4
Additions to stock									
Acquisition of land	-	1,171,299,102.7	-	45,163,401.5	…	…	…	…	1,216,462,504.2
Reclassifications	…	…	…	…	…	…	…	…	-
Total additions to stock	-	1,171,299,102.7	-	45,163,401.5	-	-	-	-	1,216,462,504.2
Reductions in stock									
Disposal of land	208,771.5	225,088,308.8	-	-	…	…	…	…	225,297,080.3
Reclassifications	…	…	…	…	…	…	…	…	-
Total reductions in stock	208,771.5	225,088,308.8	-	-	-	-	-	-	225,297,080.3
Revaluations	-	-	-	-	-	-	-	-	-
Closing value of stock of land	66,081,861,379.3	73,915,331,600.9	66,018,442.4	1,360,304,506,950.7	…	…	…	…	1,500,367,718,373.3

Note: (…) Data not available

(-) Nil or zero
Source: PSA-RSSO CAR

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