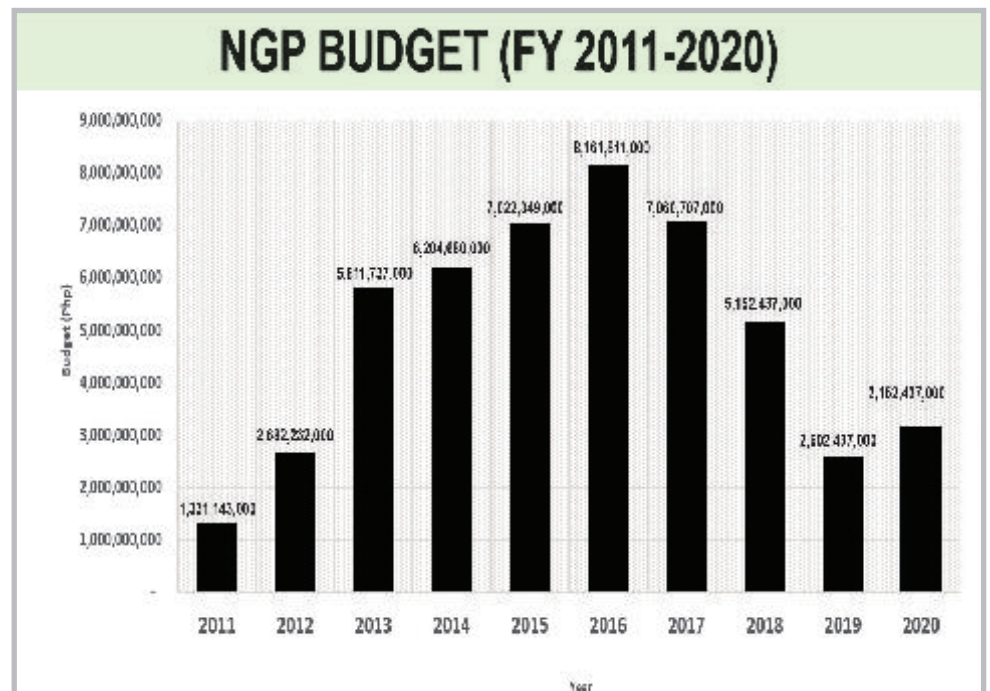


ENHANCED NATIONAL GREENING PROGRAM



Bamboo Plantation Bgy Libo-o, Mabusao, Capiz (Region 6)

The government has been continuously providing budget for the implementation of National Greening Program (NGP) since CY 2011. As of December 2020, around PhP49B has already been allotted for the program to cover the remaining unproductive, denuded and degraded forestlands nationwide. As embodied in EO No. 193, series of 2015, the period of NGP implementation is extended from 2016 to 2028.



(Data Source: FMB)

Figure 7.1 Comparative NGP Budget from 2011-2020

For CY 2020, a total of PhP3.152B, out of the PhP5.152B proposed budget as per FY 2020 National Expenditure Program (NEP), was approved and provided by the government. With sustained fund support from the government, the following significant accomplishments have been achieved under the Program:



Generated a total of 367,195 jobs and directly employed 55,141 individuals. The program's contribution to employment is particularly important in rural and upland communities, where forest-related work is often the main source of their livelihood and income.



At least 37.2 million seedlings of various commodities were planted on 47,299 hectares of denuded forestlands

On Bamboo Rehabilitation Project, a total of 16,856 hectares have been planted with 3.3M bamboo culms



Maintained and protected a total of 205,897 hectares of NGP plantations established from CY 2018-2020. Activities like ring weeding, replacement of dead seedlings, patrol works, fireline/firebreak establishment and maintenance being done to ensure high survival of the planted seedlings



Assessed and mapped 72,295 hectares of potential areas for development through Survey, Mapping and Planning (SMP)



Prepared 61 Reforestation Plans



Hired 1,083 Forest Extension Officers to provide technical assistance and extension services to POs in the implementation of the program



Maintained 75 Seed Production Areas/Individual Plus Trees (SPAs/IPTs)



Maintained 22 Clonal Nurseries producing a total of 539,678 high quality planting materials



Maintained 11 Modernized and Mechanized Forest Nurseries (MMFNs) producing a total of 15.05 million seedlings



Procured 144 units of drone and 143 units of IPAD mini for monitoring and inspection work

Continuous Reforestation of denuded forestlands as embodied in Executive Order No. 193, Series of 2015

With the implementation of Department of Budget and Management (DBM) National Budget Circular No. 580, "Adoption of Economy Measures in the Government due to the Emergency Health Sanitation", which effected a 10% reduction of the approved GAA allotment, the Department operated with an adjusted budget allotment for the program amounting to Php3.152B.

Nationwide, a total of 47,299 hectares have been planted out of the total annual target of 46,907 hectares for CY 2020, posting a 100% accomplishment rate. The planted area utilized a total of 37,206,581 seedlings of various commodities. The reforestation efforts under ENGP resulted in the planting of 23% of the area of denuded forestlands in the past 10 years since CY 2010.

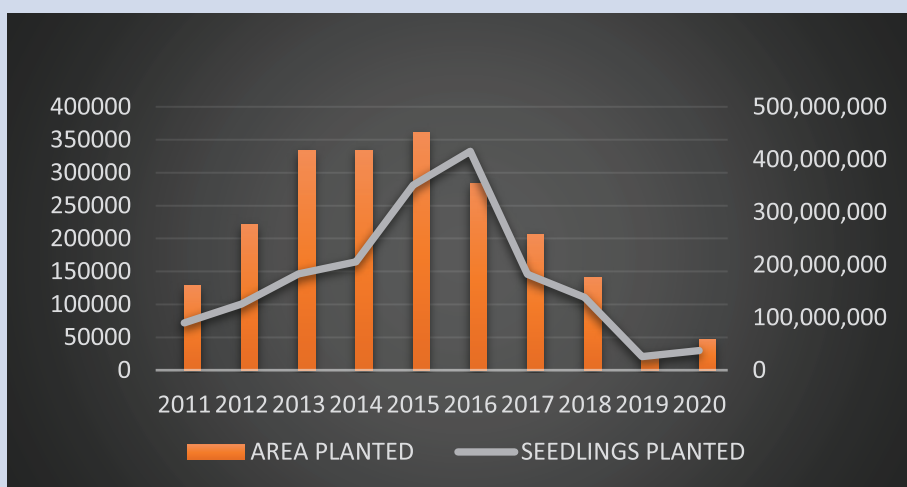


Figure 7.2 Area Planted and number of seedlings planted, CY 2011-2020

YEAR	AREA PLANTED	SEEDLINGS PLANTED
2011	128,558	89,624,121
2012	221,763	125,596,730
2013	333,160	182,548,862
2014	334,302	205,414,639
2015	360,357	351,014,239
2016	284,089	415,564,211
2017	206,136	182,185,530
2018	141,310	138,020,616
2019	21,925	25,851,359
2020	47,299	37,206,581
TOTAL	2,078,899	1,753,026,888

(Data Source: (FMB))



Figure 7.3 CY 2016 Timber Plantation; Hinoba-an Survivor Community Association (Hinobaan, Negros Occidental)



Figure 7.4 CY 2018 Rubber Plantation; Binoni CBFM Farmers Association (Zamboanga del Norte)



Figure 7.5 CY 2017 Benguet Pine Plantation; Brgy. Mabalite Binnadang Association, Inc. (Mabalite, Tadian, Mt. Province)



Figure 7.6 CY 2015 Bakauan Plantation (Mangrove); Pabanog Farmers and Fisherfolks Association (Paranas, Samar)



Figure 7.7 CY 2011 Agoho Plantation; Brgy. Council of Sta. Rita Central (Brgy. Sta. Rita Central, Agoo, La Union)



Figure 7.8 CY 2018 Coffee Plantation; Small Community of United Farmers Association Rainforest Management (Malitbog, Bukidnon)



Figure 7.9 CY 2019 Mangkono Plantation (Indigenous); Tabok Socorro Farmers Association Inc. (TSFAI) (Socorro, Surigao del Norte)

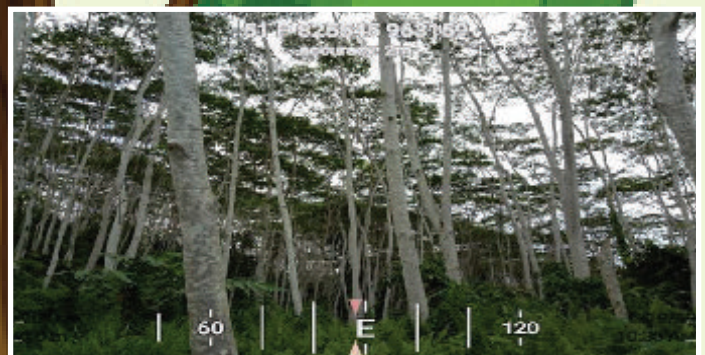


Figure 7.10 CY 2014 Falcata Plantation; Mabuhay Timberland Farmers Multipurpose Cooperative (Brgy. Los Arcos, Prosperidad, Agusan del Sur)

NGP ACCOMPLISHMENT (2011-2020)



(Data Source: FMB)

Shifting to Bamboo Plantation Under the Flagship Reforestation Program

The Department vowed to increase bamboo seedlings planting under the NGP from 20 percent to at least 40 percent. The Secretary's preference for bamboo as a rehabilitation tool and promotion of engineered bamboo as an alternative to lumber was supported by the Department of Trade and Industry (DTI), citing the economic importance of bamboo.

From 2011 to 2020, about 21.6 M of bamboo planting materials have been planted in 101,370 hectares of denuded forestlands

Economically-important bamboo species:

- Kauayan Tinik (*Bambusa blumeana*);
- Kiling (*Bambusa vulgaris*);
- Bayog (*Dendrocalamus merrillianus*);
- Laak (*Bambusa philippinensis*);
- Giant Bamboo (*Dendrocalamus asper*);
- Bolo (*Gigantochloa levis*);
- Kayali (*Gigantochloa atter*);
- Buho (*Schizostachyum lumampao*)

BAMBOO as priority species



Reasons:

- Known before as poor man's timber
- Fast growing
- Resilient
- Good soil erosion control
- Good water harvester
- Can absorb up to 12 tons of carbon dioxide per hectare per year



Figure 7.11 Potted bamboo culms and branch cuttings, Barangay Local Government Unit of Libertad, San Mariano, Isabela

Supporting Economic Development and Job Creation



Figure 7.12 Potting and sowing of seeds, PO Tuod Farmers Cooperative, Initao, Misamis Oriental (Region 10)



Figure 7.13 Preparation of bamboo planting stocks for hauling to the planting sites, PO Katipunan United Farmers Association (Region 10)

Generated a total of 367,195 jobs and employed 55,141 individuals in seedling production, plantation establishment and maintenance and protection. In total, around 5,632,416 jobs have been created and 806,467 individuals have been employed in NGP since CY 2011.

Gender disaggregation for CY 2014-2020



460,790



177,485

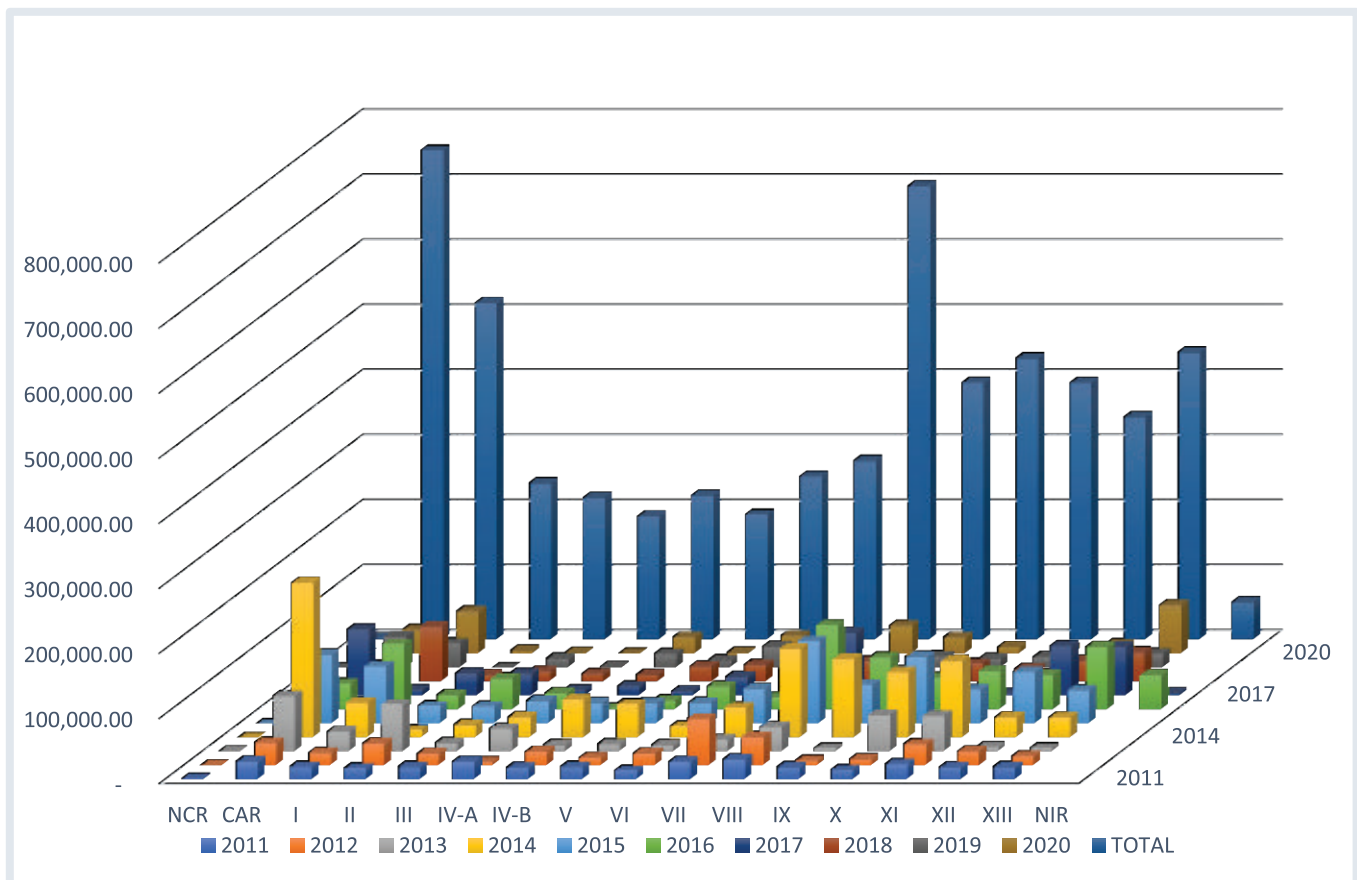


Figure 7.14 Jobs generated from CY 2011 to 2020

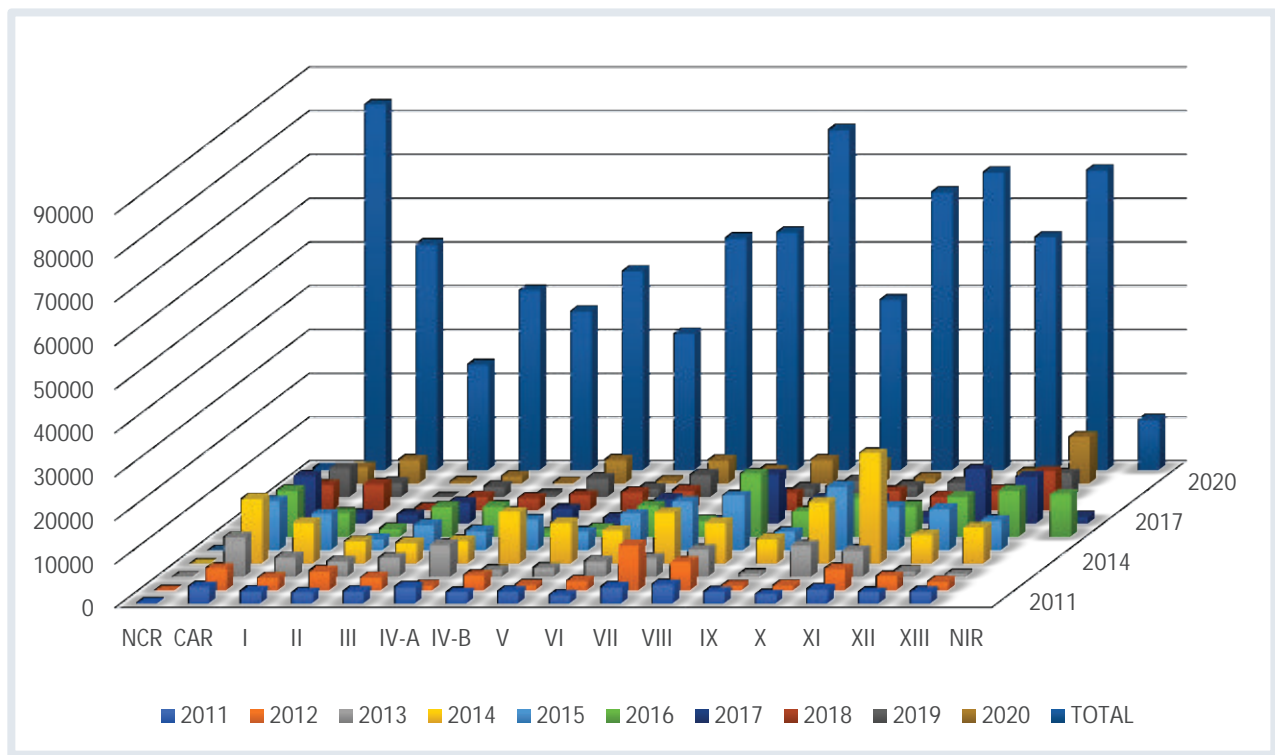


Figure 7.15 Persons employed from CY 2011 to 2020

Maximizing Available and Appropriate Science and Technology in Meeting the Increasing Demand for Seedlings

Available and appropriate science and technology is maximized to meet the increasing demand for seedlings every year. The continuous production of phenotypically and genetically-improved planting materials is among the priorities of the Department in order to ensure and meet the requirements for high quality seeds and seedlings necessary for the reforestation efforts of the government.



About 75 Seed Production Areas (SPAs)/Individual Plus Trees (IPTs) are being maintained nationwide. These SPAs serve as potential source of high-quality seeds and planting materials necessary for the reforestation effort of the government.

A total of 2,968 kilograms of seeds of various indigenous species was collected for the year.



Maintained 22 clonal nurseries. The maintenance and operationalization of these clonal nurseries resulted in the production of 539,678 high quality planting materials. The sustained operations of clonal nurseries ensure the production of quality planting materials, continuous supply of seedlings as well as preservation of indigenous species.



Produced a total of 15.05 million seedlings in 11 operating Modernized and Mechanized Forest Nurseries (MMFN).

These MMFNs produced almost 3,016,757 vegetable seedlings in support to the government's "Ahon Lahat, Pagkaing Sapat Laban sa COVID-19". Of this, a total of 2,359,374 vegetable crops/seedlings were distributed.

Strengthening Collaboration and Partnerships with the Business Groups, Private Sector, LGUs, NGOs, Civil Society, Academe and other Government Agencies

Aiming at increasing the country's forest cover, the Department is calling for an increased private sector participation in the ENGP. DAO 2019-03 provides the guidelines for private sector participation in the reforestation program. It allows the companies to enter into public-private partnership scheme through establishments of new ENGP plantations, maintenance and protection of existing plantations, and protection of existing forests outside ENGP areas.



Figure 7.16 The DENR in partnership with MMPC and SAFI

Mitsubishi Motors Philippines Corporation (MMPC)

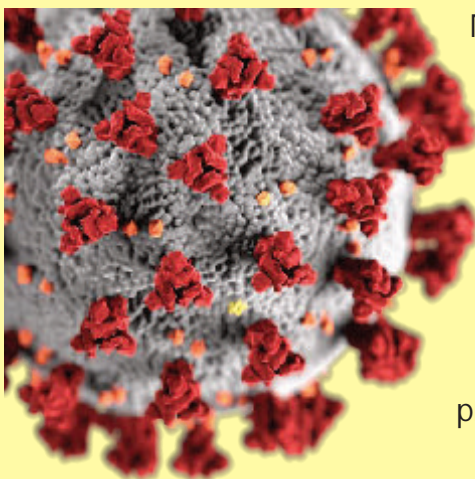
Reforestation of 30-hectare forestland at Barangay Kapatalan, Siniloan, Laguna



SteelAsia Foundation Inc (SAFI)

Reforestation of 23-hectare forestland at Barangay Dayawan, Villanueva, Misamis Oriental

Curbing the Impact of COVID-19 Pandemic



Notwithstanding COVID-19, remarkable accomplishments have been achieved by the Department in implementing the program. The accomplishments speak well of how the Department and its partners have carried out the ENGP in the face of challenges and constraints brought about by the pandemic.

The concerted efforts, coupled with the support and cooperation of all stakeholders led to the successful implementation and realization of objectives of the program.



Figure 7.17 Timber and Agricultural Production for the maintenance of MMFN

MMFN as growing areas for vegetables and other fruit crops, 2,359,374 vegetable seedlings were distributed to various communities.

Status of Forest Cover

Based on the land cover data released by the NAMRIA in 2015, the Philippine Forest Cover is 44.38 percent of the total forestland or equivalent to 7,014,152 million hectares.

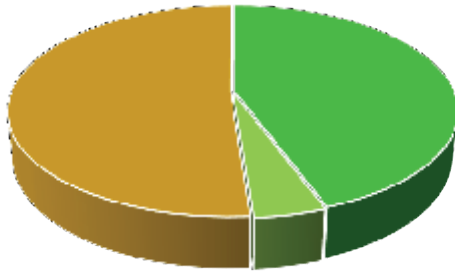


CLOSED FOREST: Formation where trees in various storey and undergrowth cover a high proportion (>40 percent) of the ground and do not have a continuous dense grass layer.

OPEN FOREST: Formations with discontinuous tree layer with coverage of at least 10% and less than 40%.

MANGROVE FOREST: Forested wetland growing along tidal mudflats and along shallow water coastal areas extending inland along rivers, streams and their tributaries where the water is generally brackish and composed mainly of bakauan, api-api, pototan, tangal, etc.

FOREST COVER WITHIN FORESTLAND
Area (in hectares)



- FORESTED (2015 FOREST COVER; 7.014M ha)
- NEW FOREST (NGP 2016-2020; 700,595 ha)
- REMAINING FOR REFORESTATION (8.09M ha)

With the sustained fund support from the government, about 4.43% of the denuded forestland have been planted and developed.

FOREST COVER WITHIN FORESTLAND Area (in hectares)		%
FORESTED (BASED ON 2015 FC DATA)	7,014,152	44.38
NEW FOREST (NGP 2016-2020)	700,759	4.43
REMAINING FORESTLAND FOR REFORESTATION	8,090,414	51.19
TOTAL	15,805,325	100

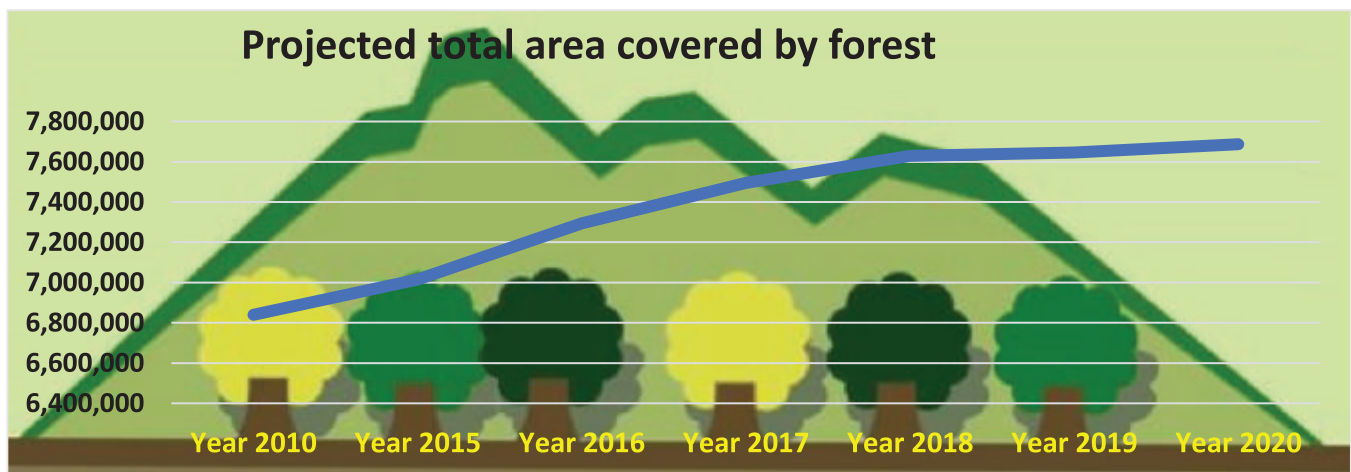
Yearly Projection on the Increase of Forest Cover including NGP plantations, CY 2016-CY 2020*

INDICATORS	BASELINE 2015	2016	2017	2018	2019	2020
Forest Cover	7,014,152	7,014,152	7,292,974	7,494,220	7,629,635	7,645,239
Area Planted under NGP		284,089	206,136	141,310	21,925	47,299
Area Logged based on the annual log production reports		5,267	4,890	5,895	6,321	5,250
Projected Total Area covered by Forest		7,292,974	7,494,220	7,629,635	7,645,239	7,687,288

* Projected increase in forest cover including NGP plantations

Assumptions:

- 30-meter resolutions
- Less area logged



(Data Source: FMB)

Ways Forward

Starting CY 2020, the mode of implementation of the NGP will focus on family approach. Family approach is engaging upland and rural families in the implementation of the NGP to contribute to the government's objective in providing additional income to families affected by the pandemic. Individual family contractors must meet the qualifications and standards set by the Department at the time of entering into the agreement. The Program covers single families and extended families. In addition, a single person living alone is considered a separate family.

It allows the Program implementers to engage a single or extended family to enter into an agreement with the Department, taking into consideration the rules and regulations provided under the Manual on Community Participation in Government Procurement.

The Department shall enter into a Letter of Agreement (LOA) with the family for a period of three (3) years to conduct various modes of site development in a parcel of forestland with an area of at least one (1) hectare and at most ten (10) hectares. Each family may be engaged in establishment of timber and non-timber plantations, establishment of agroforestry plantations, rehabilitation of forests using endemic timber and non-timber species, and beach forest and mangrove rehabilitation.

The Secretary's direction for 2020 onwards is to focus on planting bamboo under NGP. Bamboos allow harvesting of poles and have the ability to still remain intact for environmental and ecological purposes. Continuous harvesting of bamboo poles will improve the vigor of the clump and the remaining poles in the clump will continue to sequester carbon dioxide, generate oxygen, and reduce soil erosion. Bamboo can also be used as a substitute for timber to meet the wood demand of the country or as an augmentation to minimize the demand for timber. In the future, the Bureau sees engineered bamboo as a potential product that can replace the demand for wood in the country.

(Source: FMB)