



Philippine Forests At A Glance



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Forests are among the most valuable natural resources in the Philippines. They provide a range of ecosystem services, ranging from the provision of food crops, livestock and fish to providing recreational experiences. In 2013, the forestry sector contributed PhP5.26 billion (0.12%) to the national gross domestic product (GDP) (2014 Philippine Statistical Yearbook). Forests also serve as significant carbon sink and are vital for biological conservation and environmental protection, locations for education and research, habitat for indigenous flora and fauna, and resettlement areas. According to the National Commission on Indigenous Peoples (NCIP), forests serve as home to some 12-15 million indigenous peoples and provide livelihood to many families.

Forest Defined. The Forest Management Bureau (FMB) of the Department of Environment and Natural Resources (DENR) defines “forest” as land with an area of more than 0.5 hectare and tree crown cover¹ (or equivalent stocking level) of more than 10 percent. The trees should be able to reach a minimum height of 5 meters at maturity *in situ* (original position/location). A forest consists of either *closed forest formations* where trees of various storeys and undergrowth cover a high proportion of the ground or *open forest formations* with a continuous vegetation cover in which tree crown cover exceeds 10 percent. Young natural stands and all plantations established for forestry purposes, which have yet to reach a crown density of more than 10 percent or tree height of 5 meters are included under forest.

Forest Cover. In 1934, forests comprised more than half (57%) of the country’s total land area. In 2010, the forest cover has gone down to 23 percent or about 6.8 million hectares mainly due to increasing agricultural and housing needs, commercial and illegal logging, and *kaingin* and forest fires.² The extensive deforestation and degradation are brought about by the inequitable land distribution, insecure tenure and rural poverty in the country. However, due to intensified reforestation efforts of the government, the private sector and civil society, as well as the enactment in 1992 of Republic Act No. 7858 or the National Integrated Protected Areas System (NIPAS), more than 200,000 hectares were reforested from 2000 to 2008, the largest being in 2008, with about 43,610 hectares (Philippine Development Plan 2011-2016).

Figure 1. Philippine Forest Cover, 1934-2010



Source: World Bank (2009) and Forest Management Bureau (2012)

¹ Tree crown cover refers to the area covered by the living branches and foliage of trees. It is often expressed as a percentage of total land area.

² Forest cover data inventory is done every four (4) years given the high cost of satellite imaging and period of ground validation. The 2014 data is currently being validated and will be released by 2016. Further, annual increment in forest cover is also minimal to capture a significant trend.

Based on the 2010 satellite imageries released by the National Mapping and Resource Information Authority (NAMRIA), open forest accounted for 68 percent (4.595 million hectares) of the total forest cover in the Philippines, 28 percent are closed forest while the rest are mangrove.

The top three regions with the highest forest cover are Region 2 with 1.04 million hectares, followed by Region 4-B and the Cordillera Administrative Region (CAR). The largest area on tree plantations is in Region 4-B while most of the mangrove forests are found in the Autonomous Region in Muslim Mindanao (ARMM).

Among the ten member states of the Association of Southeast Asian Nations (ASEAN), only the Philippines and Vietnam registered positive increase in terms of forest cover from 1990 to 2010 with 16.7 percent and 47.4 percent, respectively (FMB).

Reforestation. In response to the substantial deforestation in the past decades, large-scale reforestation and rehabilitation programs and activities were implemented in the country. Activities ranged from traditional large-scale government reforestation projects and industrial tree plantations to contract reforestation, community-based initiatives, integrated development and livelihood projects, agroforestry, and private tree farming (Center for International Forestry Research, 2003).

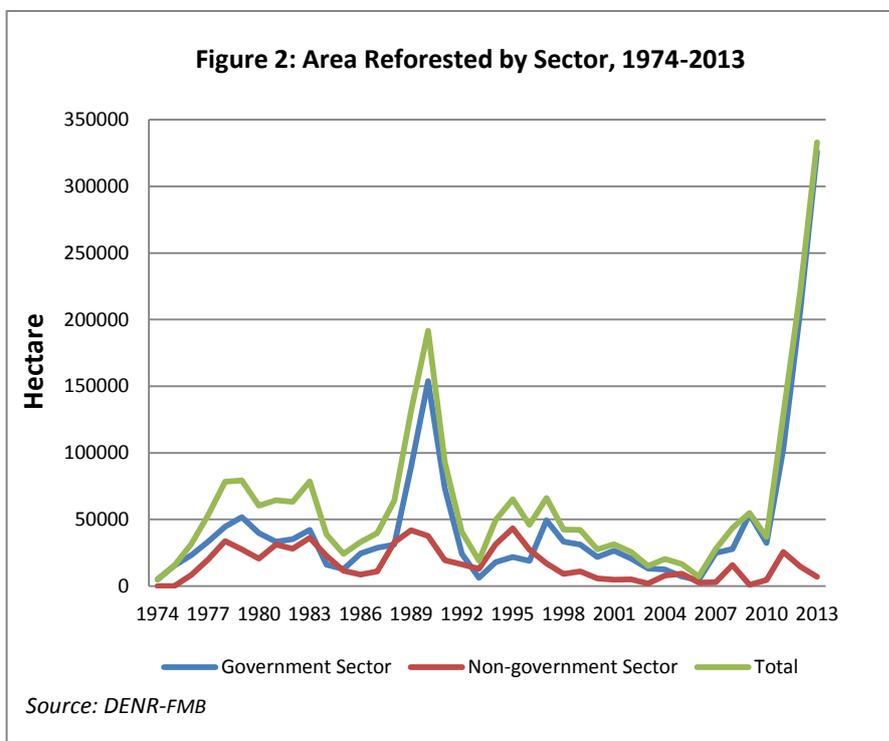
Data from the DENR-FMB show that reforested area in the Philippines generally grew from 1974 to 2013. Of the said areas, most of the reforestation was done by the government sector led

by the DENR (73%) while 27 percent is contributed by the non-government sector, which includes timber licensees, holders of forest tenurial instruments and other private organizations.

Table 1. Philippine Forest Cover, by Region, 2010 (in area hectares)

Region	Closed Forest	Open Forest	Mangrove	Total Forest
National Capital Region (NCR)	0	2,098	115	2,214
CAR	255,553	517,640	0	773,191
Region 1 (Ilocos Region)	18,390	105,060	1,028	124,477
Region 2 (Cagayan Valley)	485,262	553,344	5,902	1,044,507
Region 3 (Central Luzon)	225,352	294,291	955	520,598
Region 4-A (CALABARZON)	69,544	181,175	18,937	269,656
Region 4-B (MIMAROPA)	97,810	744,530	73,324	915,664
Region 5 (Bicol Region)	39,646	143,416	24,953	208,015
Region 6 (Western Visayas)	67,167	110,146	10,006	187,319
Region 7 (Central Visayas)	11,464	35,798	14,804	62,065
Region 8 (Eastern Visayas)	45,948	426,863	41,654	514,464
Region 9 (Zamboanga Peninsula)	29,906	120,488	26,523	176,918
Region 10 (Northern Mindanao)	173,962	197,517	6,379	377,858
Region 11 (Davao Region)	160,083	265,754	2,879	428,716
Region 12 (SOCCSKSARGEN)	54,247	193,202	1,601	249,050
Region 13 (CARAGA)	99,812	557,402	25,898	683,112
ARMM	99,889	557,402	55,574	301,894
PHILIPPINES	1,934,032	4,595,154	310,531	6,839,718

Source: FMB Philippine Forestry Statistics



From 2010 onwards, a huge increase in reforestation was observed with the implementation of the National Greening Program (NGP)³. As of March 2015, 1.01 million hectares or 85 percent of target forest area have been planted with around 602.7 million seedlings. However, the number of seedlings planted is way below the target level. The program aims to plant 1.5 billion trees or about 1,000 trees per hectare. At present, only around 593 trees per hectare have been planted.

Table 2. NGP Annual Accomplishment, 2011-2015Q1

Year	Target Area (ha)	Area Planted	Percent Accomplishment of Area Planted	Number of Seedlings Planted
2011	100,000	128,558	129%	89,624,121
2012	200,000	221,763	111%	125,596,730
2013	300,000	333,160	111%	182,548,862
2014	300,000	321,532	107%	195,069,446
2015 Q1	300,000	9,904	-	9,889,693
Total (as of March 2015)	1,200,000	1,014,917	85%	602,728,852

Source : DENR-FMB

In addition, the survival rate of the seedlings planted has been below target. The NGP expected an 85 percent survival rate, but in the 2013 Audit Report of the Commission on Audit (COA), it was noted that the survival rate for seedlings planted based on the sample area surveyed was only 68 percent.

Moving Forward. A 2013 Philippine Institute for Development Studies (PIDS) study entitled “Assessment of the Efficiency and Effectiveness of the Reforestation Program of the DENR” recommends that reforestation programs should be complemented with sufficient monitoring aside from adequate financial and manpower resources. This is to assess whether the program components and activities are effective or not, and if necessary, implement changes and employ measures to sustain their effectivity.

The study also calls for the review of the issuance of Executive Order No. 23 last February 1, 2011, which declared a moratorium on the cutting and harvesting of timber in natural and residual forests nationwide. While it substantially reduced the illegal logging hotspots in the country, it may have also resulted in the loss of public revenues, incomes and employment in the logging industry. With the imposition of the log ban, subsistence upland dwellers may also swarm the forests and indiscriminately cut trees as concessionaires abandon the areas they once protected. Intensive quantitative and qualitative impact analyses of EO 23 along with other policies should be conducted to see whether or not these policies should be continued, amended or abolished (Israel, 2013).

In the Senate of the 16th Congress, a number of legislative measures have been filed to protect and develop the forestry sector. Nine bills (Senate Bill Nos. 30, 45, 520, 531, 675, 1093, 1094, 1644, and 2200) are filed on sustainable forest management and on tree planting, five bills (SBNs 142, 171, 769, 1308 and 2237) on mangrove forest protection and preservation, four bills (SBNs 604, 786, 1101 and 1900) on delineating specific forest limits, and the substitute bill (SBN 2712) on the proposed Expanded NIPAS Act of 2015 providing for the sustainable development and management of protected areas in the country. The enactment of these legislative proposals would help in the protection, conservation, utilization, development and sustainable management of the country’s forest resources.

The passage of a national land use policy (SBNs 7, 53 and 150), which has long been proposed, is also warranted to address deforestation activities. The overlapping and conflicting national laws on land use results in the competing uses of forest resources without regulation. Hence, it is high time to rationalize land use planning in the country and put in order the national laws on land uses (such as prime agricultural land, agrarian reform, protected areas, ancestral domain, fisheries, forestry, mining and housing) that are sector specific.

³ The NGP is a massive forest rehabilitation program of the government established by virtue of Executive Order No. 26 issued on February 24, 2011 by President Benigno S. Aquino III. It seeks to grow 1.5 billion trees in 1.5 million hectares nationwide within a period of six years, from 2011 to 2016.