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Working Paper

Assessment of the Efficiency and Effectiveness of the Reforestation Program of the Department of Environment and Natural Resources

PIDS Discussion Paper Series, No. 2013-22

Provided in Cooperation with:

Philippine Institute for Development Studies (PIDS), Philippines

Suggested Citation: Israel, Danilo C.; Lintag, Jeffrey H. (2013) : Assessment of the Efficiency and Effectiveness of the Reforestation Program of the Department of Environment and Natural Resources, PIDS Discussion Paper Series, No. 2013-22, Philippine Institute for Development Studies (PIDS), Makati City

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Philippine Institute for Development Studies
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**Assessment of the Efficiency and Effectiveness
of the Reforestation Program of the Department
of Environment and Natural Resources**

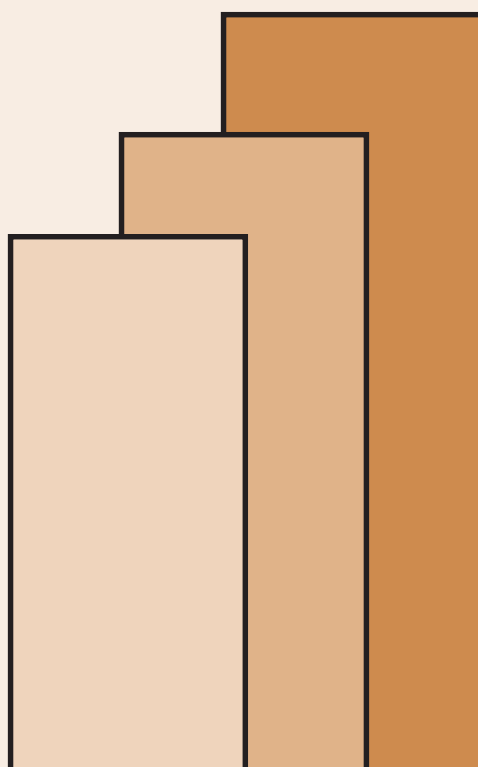
Danilo C. Israel and Jeffrey H. Lintag

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March 2013

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**Assessment of the Efficiency and Effectiveness of the Reforestation Program of
the Department of Environment and Natural Resources**

Danilo C. Israel and Jeffrey H. Lintag

Final Report



**Philippine Institute for Development Studies
March 2013**

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List of Acronyms

ACSM	Advocacy, Communication and Social Mobilization
ARMM	Autonomous Region of Muslim Mindanao
BFD	Bureau of Forest Development
CBFM	Community-Based Forest Management
CBFMA	Community-Based Forest Management Agreements
CCT	Conditional Cash Transfer
CENRO	Community Environment and Natural Resources Office
COA	Commission on Audit
CY	Calendar Year
DA	Department of Agriculture
DAR	Department of Agrarian Reform
DBM	Department of Budget and Management
DENR	Department of Environment and Natural Resources
DILG	Department of Interior and Local Government
DOE	Department of Energy
DOLE	Department of Labor and Employment
DSWD	Department of Social Welfare and Development
ECC	Environmental Compliance Certificate
EO	Executive Order
EP	Expert Panel
ERDB	Ecosystems Research and Development Bureau
EU	European Union
FGD	Focused Group Discussion
FMB	Forest Management Bureau
FSP	Forest Sector Projects
IAC	Inspection and Acceptance Committee
IEC	Information, Education and Communication
IFMA	Industrial Forest Management Agreements
IRR	Implementing Rules and Regulations
JRC	Joint Research Center
KII	Key Informant Interview
LGU	Local Government Unit
LOI	Letter of Instruction
M&E	Monitoring and Evaluation
MOA	Memorandum of Agreements
MPFD	Master Plan for Forestry Development
NAMRIA	National Mapping and Resource Information Authority
NFP	National Forestation Program
NGA	Non-Government Agencies
NGP	National Greening Program
NTWD	National Technical Working Group

PAO	Public Affairs Office
PAWB	Protected Areas and Wildlife Bureau
PCA	Philippine Coconut Authority
PD	Presidential Decree
PENRO	Provincial Environment and Natural Resources Office
PO	People's Organization
PPSO	Planning and Policy Office
PWPA	Philippine Wood Producers Association
R&D	Research and Development
RDC	Regional Development Councils
RECOFEM	Regional Councils for Forest Ecosystem Management
RED	Regional Executive Director
RTWG	Regional Technical Group
SEC	Securities and Exchange Commission
SFFI	Society of Filipino Foresters, Inc.
SIFMA	Socialised Industrial Forest Management Agreements
SMP	Survey, Mapping and Planning
SUC	State Universities and Colleges
TLA	Timber License Agreements
UDP	Upland Development Program
ZBB	Zero-Based Budgeting

Assessment of the Efficiency and Effectiveness of the Reforestation Program of the Department of Environment and Natural Resources

Danilo C. Israel and Jeffrey H. Lintag

Final Report

Abstract

The main purpose of the study was to determine if the reforestation program of the DENR over the years has been successful in attaining its stated objectives and in mitigating the adverse impacts of climate change on forest resources and the natural environment. The corollary goal was to develop recommendations to improve reforestation activities in light of the National Greening Program of the current administration. The study used secondary data generated from institutional sources and primary data gathered through key informant interviews and focus group discussions conducted in some selected NGP sites in the Caraga region in Mindanao.

In summary, the study found the following: a) At the national level, the reforestation program of the DENR has only partially attained its replanting targets; b) Also at the national level, it appears to have become relatively inefficient in the conduct of replanting activities over the years; and c) At the individual site level, it may have been effective to some degree in increasing incomes and livelihood opportunities, improving the natural resource and environmental situation and achieving the other objectives of reforestation in many areas. Based on the findings, some recommendations for improvements particularly related to the implementation of the NGP were put forward by the study. In conclusion, the study asserts that other than the infusion of sufficient financial and manpower resources, a reforestation program would have a better chance of attaining its objectives if its implementers can sufficiently monitor activities and effectively implement changes in operations to address the problems encountered.

Keywords

National Greening Program, Zero-Based Budgeting, Caraga Region, Department of Environment and Natural Resources, Reforestation, Reforestation Programs, Reforestation Laws

Assessment of the Efficiency and Effectiveness of the Reforestation Program of the Department of Environment and Natural Resources

Danilo C. Israel and Jeffrey H. Lintag¹

I. Introduction

In 2011, the Aquino administration instituted the ZBB approach of program evaluation for national budget decision-making. Through the ZBB, funding for existing programs that are not delivering their intended outcomes are either terminated or reduced. On the other hand, funding for those which are efficient and effective, particularly programs which directly and positively affect the welfare of the poor, are provided additional budgets.

In 2012, one of the programs that are assessed under the ZBB approach is the reforestation program of the DENR. For this purpose, this study is conducted. Its overall purpose is to determine if the reforestation program of the DENR over the years has been successful in attaining its stated objectives and in mitigating the adverse impacts of climate change on forest resources and the natural environment. A corollary goal of the study is to develop recommendations to improve ongoing and future reforestation activities especially in light of the National Greening Program (NGP) of the Aquino administration.

The specific objectives of the study are to: a) assess the accomplishment of the reforestation program of the DENR for the past 20 years and determine the causes of delays in its implementation, associated programs/projects implemented and implementation arrangements with other NGAs and LGUs; b) determine if the reforestation program has been implemented efficiently and effectively in achieving its objective(s) of conserving the forest ecosystem in mitigating the adverse effects of climate change in the environment; c) understand the NGP in terms of its coverage, modalities, annual targets and cost and see if it addresses the issues and problems identified in the reforestation program and the measures to ensure the success of the program; and d) assess existing plans for reforestation and other tree planting programs and suggest measures for improvement considering the annual targets and annual funding requirements of DENR out of the goal set under the NGP. The other particulars of the study are presented in the Terms of Reference (Appendix A).

II. Methodology

Framework of analysis

A simplified illustration of a forest resource specifically in terms of volume of trees per unit of time, e.g. one year, is presented below (Figure 1)². The opening stock

¹ The authors are Senior Research Fellow and former Senior Research Analyst, respectively of the Philippine Institute for Development Studies (PIDS), Makati City, Philippines. This final report was submitted in December 2012.

² In addition to the trees, a forestry resource has important biodiversity, carbon sequestration, water storage and other significant contributions which are not discussed in this model for simplicity purposes.

of the forest resource at the beginning of the period is increased by positive flows including natural growth, reforestation and other factors³. On the other hand, the forest resource is decreased by negative flows including natural mortality, harvests and other factors.

Figure 1: Simplified Illustration of a Forest Resource



Based on the above illustration, other things the same, for a reforestation program to enhance the ending stock of a forest resource, the attained level of reforestation per unit of time should be positive. Furthermore, for a reforestation program to be considered successful ex post, it should have been implemented efficiently and effectively so that its desired outcomes are attained or even surpassed.

It should be pointed out that in reality, other things are not the same and increasing the ending stock of forest resource per unit of time would not only require a positive level of reforestation. Among others, it also requires that the level of reforestation must be higher than the level of deforestation so that net reforestation at the end of the period is positive. This present assessment bypasses the issue of deforestation in the Philippines and concentrates only on the efficiency and effectiveness of reforestation of the DENR although references to the former to the extent necessary are done.

The basic measure of efficiency is the input-output ratio which indicates that the greater the output for a given input or the lower the input for a given output, the more efficient the activity is. Effectiveness, on the other hand, is a measure of the wellness of a program in satisfying its stated objectives (e.g. Technology Digest

³ Other additions and reductions include discrepancies in the recording of data that requires readjustment in the stock and flows of a forestry resource.

2008). In addition, a program may be considered effective if the various stakeholders and beneficiaries especially those on the ground are generally satisfied with its results.

Empirically, however, measuring the efficiency and effectiveness of government spending, such as the DENR reforestation program, could be difficult (e.g. Mandl et al. 2008). Among others, this is because while there are many potential measurement techniques that can be employed, their actual usage generally require complex data that may not be available from the usual sources, such as government statistical agencies.

For this assessment, an actual measure of the efficiency of the reforestation program of the DENR that can be verified to some extent given the available secondary data is the ratio of the number of hectares planted to the cost of planting. On the other hand, An applicable approach to determine effectiveness the reforestation program is to compare the actual performance of the program, i.e., in terms of hectares planted and other measures, to the pre-set targets. Furthermore, the effectiveness of the reforestation program will be measured in terms of the level of satisfaction of the various stakeholders particular those on the ground of its outcomes.

Data and Data Sources

The study uses secondary data from the relevant institutional sources including the DENR, COA, LGUs and other agencies. The particularly important sources of data and information are the Annual Audit Reports of the COA and the annual financial reports of the reforestation program from the DENR.

Primary data were also gathered through KIIs with selected DENR personnel at the regional, provincial and municipal levels using the Caraga region and selected areas therein as case study. In addition FGDs with the representatives of some POs implementing the NGP in the Caraga region were conducted. These POs covered a total of 2,056.5 hectares of NGP areas in 28 barangays in the following cities and municipalities: Butuan City, Buenavista and Nasipit in Agusan del Norte and Bayugan City, Prosperidad, San Francisco and Sibagat in Agusan del Sur. Furthermore, an NGP reforestation site in Nasipit, Agusan del Norte was visited and inspected. The KIIs, FGDs and site visit were intended to gather information on the perceptions of NGP beneficiaries on the performance of the reforestation program of the DENR including the NGP, the problems encountered in program implementation; and the potential solutions to the problems.

The limited time and resources available to the study precluded a wider coverage in terms of regions and reforestation areas in the case study. Caraga was selected because it is a leading region in terms of the reforestation efforts of the DENR and the forestry sector of the country. The familiarity of the authors to the region and selected areas also facilitated the smooth conduct of the primary data gathering and related activities which contributed to the completion of the study.

III. Laws, Institutions, Programs and Plans Related to reforestation

The rest of the presentation below is organized in a way that the recommendations are provided right after the problems are identified. The recommendations put forward as well as the other important points by the study made are shown in italics for highlighting purposes.

Laws and institutions

The different laws and other legal instruments, their dates of issuance, description and involved institutions related to reforestation in the Philippines from 1947 to the present are enumerated in Appendix B. The more notable of past legal instruments on reforestation are a) PD 705, requiring timber licensees to undertake reforestation on their concessions; b) LOI 423, directing active cooperation and participation of government agencies in government reforestation programs; c) PD 1153, requiring every citizen 10 years of age or above to plant one tree every month for five consecutive years; and d) Circular 985, requiring local governments to establish and maintain seedling nurseries (Harrison et al. n. d.).

Thus, the country has numerous laws and other legal instruments for the management of reforestation. Based on KII and FGD results, however, indicated that while this is so, the level of understanding of these documents may still be inadequate especially among stakeholders at the ground level. For a start, therefore, the laws on reforestation which are currently in effect may be summarized from their original legalistic forms into plain and preferably local language. The resulting simplified materials can then be reproduced and distributed to the different reforestation stakeholders, such as the POs and other local actors, so that they can have a practical appreciation of the laws leading to their improved participation in and implementation of reforestation programs.

The DENR is the main agency of the national government tasked with the management of the environment and natural resources, including forestry resources. Under it is the FMB which, among others, is mandated to recommend policies and/or programs for the effective reforestation and rehabilitation of critically denuded/degraded forest reservations and the development of forest plantations, including rattan, bamboo and other valuable non-timber forest resources. Furthermore, the FMB is also tasked to advise the regional offices of the DENR in the implementation of reforestation and forest plantation policies and/or programs. Key informants explained that the FMB is a staff bureau of the DENR and does not set physical targets on area to be planted for specific reforestation programs.

Reforestation Programs

The reforestation and related programs in the Philippines over time have been reviewed in the literature (Tamayo and Degawan 2007; Chokkalingam et al. 2006, Harrison et al. n. d.). After the 1986 people power revolution, the major initiatives included the FSP I and II (which were established in 1987 and 1995 respectively under the so-called NFP. The latter, in particular, was implemented through CBFM which was adopted in 1995 as the national strategy for sustainable forest management and social justice in the country. In the implementation, CBFM agreements, which

were production sharing agreements between the DENR and the POs were also established to provide the security of tenure and incentives to develop, utilize and manage specific portions of forestlands.

In the 1990s, two private sector management agreements were instituted to revitalize the industrial forest plantation program and generate income for smallholders in the uplands. IFMAs were initiated to support timber production when TLAs were being phased out. SIFMAs were also conducted between the DENR and individuals and single families for areas of one to 10 hectares, and for associations and cooperatives for areas of 11 to 500 hectares.

Although individual assessments have been done in the past on reforestation programs and projects in the country, a comprehensive assessment of all reforestation activities that include those which are not conducted by the DENR has not been conducted yet as is in order. This bigger effort will result to a fuller review of the entire forestation program which can then serve as a basis for the conduct of future programs.

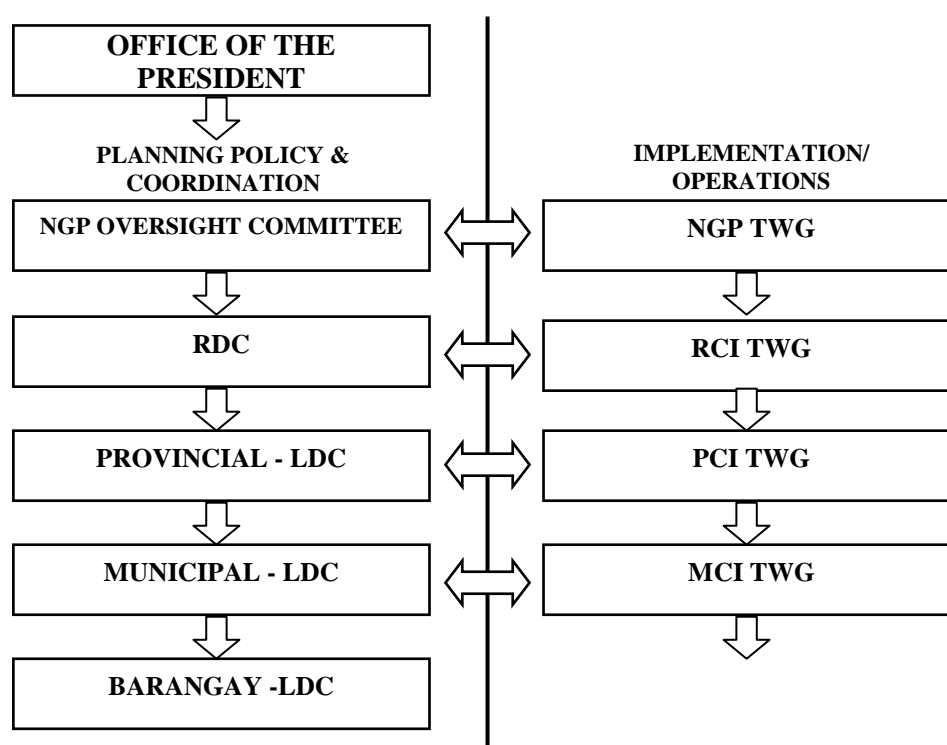
National Greening Program

On February 24, 2011, President Aquino issued EO 26 declaring the implementation of the NGP, a government priority program to reduce poverty; promote food security, environmental stability and biodiversity conservation; and enhance climate change mitigation and adaptation. Thus, the NGP is not a straightforward reforestation effort but a program that has broader national objectives. Also, it should be emphasized that as mandated by EO 26, the NGP is a collective effort of all stakeholders and not only of the DENR and other government agencies.

EO 26 mandates the DA-DAR-DENR Convergence Initiative to be the oversight committee for the program, with DENR as the lead agency. The organizational structure of the NGP is provided in Figure 2 while the functions of the different committees and groups under the structure are described in the NGP website. On May 13, 2011, the President together with public and private sector representatives led the launching of the NGP at DENR headquarters in Quezon City.

The NGP specifically seeks to plant 1.5 billion seedlings in 1.5 million hectares of public lands nationwide in six years from 2011 to 2016 (Table 1). This desired coverage is more than twice the government's accomplishment for the past 25 years, which adds to only 730,000 hectares. The target of 1.5 million hectares of public lands to be reforested is also more than double the target of the Philippine Development Plan 2011-2016 of 600,000 hectares of increased forest cover by 2016 (NEDA 2011).

Figure 2: Organizational Structure of the National Greening Program



Notes: RDC= Regional Development Committee; LDC=Local Development Committee; TWG=Technical Working Group; RCI=Regional Convergence Initiative; PCI=Provincial Convergence Initiative; MCI=Municipal Convergence Initiative
Source: NGP Website

Table 1: Targets in Area and Trees Planted of the National Greening Program, 2011-2016

Year	Target in Area Planted (hectares)	Target in Trees Planted (million seedlings)
2011	100,000	100
2012	200,000	200
2013	300,000	300
2014	300,000	300
2015	300,000	300
2016	300,000	300
Total	1,500,000	1,500

Source of data: Modified from NGP Brochure

Key informants explained that the basis for setting up the 1.5 million hectares targeted by the NGP is the NGP commodity roadmap. This roadmap provides area targets by kind of tree for 2011 and 2012 and by region and by kind of tree for 2013

to 2016. They also mentioned that another basis for the target setting for the NGP is the data provided by the NAMRIA on the available potential areas for development/rehabilitation in the country.

Despite the aforementioned, the basis of the target set for the NGP of 1.5 million hectares is still not clear as there are other parameters to be considered. For instance, while the areas maybe available can they all actually be planted given the limited resources at hand, the short number of years available, and the past record of the country on reforestation among others? It would help if the NGP can elaborate further on why such a target was set nationally, as well as regionally as contained in the commodity roadmap. This will erase any lingering doubts that the program is more of a politically expedient propaganda act of the national government than an honest to goodness grand effort to effectively reforest the country.

Specifically, In order to set a target for the NGP, it should be known first how much area has the country already reforested over time so far and what the status of these reforested areas are. Key informants stated that an identification of the actual reforested lands in the country and assessment of their status are unavailable at present as the activity is costly and time consuming. Yet, this is one of the first steps necessary for setting a target for a new reforestation program like the NGP. *Thus, it is recommended that funds should immediately be made available to develop GIS maps of established old reforestation/plantation areas in order to determine their actual location and subsequently to assess their current status. The data and information generated will be necessary to compute how much reforestation still needs to be done.*

Key informants mentioned that the 2011 and 2012 NGP sites were already identified and duly reflected in GIS maps. These maps were submitted to DBM as requirement prior to the budget release in 2013. Likewise, indicative maps of 2013 NGP sites will also be submitted to DBM. Actual SMP will be conducted in the first quarter of every year from 2013 to 2016. Corresponding site to species matching has been undertaken by the field offices to determine the suitable species in a particular site.

The targeted areas for reforestation under the NGP include forestlands, mangrove and protected areas, ancestral domains, civil and military reservations, urban areas under the greening plan of LGUs, inactive and abandoned mine sites, and other suitable lands of the public domain. In addition to the direct effects of reforestation, the program seeks to indirectly improve water quality in rivers and irrigation for farm lands, reduce the potential for flooding, soak up carbon dioxide out of the atmosphere, and lay down a strong foundation for an expanded wood-products economy.

All government agencies and institutions of the Philippines, including LGUs, are mandated to provide full support to the NGP, not only in terms of tree planting, but also in the production of quality seedlings, mobilization of all government employees, and other efforts. Students, from Grade 5 to college level, are also made to contribute by planting at least 10 seedlings each, annually. For its part, the poor is encouraged to participate in the program as well. For instance, upland communities are tapped to be responsible in taking care of the seedlings planted by other

participants. In return for their services, they are to be included in the CCT Program being run of the DSWD.

While this may appear mundane, there is the need to explain clearly why post-graduate students are excluded from the planting of trees under the NGP and why students should plant at least 10 seedlings. Furthermore, an explanation of why out-of-school youths are not encouraged to do the same is needed. A better understanding of the rationale behind these issuances will help improve participation among students and the youth in general which comprise a potentially major source of leg power for the NGP.

Reforestation-Related Plans

1990 MPFD

During the last twenty years, two major sectoral plans were prepared for the forestry sector: the 1990 MPFD and the 2003 Revised MPFD. The main objective of the 1990 MPFD was to prepare a long-term 25-year plan for the development of forestry. In the case of reforestation, it was intended to a) estimate the reforestation needs and financing requirements for each type of reforestation strategy, and to translate the reforestation needs into programs and targets for each successive five-year period; b) develop systems and criteria for turning reforestation programs into concrete projects; and c) recommend modifications on current reforestation and natural forest management programs to align them to those proposed under the master plan.

The 1990 MPFD had the following National Forestation Program targets expressed in terms of established plantations for the years 1987-2000 (Table 2). Annual forestation target was 100,000 hectares for a total of 1,400,000 hectares for the 1987 to 2000 period. *As can be seen, the target of 1.4 million hectares of the 1990 MPFD for 14 years is relatively conservative compared to the 1.5 million hectares for just 6 years targeted by the NGP. The annual increment of the 1990 MPFD target of 100,000 hectares is also more uniform and consistent compared to the annual increments of the NGP target which rapidly increase from 100,000 hectares in 2011 to 300,000 hectares in 2013 before flattening out at 300,000 hectares thereafter. The very high targets of the NGP are a big departure from the past targets which again needs to be clearly explained.*

The 1990 MPFD also had Periodic Plantation Forestry Program Targets for 1991-2015 (Table 3). The targeted seed orchards increased on a periodic basis, from 12 in 1991-1995 to 24 in 2010-2015. The large nurseries fell from 20 in 1991-1995 to 5 in 2010-2015; medium nurseries increased from 40 to 50; and the small nurseries remained the same at 350. The targeted total plantation area decreased on a periodic basis, from 695 thousand hectares in 1991-1995 to 540 thousand hectares in 2010-2015. The total number targeted for the entire period from 1991 to 2015 was 2,935 thousand hectares.

Table 2: National Forestation Program Targets of the 1990 MPFD, 1987-2000 (thousand hectares)

Agency	Annual	Total
<i>Government Sector</i>		
DENR	30	420
Other National Government Agencies	3	42
Local Government	12	168
Others	5	70
Total Government	50	700
<i>Private Sector</i>		
TLA	25	350
Lessee, industry	10	140
Private landowner	5	70
Others	10	140
Total Private Sector	50	700
Grand Total	100	1,400

Source: DENR (1990)

Table 3: Periodic Plantation Forestry Program Targets of the 1990 MPFD, 1991-2015

Item	Unit	1991-1995	1996-2000	2001-2005	2006-2010	2011-2015
Input target						
Seed orchard	No.	12	24	24	24	24
Nursery:						
Large	No.	20	15	5	5	5
Medium	No.	40	40	50	50	50
Small	No.	350	350	350	350	350
Contract with FLMA			thousand hectares			
Protection		50	50	51	70	70
Production						
Hardwood		203	37	36	18	10
Others		52	48	38	37	35
IFP						
Hardwood		62	108	68	71	71
Others		42	32	32	29	29
Mandatory TLA/TPSA plantation		131				
CBFM						
LHCF		14	30	30	30	30
MHCF		51	110	110	110	110
SHCF		51	110	110	110	110
Agroforestry		39	75	75	75	75
Total for plantations		695	600	550	550	540

Source: DENR (1990)

Notes: 1) Plantations for other purposes include rubber, pine, mangrove, rattan, bamboo, and fruit trees. 2) Only wood volume is included in the figures.

Furthermore, the 1990 MPFD has cumulative physical targets for forest plantation development (Table 4). By 2015, 2,994,000 hectares shall have been planted. The periodic costs of the plantation forestry program of the 1990 MPFD showed decreasing costs over time in the 1990s and levelling costs in the 2000s (Table 5). The average periodic cost of the 1990 MPFD from 1991 to 2015 was P2,598.8 million while the cumulative cost of the plan for the same period was P12,993.3 million.

Table 4: Summary of the Cumulative Physical Targets for Forest Plantation Development of the 1990 MPFD (thousand hectares)

Item	1990	1995	2000	2005	2010	2015
Contract reforestation	299	505	618	735	842	945
IFP/TLA/TPSA plantation	179	374	506	609	702	792
Community plantation	0	93	311	543	754	957
Agroforestry tree farm		60	120	180	240	300
Total	478	1,032	1,555	2,067	2,538	2,994

Source: DENR (1990)

Table 5: Periodic Costs of the Plantation Forestry Program of the 1990 MPFD (million pesos per year)

Item	1991-1995	1996-2000	2001-2005	2006-2010	2011-2015	Average
Contract						
Reforestation	1,265.1	961.8	912.6	912.6	912.6	993.0
IFP/TLA/TPSA plantation	1,036.0	939.9	743.2	743.2	743.2	841.1
Community plantation	531.4	463.1	492.2	492.2	492.2	494.3
Agroforestry tree farm	201.1	201.1	251.4	251.4	251.4	231.3
Nursery and orchard	40.6	40.7	38.1	38.1	38.1	39.1
Total	3,074.2	2,606.6	2,437.5	2,437.5	2,437.5	2,598.8

Source: DENR (1990)

2003 Revised MPFD

More than a decade into the implementation of the 1990 MPFD, the national government saw the need for a review and revision of the plan to take into consideration the changed environment and priorities in the Philippines and other emerging trends in local and international forestry. The 2003 Revised MPFD was thereafter formulated with numerous objectives for the forestry sector, among the most notable of which was the assessment of the accomplishments of 1990 MPFD relative to its stated objectives and to re-evaluate, revise and/or update the 1990 plan as needed.

The 2003 Revised MPFD estimated that for the next 12 years of its implementation, the country would need to plant 460,000 hectares to satisfy plantation wood demand with plenty to spare for the export demand. These areas of commercial forest plantations will be established within appropriate areas including CBFM projects and maintained and renewed within 12 years. The plan also explained that many regions in the country have comparative advantage with regards to attaining high plantation yield and that planting must concentrate on these regions to attain economic efficiency.

The aforementioned target of planting 460,000 hectares in 12 years of the 2003 Revised MPFD was even more conservative than that of the 1990 MPFD. Partly, the lower targets in the former may have been brought about by the non-attainment of the 1990 MPFD targets as will be shown below. Again, with the risk of being repetitive, it should be made clear if the scaling down of targets from the 1990 MPFD to the 2003 Revised MPFD was taken into account when the NGP targets were set.

In terms of projected impacts, the 2003 Revised MPFD explained that the establishment of forest plantations under it is to be at the right places and intensively managed for commercial production so that it would provide continuous source of employment and as well as address poverty, wood sufficiency, and illegal practices in affected areas. The plan further explained that the expansion of other forest areas for rehabilitation and restoration purposes through the establishment of indigenous forest plantations would improve the health of the watersheds and positively impact on the conservation of biodiversity.

In terms of implementation, the commercial plantation and forest rehabilitation components of the forest area expansion program of the 2003 Revised MPFD were to be implemented from years 1 to 15 as full-time activities. The total cost of forest area expansion program from year 1 to year 25 was P34 billion of which P29 billion was for commercial plantation and the rest was for forest rehabilitation (Table 6). The total cost of the forest area expansion program formed 56.09 percent of the total cost of all the programs planned under the 2003 Revised MPFD.

Table 6: Total Indicative Costs for Forest Area Expansion Under the 2003 Revised MPFD (Million Pesos)

Program	Period of Implementation (in years)				Total	Public Sector	Private Sector
	1-5	6-10	11-15	16-25			
Forest area expansion							
- Commercial Plantation	5,800.0	5,800.0	5,800.0	11,600.0	29,000.0	11,600.0	17,400.0
- Forest Rehabilitation	1,000.0	1,000.0	1,000.0	2,000.0	5,000.0	5,000.0	
Sub-Total	6,800.0	6,800.0	6,800.0	13,600.0	34,000.0	16,600.0	17,400.0
Total for All Program	21,130.3	16,623.2	7,630.5	15,246.0	60,614.9	37,583.7	23,031.3
% to Total	32.18	40.91	89.12	89.20	56.09	44.17	75.55

Source of Data: DENR (2003)

IV. Analysis of the Reforestation Program of the DENR

Area Reforested

Available data showed that the area reforested by the DENR in particular and the government sector in general grew at positive rates during the period from 1974 to 2009 (Table 7). For DENR alone, growth was highest in the 1970s, followed by the 2000s, 1990s and 1980s. Together for the government, growth was again highest in the 1970s, followed by the 2000s, 1980s and 1990s. For the entire period from 1974 to 2009, the average annual growth rate in the area reforested by the DENR was a healthy 35.89 percent while that for the entire government was a bit lower at 33.65 percent. The area reforested by the both the government and non-government sector also grew annually acceptably during the period from 1974 to 2009, at an average rate of 24.84 percent. *From these available data alone, it then appears that the reforestation program of the government over time has been performing quite well.*

Performance under the 1990 MFDP

Past analysis conducted on specific reforestation programs conducted in the Philippines, however, showed a quite different picture. Specifically, it was found that the 1990 MPFD had under-achieved in terms of physical targets (DENR 2003). Of the 1.3 million hectares of forest plantations targeted to be planted between 1991 and 2000, the MPFD planted only around 0.68 million hectares during the period for a 50 percent accomplishment. Moreover, the quality of these reported plantations is far from satisfactory because of the reported low survival rate of government-initiated plantations. Underachievement was also reported for the individual activities under the 1990 MPFD (Table 8).

Among the issues cited as hindering the attainment of the targets of the plan including those on reforestation include those relating to policies and institutional arrangements; program implementation; R&D, forest utilization, and technology; weak IEC and training; lack of credible systems of M&E and current systems are not fully utilized by policy-makers; as well as cross-cutting problems.

Table 7: Area Reforested by Sector in the Philippines, 1973-2009 (hectares)

Year	Government Sector			Non-Government Sector					Grand Total
	DENR	Other Government Agencies	Total	Timber Licensees 1/	IFMA/ SIFMA/ CBFMA TFLA/PLA/ ITPLA	PD 1153	Others	Total	
1973-1974	4,994	-	4,994	-	-	-	-	-	4,994
1974-1975	15,280	-	15,280	-	-	-	-	-	15,280
1976	20,977	2,251	23,228	8,275	-	-	230	8,505	31,733
1977	23,677	9,688	33,365	17,276	1,088	500	1,034	19,898	53,263
1978	34,343	10,343	44,686	22,006	5,001	6,523	209	33,739	78,425
1979	35,305	16,553	51,858	20,132	545	6,017	845	27,539	79,397
1980	32,956	6,925	39,881	15,579	1,162	3,894	-	20,635	60,516
1981	30,707	2,589	33,296	20,096	6,482	4,667	-	31,245	64,541
1982	31,202	3,999	35,201	21,588	972	5,501	-	28,061	63,262
1983	27,155	15,084	42,239	31,703	3,554	1,042	-	36,299	78,538
1984	15,520	568	16,088	14,186	7,011	1,650	-	22,847	38,935
1985	12,201	483	12,684	8,148	1,500	1,228	671	11,547	24,231
1986	22,495	1,931	24,426	6,572	1,625	368	7	8,572	32,998
1987	27,558	1,285	28,843	7,956	1,118	1,296	598	10,968	39,811
1988	30,890	336	31,226	23,126	9,831	-	-	32,957	64,183
1989	82,966	6,486	89,452	32,087	6,526	-	3,339	41,952	131,404
1990	146,718	7,231	153,949	33,443	3,749	-	522	37,714	191,663
1991	72,238	1,364	73,602	18,089	1,348	-	-	19,437	93,039
1992	24,304	-	24,304	11,683	4,606	-	-	16,289	40,593
1993	6,347	-	6,347	12,692	172	-	-	12,864	19,211
1994	18,032	-	18,032	9,468	18,729	-	3,322	31,519	49,551
1995	7,840	14,001	21,841	30,380	-	-	13,012	43,392	65,233
1996	18,869	-	18,869	20,005	-	-	7,222	27,227	46,096
1997	48,490	811	49,301	14,357	-	-	2,579	16,936	66,237
1998	32,643	576	33,219	8,236	-	-	913	9,149	42,368
1999	30,831	353	31,184	6,904	-	-	4,079	10,983	42,167
2000	19,059	2,681	21,740	1,989	3,421	-	482	5,892	27,632
2001	26,484	40	26,524	1,410	2,721	-	789	4,920	31,444
2002	9,111	11,570	20,681	564	3,850	-	525	4,939	25,620
2003	6,565	6,630	13,195	842	1,034	-	17	1,893	15,088
2004	12,436	-	12,436	2,836	4,431	-	635	7,902	20,338
2005	7,187	-	7,187	341	6,337	-	2,633	9,311	16,498
2006	4,476	-	4,476	-	-	-	2,747	2,747	7,223
2007	25,024	-	25,024	-	-	-	2,813	2,813	27,837
2008	27,752	-	27,752	182	928	-	14,747	15,857	43,609
2009	53,842	-	53,842	-	950	-	-	950	54,792
Total	1,064,474	123,778	1,170,638	422,151	98,691	32,686	63,970	617,498	1,788,125
Average Annual Growth Rates (Percent)									
1974-1979	60.79	-	70.32	-	-	-	-	-	85.88
1980-1989	19.85	-	20.84	-	-	-	-	-	13.96
1990-1999	27.28	-	19.32	-	-	-	-	-	5.28
2000-2009	48.07	-	42.47	-	-	-	-	-	24.71
1974-2009	35.89	-	33.65	-	-	-	-	-	24.84

1/ 1990-1994 including Enrichment Planting of Timber Licensees.

Source of Data: DENR

Table 8: Summary of Targets and Accomplishments Related to Reforestation under the 1990 MPFD

Target (1990-2000)	Accomplishments
780 km of greenbelts/roadside planting	No records except for seedlings planted (2.1 million from 1990-2002) in Metro Manila. Many of those planted have died, or replaced, removed or destroyed due to new infrastructures like road widening.
1.3 M ha of forest plantations	600,000 hectares accomplished
44,000 hectares of mangrove plantations	around 15,000 hectares developed under FSP
40,000 hectares of pine plantations	1,700 hectares accomplished
95,000 hectares of rattan plantations	11,959 hectares established

Source of Data: DENR (2003)

The area planted by and regular budget for plantation establishment and maintenance of the DENR for the period 1994 to 2009 when such data series is available are presented below (Table 9). The output/cost ratios (area planted/regular budget) are also computed to give some indication of the efficiency of the DENR in its reforestation function (note that a higher ratio implies increasing efficiency and vice versa). The results show that the annual average output/cost ratio from 1994 to 2003 which were covered by the 1990 MPFD was 0.14. On the other hand, the annual average output/cost ratio from 2004 onwards which were not covered by the 1990 MPFD was only 0.05. *These figures appear to show that even when the effect of inflation is taken into consideration, the efficiency in reforestation during the period covered by the 1990 MPFD was higher than after that indicating a deteriorating efficiency performance. Furthermore, the results show that the annual ratios for the entire 1994 to 2003 had been fluctuating greatly in many years showing that the efficiency performance was also significantly fluctuating in said years (As caveat, it should be pointed out also that the sudden jump in the regular budget in 2009 has affected results leading to a lower average out/cost ratio for 2004 to 2009).*

Finally, using data from Tables 2 and 7, actual computations done here show that the reforestation accomplishment for the period from 1991 to 2003 which were covered by the 1990 MPFD was low at just 43 percent supporting earlier cited assertions that the reforestation targets under the plan have not been attained (Table 10).

Table 9: Area Planted, Regular Budget for Plantation Establishment and Maintenance and Protection of the DENR, and Area Planted/Regular Budget Ratio, 1994-2009

Year	Area Planted (ha)	Regular Budget (in thousand pesos)	Output/Cost Ratio
1994	18,032	155,236	0.12
1995	7,840	99,211	0.08
1996	18,869	229,914	0.08
1997	48,490	255,347	0.19
1998	32,643	133,718	0.24
1999	30,831	75,225	0.41
2000	19,059	190,875	0.10
2001	26,484	140,239	0.19
2002	9,111	158,033	0.06
2003	6,565	108,366	0.06
2004	12,436	152,716	0.08
2005	7,187	160,506	0.04
2006	4,476	160,506	0.03
2007	25,024	229,917	0.11
2008	27,752	202,610	0.14
2009	53,842	1,611,877	0.03
1994-2003 Total	217,924	1,546,164	
Average	21,792	154,616	0.14
Average annual growth rate	12.24	13.76	
2004-2009 Total	130,717	2,518,132	
Average	21,786	419,689	0.05
Average annual growth rate	95.58	128.83	
1994-2009 Total	348,641	4,064,296	
Average	21,790	254,019	0.09
Average annual growth rate	45.57	59.78	

Source of data: DENR

Table 10: Area Reforested by Sector in the Philippines, Target and Accomplishment Under the 1990 MPFD, 1991-2003 (in hectares)

Year	Government Sector			Non-Government Sector					Grand Total
	DENR	Other Government Agencies	Total	Timber Licensees 1/	IFMA/ SIFMA/ CBFMA TFLA/PLA/ ITPLA	PD 1153	Others	Total	
1991	72,238	1,364	73,602	18,089	1,348	-	-	19,437	93,039
1992	24,304	-	24,304	11,683	4,606	-	-	16,289	40,593
1993	6,347	-	6,347	12,692	172	-	-	12,864	19,211
1994	18,032	-	18,032	9,468	18,729	-	3,322	31,519	49,551
1995	7,840	14,001	21,841	30,380	-	-	13,012	43,392	65,233
1996	18,869	-	18,869	20,005	-	-	7,222	27,227	46,096
1997	48,490	811	49,301	14,357	-	-	2,579	16,936	66,237
1998	32,643	576	33,219	8,236	-	-	913	9,149	42,368
1999	30,831	353	31,184	6,904	-	-	4,079	10,983	42,167
2000	19,059	2,681	21,740	1,989	3,421	-	482	5,892	27,632
2001	26,484	40	26,524	1,410	2,721	-	789	4,920	31,444
2002	9,111	11,570	20,681	564	3,850	-	525	4,939	25,620
2003	6,565	6,630	13,195	842	1,034	-	17	1,893	15,088
Total									564,279
Target									1,300,000
% Accomplished									43%

Note: The total target is based on an annual target of 100,000 hectares per year from Table 2.
Source of Data: table 7

Performance under the 2003 Revised MFPD

As stated earlier, the 2003 Revised MFPD targeted that for the next 12 years of its implementation, 460,000 hectares or 38,000 hectares annually will be planted for commercial plantation to meet local wood demand and exports. There is no available data on the area covered by commercial plantation since 2004 or the year after the drafting of the revised 2003 MFPD. However, even using available data in Table 7 it is clear that the target of the plan has not been attained so far. *Specifically, from 2004 to 2009, the total area reforested by both the government and non-government sector was only 170,207 hectares for 28,384 hectares annually (Table 11). This was way below the target of the plan of 38,000 hectares annually of the 2003 MFPD for commercial plantation alone.*

For its part, NEDA (2011) reported that only approximately 78,000 hectares were reforested during the period 2004-2010 and that this formed only 60 percent of the total target of 130,000 hectares. It mentioned that as of 2010, both the government and nongovernment sectors reforested a total of 1,958,928 hectares. The government, through projects of the DENR, contributed a total of 1,368,645 hectares or 70 percent while the nongovernment sector accomplished 590,283 hectares or 30 percent. Furthermore, as of 2010, approximately 11.6 million hectares of forestlands were covered by some form of community forest management under various government programs. Despite the rise in the distributed number of these tenurial instruments, it

mentioned that few protected areas have been declared, while the problem of deforestation in the country continues.

Again using data from Table 7 and the 38,000 hectares targeted for annual reforestation under the 2003 Revised MPFD, computations conducted here show that the reforestation accomplishment for the period from 2004 to 2009 which were covered by the 2003 revised MPFD was at just 75 percent (Table 11). This figure is still low further confirming that the reforestation targets under the 2003 Revised MPFD were not attained.

In apparent contrast to the abovementioned findings for the 1990 MFPD and the 2003 Revised MFPD, the DENR reported that from 1990-2011, which were the years covered by the two plans, the targets the department set for areas reforested have been more than attained for most years. For the 2000s in particular, the reforestation accomplishments exceeded targets annually except for 2000 and 2009 (Table 12). There may be a need to reconcile these data with those already presented earlier. Of course, a good explanation is that the targets of the 1990 MFPD and the 2003 Revised MFPD were not necessarily the DENR targets as well.

It is particularly noted as well that the DENR targets shown in Table 12 varied from 2004 onwards with the annual targets generally lower than that set by the 2003 Revised MFPD. These very low targets resulted in the high accomplishments in these years. *Again, it is important that the methodology for setting up the targets should be explained by the concerned authorities so that the public can appreciate better that the reports of accomplishments are not just propaganda but real indications of concrete results.*

Table 11: Area Reforested by Sector in the Philippines, Target and Accomplishment Under the 2003 Revised MPFD, 2004-2009 (in hectares)

Year	Government Sector			Non-Government Sector					Grand Total
	DENR	Other Government Agencies	Total	Timber Licensees 1/	IFMA/ SIFMA/ CBFMA TFLA/PLA/ ITPLA	PD 1153	Others	Total	
2004	12,436	-	12,436	2,836	4,431	-	635	7,902	20,338
2005	7,187	-	7,187	341	6,337	-	2,633	9,311	16,498
2006	4,476	-	4,476	-	-	-	2,747	2,747	7,223
2007	25,024	-	25,024	-	-	-	2,813	2,813	27,837
2008	27,752	-	27,752	182	928	-	14,747	15,857	43,609
2009	53,842	-	53,842	-	950	-	-	950	54,792
Total									170,297
Target									228,000
% Accomplished									75%

Note: The total target is based on an annual target of 38,000 hectares per year..

Source of Data: table 7

Table 12: Areas Reforested in the Philippines, 1990-2011

Year	Target	Accomplished	%
1990	127,648	191,663	150
1991	54,733	93,039	170
1992	31,257	40,592	130
1993	20,606	19,211	93
1994	146,389	49,551	34
1995	87,463	65,234	75
1996	40,624	46,096	113
1997	64,230	66,236	103
1998	62,152	42,368	68
1999	64,173	42,165	66
2000	48,936	27,632	56
2001	22,693	31,440	139
2002	22,910	25,620	112
2003	14,914	15,087	101
2004	15,495	20,333	131
2005	13,400	16,499	123
2006	6,129	8,809	144
2007	8,939	27,838	311
2008	29,538	43,610	148
2009	57,668	54,789	95
2010	35,925	36,875	103
2011	105,938	119,759	113

Source: DENR, Planning and Evaluation Division

Performance of the NGP

DENR data showed that the NGP implementation in 2011 generally had been a success in attaining its targets of area planted (Table 13). At the national level, the total area planted actually surpassed the target as 129 percent accomplishment was attained. The DENR alone, however, missed its own NGP target as it attained 82 percent accomplishment only. Among the regions, only CAR, Region VI and NCR did not attain their targets. Among other participating agencies, the ERDB did not attain its target as it only had a 73 percent accomplishment. The DILG planted 15,373 hectares while other partners (presumably including non-government stakeholders) planted 31,022 hectares. *It is important to know how many hectares the DILG and other partners targeted to plant to be able to compute their actual accomplishment rates. It should also be mentioned that according to key informants, other partners fund their reforestation efforts without financial assistance from the government and they are doing it as part of their social responsibility. Their reforestation achievements, however, are reported by the DENR as part of the entire reforestation program.*

Table 13: National Greening Program (NGP) Accomplishment Report for CY 2011, as of December 31, 2011

Office	Targeted Area to be Planted (hectares)	Report on Actual Area Planted (hectares)	% Accomplished
National	100,027	128,558.11	129
Other Partners		31,021.80	
DILG		15,372.99	
DENR-NGP	100,027	82,163.32	82
CAR (NR)	6,838	6,671.67	98
R-1 (NR)	5,000	5,080.17	102
R-2 (NR)	3,616	4,305.03	119
R-3 (NR)	5,547	5,548.03	100
R-4A	4,735	4,759.89	101
R-4B	4,999	5,150.98	103
R-5	5,584	6,079.68	109
R-6 (NR)	4,033	3,963.47	98
R-7 (NR)	5,632	5,736.76	102
R-8 (NR)	8,105	8,105.00	100
R-9	4,804	4,804.68	100
R-10 (NR)	4,336	4,336.80	100
R-11 (NR)	5,514	5,734.00	104
R-12 (NR)	4,705	5,007.50	106
R-13 Caraga (NR)	5,000	5,522.89	110
NCR (NR)	350	329.77	94
ARMM	588	-	0
CENTRAL OFFICE	19,241	-	0
ERDB	1,400	1,027.00	73

Note: NR=notarize report

Source: DENR

In terms of fund utilization, on the other hand, the data indicated that the NGP had a rather limited performance in this regard as of December 31, 2011 (Table 14). Nationally, the program only has a 73 percent fund utilization rate, defined as utilization divided by allotment. Among the regions and institutions, it is notable that a) NCR and ERDB which did not attain their planting targets had 100 percent fund utilization; b) most of the regions which attained their planting targets had lower than 100 percent utilization; c) ARMM which had a zero percent accomplishment in planting had a 100 percent fund utilization rate; d) and the Central Office of the DENR only had a one percent fund utilization rate. It is also worth noting that updated figures indicated that the NGP fund utilization rate has improved as of May 11, 2012 (Table 15). Nationally, in 2011, the program already has a fund utilization

rate of above 80 percent in 2011 for current funds and above 90 percent for continuing funds. These figures may imply that the fund utilization performance of the NGP is improving.

Table 14: National Greening Program (NGP) Statement of Allotment, Obligations Incurred, Balances and Utilization, as of December 31, 2011 (thousand pesos)

Particulars	Total Allotment	Total Obligation	Balance (Allot-Obl)	% of Utilization	Disbursement	Balance (Obl-Disb)
Grand Total	1,331,143	1,048,945	282,198	79%	885,279	163,666
CAR	105,962	101,683	4,279	96%	65,028	36,655
R-1	58,186	58,098	88	100%	57,449	649
R-2	66,914	61,478	5,436	92%	58,978	2,500
R-3	87,756	82,000	5,756	93%	80,652	1,348
R-4A	86,516	80,417	6,099	93%	77,687	2,730
R-4B	72,106	71,907	199	100%	60,347	11,560
R-5	74,202	59,634	14,568	80%	42,425	17,209
R-6	72,318	16,131	56,187	22%	15,042	1,089
R-7	74,488	65,932	8,556	89%	55,635	10,297
R-8	111,311	109,767	1,544	99%	106,267	3,500
R-9	65,901	63,046	2,855	96%	48,318	14,728
R-10	69,760	59,886	9,874	86%	54,068	5,818
R-11	65,635	62,636	2,999	95%	55,702	6,934
R-12	63,166	56,645	6,521	90%	28,570	28,075
R-13	68,267	62,387	5,880	91%	49,425	12,962
NCR	10,025	10,025	0	100%	5,105	4,920
ARMM*	7,000	7,000	0	100%	4,308	2,692
CENTRAL OFFICE (OSEC)	153,430	2,073	151,357	1%	2,073	0
ERDB	17,300	17,300	0	100%	17,300	0

Notes: * means OSEC Obligation. Grand Total includes FMB which is not indicated in the table.

Source of data: DENR

There is no available independent evaluation of the NGP so far which is understandable given that it is still into its second year of implementation. It has been reported that the DENR Secretary has recently ordered the notarization of all reports submitted by the DENR field offices playing key roles in the implementation of the NGP in an apparent move to remove doubts on the veracity of reports (Mosqueda 2012). *In response, a regional validation team that will periodically monitor and evaluate the implementation of the NGP by various field offices in Region VII has been created by the regional office of the DENR. This move, if not yet done in some other regions, should be practiced by all regional offices of the DENR for a more effective national and regional validation.*

Table 15: National Greening Program (NGP) Statement of Allotment, Obligations Incurred, as of May 11, 2012 (thousand pesos)

	Total Allotment	Total Obligation	Balance (Allotment-Obligation)	% of Utilization
FY 2009	1,509,011	1,279,422	229,589	84.79
FY 2010	1,243,208	1,200,432	42,776	96.56
Current	1,012,720	969,987	42,733	95.78
Continuing	230,488	230,445	43	99.98
FY 2011	1,423,462	1,189,138	234,324	83.54
Current	1,380,729	1,147,026	233,703	83.07
Continuing	42,733	42,112	621	98.55
FY 2012	2,915,935	594,602	2,321,333	20.39
Current	2,682,232	542,982	2,139,250	20.24
Continuing	233,703	51,620	182,083	22.09
Grant Total	7,091,616	4,263,594	2,828,022	60.12

Source of data: DENR

Performance Based on the COA Annual Audit Reports

COA (Various Years) reported that based on the reports of the DENR, the targets for areas planted from 2003 to 2010 were more than attained except for 2009 and 2010 (Table 16). The reported performance for forest protection was also highly satisfactory in years where data were reported. Despite these reports, however, the COA made several observations that point to the inadequacy in the conduct of reforestation by the DENR (Table 17).

Table 16: National Reforestation Targets and Accomplishments Reported by the Department of Environment and Natural Resources, 2003-2010

Year	Rehabilitation of degraded forestlands -area planted (hectares)			Forest protection -forest area patrolled/protected (hectares)		
	Target	Accomplish-ments	% of Accomplish-ments	Target	Accomplish-ments	% of Accomplish-ments
2003	14,914	15,087	101	-	-	-
2004	15,495	20,333	131	-	-	-
2005	19,508	20,753	106	-	-	-
2006	4,657	7,222	155	-	-	-
2007	5,936	6,662	112	4,075,832	4,089,465	100
2008	29,538	43,609	148	4,903,853	4,903,855	100
2009	57,668	54,789	95	-	-	-
2010	16,538.50	14,836	90	4,737,664	4,762,227	101

Source of data: COA Annual Audit Reports

Table 17: Summary of Observations, Recommendations and Status of Implementation of the Recommendations on Reforestation Based on the COA Annual Audit Reports, 1998-2006

Year	Observations	Recommendations	Status of Implementation
2010	<ul style="list-style-type: none"> • The results of the UDP in 2010 could not be determined due to management failure to do monitoring and evaluation. Despite this, Consolidated Annual Audit Reports submitted by some Regional Auditors disclosed the following: • Reforestation and related targets for the UDP were attained only in a few regions (Regions I, IV and IX) while several deficiencies were noted in the others. • Among the reasons put forward behind the non-attainment of targets in many regions were: a) desired seedling survival rates of 97 percent were not attained; b) some funds were utilized for purposes other than their intended objectives; c) no seedling was produced because no funds was allotted for the maintenance of the project; d) only a fraction of beneficiaries continued the maintenance and protection activities or complied with their obligations; e) IAC was negligent; f) delay in the implementation of projects due to due delay in release of funds and slow preparation of required documents; g) seedlings were procured be beneficiaries from commercial nurseries instead of own established nurseries; h) submission of financial documents was delayed as a result of revision of implementers; and i) transfer of project areas due to unsuitability of areas 	<ul style="list-style-type: none"> • The implementation of the UDP and similar programs should be monitored and evaluated at the national level periodically to determine whether the objectives/targets were successfully attained and to immediately resolve or address any problem/constraints that arise (The monitoring and evaluation is mandated by Memorandum Circular No. 2009-03 dated March 5, 2009 and DAO No. 2004-29 dated August 25, 2004). • All coordinators and other concerned regional officers should closely monitor the implementation of the projects and devise ways to resolve the problems encountered, and ensure that work and financial plan be followed. • Concerned regional personnel should improve fund utilization and avoid misuse of funds by charging expenses/activities not related to the specific purpose for which funds were allotted. 	<ul style="list-style-type: none"> • The status will be reported in the 2011 Annual Audit Report.

	<p>initially proposed for development.</p> <ul style="list-style-type: none"> • Other reasons provided were a) grass and shrubs had overgrown in established agro-forestry plantations resulting in a high mortality of seedlings planted and making it difficult for seedlings to grow; b) plantations established were attacked by beetles that cut the shoots of planted materials impeding full growth of seedlings; c) agro-forestry plantations established were not fenced making it easy for animals to tramp on seedlings; d) seedlings planted were below standard in terms of height and quality; e) intervention of politicians; f) manpower constraint; g) unstable peace and order situation and h) unfavorable weather conditions. 		
2009	<ul style="list-style-type: none"> • Management failed to ensure the timely release and utilization of funds by the regional offices resulting in the delayed implementation of the project and the program objective not being fully attained at year-end. • Review and analysis disclosed that out of the total target area, only 48,492 or 93% were planted. Five regions were not able to attain the targets at year-end. The reason put forward for non-attainment was delayed release of funds to some regional offices. • Implementation of reforestation projects was not totally successful because the required minimum survival rate of 95% for all trees planted was not attained in four regions. • The reported causes for the low survival rate were: a) typhoon; b) summer season; c) seedlings planted are below standards in terms of height and quality; d) 	<ul style="list-style-type: none"> • Management should instruct the Planning, Policy and Project Management Office and the Financial Management Services to jointly monitor the release and utilization of Program funds. • Management should instruct the Regional Executive Directors to see to it that the seedlings to be planted are within the DENR standards and the protection and maintenance activities for seedlings planted are carried out. • Management should assess the adequacy and enhance the existing measures to protect seedlings during 	<ul style="list-style-type: none"> • Fully implemented • Partially implemented • Partially implemented

	<p>inadequate protection against the elements; e) inadequate maintenance; and f) delayed release of funds.</p> <ul style="list-style-type: none"> • The management contention that the random sampling used in evaluation could not serve to draw an overall conclusion on the project performance showed that the methodology used in the evaluation may be futile resulting in waste of manpower and financial resources. 	<p>typhoons and summer season. Further, management should adopt an effective monitoring and evaluation system of the implementation of the reforestation projects.</p>	
2008	<ul style="list-style-type: none"> • The 32 hectares plantation projects contracted in 2007 for reforestation by CENRO Gumaca and Real were not maintained. In PENRO Romblon, 81 hectares contracted in 2008 for reforestation were not provided with maintenance and protection funds, leaving the area unattended which may result to high mortality of planted trees. • Management of PENRO Nueva Ecija could have accomplished more had they awarded the production and procurement of seedling to NGOs/POs with proven track record and capability to deliver. 	<ul style="list-style-type: none"> • Management should include in the Work and Financial Plan, funds for the maintenance and protection of reforested areas in order to achieve at least the minimum 80% survival rate of the planted seedlings. • Management should a) refrain from the practice of splitting of procurement by coordinating and consolidating the orders of seedlings of all CENROs; b) coordinate with all the CENROs to submit annual procurement plan for the needed seedlings and supplies; and c) use public bidding in the procurement of goods and services (in compliance with implementing guidelines, rules and regulations of RA 9184 as amended). 	<ul style="list-style-type: none"> • Fully implemented • Partially implemented

2007	<ul style="list-style-type: none"> •Advances to Contractors for some of the 1989 reforestation projects have remained unrecouped as of December 31, 2007, contrary to Section 64 of the NGAS Manual and RA 9184; the contracts were recommended for cancellation due to partial prosecution and/or abandonment of the projects, thus depriving the National Government on the use of such funds for other priority projects. •Land Improvements, reforestation and construction were in Progress without supporting documents. •Funds for maintenance and protection of reforested areas are minimal leaving about 75% of the areas planted unattended resulting in survival rate of 47%-70%, much below the 80% expected. The wastage of funds for dying trees in four regions audited averaging 61.9%. Limited funds for travelling expenses hindered the efficient monitoring of the projects, having no assurance that the contractors completed the projects. •Contracts for 2007 reforestation projects in four regions were awarded to limited contractors/POs and private individuals without the benefit of a public bidding thus, the agency was not assured that the awards made were most advantageous to the government. •PENRO Kalinga accomplished 46 or 98% out of the programmed 47 reforestation contracts for 2007 while PENRO Quezon accomplished 57 projects from 2004-2006 and January to June 2007, of which 14 were inspected and found with an average survival rate of 74.8% and one failed project. 	<ul style="list-style-type: none"> •Management should a) direct the Legal Division to expedite the preparation of draft complaints for collection of sum of money and damages against the erring contractors. Likewise, require them to explain why it took them so long to prepare a complaint against the contractors; and b) require the Legal Division Office to exert extra effort to locate the remaining 11 folders of reforestation contracts so that a case can be filed against them. •Management should a) establish a base-line map where the areas covered by reforestation are clearly indicated; b) identify the People's Organization which are implementing Plantation Establishment Contracts in each area; c) Require the Accounting Section to reconstruct, from available records, the amount which had already been paid to these POs to be able to get the total amount already spent for the areas; and (d) conduct validation of the areas and verify if these have really been planted with trees based on the reforestation contracts. •Management should a) include in the program of activities/Work and 	<ul style="list-style-type: none"> •Partially implemented •Partially implemented •Partially implemented
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	<ul style="list-style-type: none"> • The Green Philippine Highway project in three Regions inspected at random disclosed an average survival rate of 39.36%, with the highest in Region 13 of 79.44% and the lowest in Region 8 of 20%. The stakeholders lacked participation in the maintenance of the project in regions with low survival rate. • One reforestation contract was damaged and unfinished due to flood and another one was, likewise, unfinished at termination date of project. 	<p>Financial Plan funds for the protection and maintenance of areas established, developed and rehabilitated up to three years of age to prevent wastage of government resources in dying plantation for lack of maintenance; and b) monitor the status of the contracted projects to determine areas that need proper maintenance.</p> <ul style="list-style-type: none"> • There should be a) proper adherence to RA 9184 by the PENRO/CENRO, particularly on the creation of BAC which will undertake the required activities before entering into a contract with POs/NGOs and private individuals; and (b) the contracts should include stipulations for warranty, maintenance and liquidated damages that would best protect the interest of the government against defaulting contractors. • Management should send letters to the adopters informing them of the status of their assigned areas and to remind them of the benefits of the community for maintaining the project, as well as their responsibilities as embodied in the Memorandum of Agreement. The PENRO/CENRO should conduct a 	<ul style="list-style-type: none"> • Not implemented • Not implemented
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		<p>periodic site inspection of the newly planted trees and coordinate with barangay officials for the proper maintenance of the highway.</p> <ul style="list-style-type: none"> • The Project In-Charge should submit a report on the damage, PAG-ASA weather report, pictures and other documents that would prove there was an initial accomplishment, and proof that the project have been damaged; and to evaluate whether there is a need to pursue or discard the project so that remaining funds can be earmarked for other priority projects. • Monitoring teams should be formed to closely monitor and encourage contractor-POs/Coops to finish their reforestation contracts on the extended due dates, and to request extension of the green component to give another chance to the POs/Coops to complete their contracts because their failure can affect the success of the project. 	<ul style="list-style-type: none"> • Partially Implemented • Not implemented
2006	<ul style="list-style-type: none"> • The accomplishment report for Plantation Establishment, Maintenance and Protection Activity of PENRO-Benguet lacked necessary information to determine whether the program objective of 80% survival rate of trees planted was attained. 	<ul style="list-style-type: none"> • The reporting system should be improved to include in the report format key information relative to program objective and the extent of its achievement. 	<ul style="list-style-type: none"> • Fully implemented

Source of data: COA (Various Years)

Among the reasons behind the non-attainment of targets in many regions which were put forward were the following: a) desired seedling survival rates of 97 percent were not attained; b) some funds were utilized for purposes other than their intended objectives; c) no seedling was produced because no funds were allotted for the maintenance of the project; d) only a fraction of beneficiaries continued the maintenance and protection activities or complied with their obligations; e) the IAC was negligent; f) delay in the implementation of projects due to delay in release of funds and slow preparation of required documents; g) seedlings were procured by beneficiaries from commercial nurseries instead of own established nurseries; h) submission of financial documents was delayed as a result of revision of implementers; and i) transfer of project areas due to unsuitability of areas initially proposed for development.

Still other reasons which were advanced to explain the inadequacy of the reforestation program of the DENR were a) grass and shrubs had overgrown in established agro-forestry plantations resulting in a high mortality of seedlings planted and making it difficult for seedlings to grow; b) plantations established were attacked by beetles that cut the shoots of planted materials impeding full growth of seedlings; c) agro-forestry plantations established were not fenced making it easy for animals to tramp on seedlings; d) seedlings planted were below standard in terms of height and quality; e) intervention of politicians; f) manpower constraint; g) unstable peace and order situation and h) unfavorable weather conditions. COA (Various Years) made recommendations to address the problems although many were only partially implemented or not at all.

Further, it can be seen in Table 17 that not all of the COA recommendations have been implemented by the DENR and that some were only partially implemented or not at all implemented. The DENR should make a strong effort to implement all the recommendations or provide a reasonable explanation on why other recommendations were only partially or not implemented.

Perceptions of Key Informants and local Stakeholders on Reforestation Issues

The above implementation problems cited in COA (Various Years) were discussed in KIIs with selected DENR personnel at the national, regional and local levels and the FGDs with the members of POs involved with the NGP in the selected sites in the Caraga region. The purpose of the discussion was to generate the perceptions of the stakeholders on the severity of the problems and their comments and suggested solutions to the cited problems. The results are presented in Table 18.

The results indicated the many of the problems were considered by the stakeholders as mild. Furthermore, most of the problems which were seen as serious were occurring only in some areas. Among the problems, only limited manpower and financial resources of the DENR, including for monitoring and enforcement, was perceived as a serious problem in all the areas covered by the study. In addition, for all the cited problems, the stakeholders provided various comments as well as recommendations on how to address them. This can be taken as an indication that the problems are not perceived by the stakeholders as insurmountable and could be corrected if effectively addressed.

Table 18: Perceptions of Key Informants and local Stakeholders on Reforestation Implementation Issues, 2012

Problems	Severity	Comments/Recommendations
The DENR failed to conduct periodic and consistent M&E.	Mild problem	<p>Comments:</p> <ul style="list-style-type: none"> - Monitoring teams of the DENR at all levels actually exist and do their work diligently except during the occurrence of fortuitous events like typhoons and floods. <p>Recommendations:</p> <ul style="list-style-type: none"> - The monitoring and evaluation teams could include non-DENR personnel such as those from other government agencies, LGUs and other stakeholders. - The possibility of employing third party monitors and evaluators at certain levels should be considered by the DENR. This will further validate M&E results.
The desired seedling survival rates are not attained.	Mild problem	<p>Comments:</p> <ul style="list-style-type: none"> - Some seedlings come from far distances and are already stressed when they arrive at the reforestation site. - Transported seedlings are not properly handled increasing stress. - Transported seedlings are not immediately planted because the planting area is not yet ready. <p>Recommendations:</p> <ul style="list-style-type: none"> - On-site seedling production must be pursued by the POs to eliminate stress and costs of transportation. It will also fill-up any gap in seedling supply from outside sources. - Proper handling of transported seedlings must be practiced to minimize stress in transportation. - Updating of seed calendar must be done as inconsistent weather and climate change affect the seedling production and planting process. - Clonal facilities of the DENR must be operated in all regions to enhance the consistency of supply good quality seedlings.
Few beneficiaries do maintenance	Mild problem	<p>Comments:</p> <ul style="list-style-type: none"> - POs may not conduct intense maintenance

and protection activities.		<p>and protection when funds for maintenance and protection are not available, such as in the first year of implementation of the NGP.</p> <ul style="list-style-type: none"> - Having to work in their main livelihoods to support their families may make poor members of POs put secondary important to maintenance and protection. <p>Recommendations:</p> <ul style="list-style-type: none"> - Maintenance and protection funds must be released on time. - The fund for maintenance and protection of P3,000 per hectare annually is inadequate and must at the least be doubled.
The release of funds for reforestation is delayed.	Mild problem	<p>Comments:</p> <ul style="list-style-type: none"> - The mobilization funds for the first year of implementation are delayed due to government bureaucracy. - NGP funding is seen as low given its ambitious targets and compared to past reforestation projects. <p>Recommendation:</p> <ul style="list-style-type: none"> - Overall funding of the NGP should be increased given its grand and increasing annual targets. - Funds for the development of other livelihood opportunities for POs should be considered.
The IAC is negligent.	Mild Problem	<p>Comments:</p> <ul style="list-style-type: none"> - The Personnel concerned are not actually negligent but overburdened due to multitasking brought about by limited manpower at the DENR. - The personnel concerned may not be properly supported in terms of resources at his/her disposal. - Sometimes, the IAC is forced to accept seedling from the limited number of outside suppliers because planting targets have to be met. <p>Recommendations:</p> <ul style="list-style-type: none"> - More personnel and financial resources should be allotted to the committee so they can adequately perform their job.
Preparation of	Mild	Comments:

required documents is slow.	Problem	<ul style="list-style-type: none"> - POs are not trained well on the preparation of documents and this lengthens the process (see below). - DENR concerned are multi-tasking in different assignments. <p>Recommendations:</p> <ul style="list-style-type: none"> - Beneficiaries should be trained to prepare documents properly. - Additional staff should be hired to specialize in the handling and management of documents. - Both beneficiaries and the DENR should train in the preparation of documents for the access of funds from outside sources, such as the World Bank.
Beneficiaries are poorly selected.	Mild problem	<p>Comments:</p> <ul style="list-style-type: none"> - When the PO is the only one operating in an area, it is likely selected due to absence of competition from other POs. <p>Recommendations:</p> <ul style="list-style-type: none"> - The standards for the selection of POs should be strictly implemented (see below). - Other things the same, POs with proven good records in reforestation should be preferred.
Substandard seedlings from improper sources are used.	Serious problem in some areas	<p>Comments:</p> <ul style="list-style-type: none"> - Quality of seedlings can never be completely known for some time. Thus the science of determining quality seedlings especially from other sources is not perfect. <p>Recommendations:</p> <ul style="list-style-type: none"> - Seedling standards should be strictly implemented and complied with. - Non-DENR seedlings must be sourced only from registered suppliers. - POs must be trained in the selection of seedlings. - Clonal nurseries should be strongly supported (see below)
Some reforestation areas are unsuitable.	Serious problem in some areas	<p>Comments:</p> <ul style="list-style-type: none"> - Selection is not always based on technical grounds. Political and other considerations can come in. - The selection of appropriate trees to be planted in some sites is well done.

		<p>Recommendations:</p> <ul style="list-style-type: none"> - Selection should purely be on non-political grounds. - Physical conditions, such as soil quality, and other important parameters, such as climate, should be strictly considered
Local politicians intervene in reforestation.	Mild problem	<p>Comments:</p> <ul style="list-style-type: none"> - Some local politicians campaign at the DENR to have their reforestation areas increased. <p>Recommendations:</p> <ul style="list-style-type: none"> - Local politicians should be properly educated on the importance of proper selection and management of reforestation areas.
Typhoons and other natural calamities impede reforestation.	Serious problem in some areas	<p>Comments:</p> <ul style="list-style-type: none"> - Natural hazards impede reforestation in hazard prone areas, provinces and regions. - Natural hazards interfere in the reforestation cycle, such as in seedling production and planting. <p>Recommendations:</p> <ul style="list-style-type: none"> - Geo-hazard mapping (e.g. identifying land areas susceptible to landslides due to continuous rains) for the proper location of reforestation areas. - There should be continuous research of species that are resistant to drought, excessive water and other unwelcome weather and climate factors.
Diseases attack seedlings and trees.	Serious problem in some areas	<p>Comments:</p> <ul style="list-style-type: none"> - Some species such as falcata and fruit trees are highly susceptible to diseases. <p>Recommendations:</p> <ul style="list-style-type: none"> - Integrated pest management (IPM) in reforestation should be reinforced with sufficient training and facilities. - Preventive monitoring should be intensified in seedling production. - Maintenance and protection should be consistently practiced. - The planting of disease resistant species should be considered.

Planted trees are poached.	Mild problem	<p>Comments:</p> <ul style="list-style-type: none"> - All trees, not just the replanted ones, are poached whenever the poachers see an opportunity. <p>Recommendations:</p> <ul style="list-style-type: none"> - POs should assiduously guard their reforestation areas. - The local and barangay governments should impose stiff penalties on poachers. - Livelihood opportunities in reforestation areas should be enhanced to reduce poaching.
Seedlings are trampled on by animals.	Mild Problem	<p>Comments:</p> <ul style="list-style-type: none"> - Freely roaming animals, such as cow and goat, eat unprotected seedlings. <p>Recommendations:</p> <ul style="list-style-type: none"> - Domestic animals should be corralled properly by owners. - Local and barangay governments should impose still penalties on violators. - Planted seedlings should be protected by a surrounding individual fence.
DENR has limited manpower and financial resources, including for M&E.	Serious problem in all areas	<p>Comments:</p> <ul style="list-style-type: none"> - This is issue is common not only in reforestation but in the entire public governance in the country. <p>Recommendations:</p> <ul style="list-style-type: none"> - Budgets for reforestation programs and projects must be increased to match targets.
Peace and order conditions are unstable in some areas.	Mild problem	<p>Comments:</p> <ul style="list-style-type: none"> - Interference of the left and indigenous people in a few areas is reported. <p>Recommendations</p> <ul style="list-style-type: none"> - The peace process must be intensified. - “Bantay Gubat” or the hiring of ex-rebel returnees in high risk areas should be intensified.

Sources of Information: Key informant interviews and focus group discussions

On the issue that the preparation of required documents is slow, in particular, the stakeholders elaborated that for the NGP, the following are required before a PO can be considered for participation:

- Certificate/Proof of registration and accreditation
- List of elected PO officers
- Regular meetings are held and minutes of meetings kept.
- Functionality of the organizational structure
- Clear definition of tasks and functions relative to the community subproject implementation
- Clear mandate for the PC by PO
- Attendance or conduct of leadership/organizational building training/workshop
- A bookkeeper, treasurer and auditor are designated/elected and received training;
- Updated and accessible financial records
- The abovementioned financial staff received at least simple bookkeeping training
- At least 70 percent of the members regularly paying monthly dues

The stakeholders argued that the aforementioned documentary requirements are certainly voluminous and streamlining them for one will certainly help the POs comply, in addition to sufficient training on their part on the preparation of the required documents and the other recommendations they put forward on the matter.

On the issue that beneficiaries are poorly selected, the stakeholders further explained that the organizational and financial capability requirements imposed related to the selection of POs for actual participation in the NGP are the following:

A. Organizational

- Must be SEC or CDA or DOLE registered PO (with active registration status)
- With democratically elected and functional leadership and membership.
- Management Committee with Procurement Committee established and made functional relative to the task to be undertaken.
- Preferably have undergone organization building or leadership training/seminar

B. Financial

- Financial management system is in place
- Undergone simple bookkeeping training
- Membership fees/dues paid regularly

The stakeholders explained that sometimes some of the aforementioned requirements may be bypassed due to political and other reasons. Thus, it is important that they are strictly implemented. Furthermore, extra care should be exercised by the concerned authorities to determine real POs from the so called fly by night POs.

On clonal nurseries, in particular, key informants explained that seventeen SUCs have already been identified by the DENR to help in raising quality native tree seedlings and to help achieve 1.5 billion quality planting materials for the NGP. It is also expected that around 29 SUC-based clonal nurseries will be established before the end of year 2012. These new nurseries are in addition to the clonal nurseries already existing under the DENR's national clonal production program.

The key informants further explained that through a technique called “vegetative clonal technology,” cloned seedlings are grown from cuttings of premium donor plants that were carefully collected from the forest floor when they were still wildlings for their desired qualities. These wildlings are then “pampered” at a clonal nursery to produce robust stems that are harvested and, in turn, undergo maintenance care to grow roots lasting up to five months with the help of root-growing hormones, before they are distributed. *Thus, the national clonal nursery production program of the DENR together with the SUCs should be supported and provided adequate funding because it will help address the problem of inadequate supply of good quality seedlings.*

Perceptions of Key Informants and local Stakeholders on Reforestation Performance

Presented below are the results of the KIIs with selected DENR personnel at the national, regional and local levels and the FGDs with the members of POs on the performance of reforestation activities of the DENR as a whole and the NGP in particular (Table 19).

Table 19: Perceptions of Key Informants and local Stakeholders on Reforestation Performance

Question	Response	Explanation
<i>I. Overall Reforestation Program of DENR</i>		
a. Is the entire reforestation program successful in attaining its stated objectives?	Somewhat	Although overall targets in terms of area planted were not attained, some individual targets were achieved. Reforestation in some areas significantly helped increase rural incomes and livelihood and employment opportunities
b. Has the program actually increased forest cover in your area?	Yes but	The program raised forest cover but in some areas this gain is reduced or even negated by the illegal cutting of trees.
c. Has the program actually increased fauna biodiversity in your area?	Yes	In some areas, wild animals like pigs, deer, snakes, monkeys and others which were gone are observed to have returned,
d. Has the program actually increased flora biodiversity in your area?	Yes	In some areas, plants like shrubs, ferns and other indigenous fauna which were gone were observed to have returned.
e. Has the program actually increased the number of tree species in your area?	Yes	Reforestation increased visitation by birds which carried tree seeds. Dormant tree seeds also grow again.
f. Has the program actually increased the availability of food in your area?	Yes	Fruit trees provide food. Fish in deeper rivers are more available. Some plants are consumed as vegetables. Some animals like frogs are also eaten. Even endangered

		animals are sometimes caught and eaten.
g. Has the program actually increased water availability in your area?	Yes	Both underground and surface waters are available in greater volumes even in the height of summer.
h. Has the program actually improved water quality in your area?	Yes	Both underground and surface waters are clean because the trees serve as a natural water cleaning mechanism.
i. Has the program actually improved downstream irrigation in your area?	Yes	Some reforestation projects were actually established in watersheds that support irrigation.
j. Has the program actually improved the climate in your area?	Yes	The surrounding areas are cooler in reforested areas even in summer. The overall natural ambience is also better.
k. Has the program actually reduced landslides in your area.	Yes	Landslides are reduced in sloping areas and particularly important when close to roads and pathways.
l. Has the program actually reduced floods in your area?	Yes	Floods are prevented or reduced since the trees soaked in the water and control water down flow to manageable rates.
m. Has the program actually reduced overall poverty in your area?	Yes but	It helped but poverty has remained because of other reasons like the lack of capital to buy farm inputs and equipment.
n. Has the program actually increased personal incomes in your area?	Yes	It increased the incomes of nursery operators and other input suppliers in particular.
o. Has the program actually increased livelihood opportunities in your area?	Yes	In some areas, sari-sari stores have sprouted close to reforestation areas. The demand for labor for tree maintenance has also increased.
p. Has the program actually reduced social conflicts and improved social cohesion in your area?	Yes But	Membership in POs doing reforestation improves interpersonal relations. However, members also compete for instance in the choice of sites to steward within the reforestation area. Jealousy can also happen between POs and outsiders.
q. Has the program actually reduced insurgency in your area?	Maybe	Reforestation programs in general are not affected or affect the insurgency situation. PO members do not indicate if they were former insurgents or anti-government.
r. Has the program actually reduced the illegal cutting of trees in your area?	Yes	The PO members acting individually as a group police their own areas and thus discourage the illegal cutting of trees by outsiders.
s. Has the program actually improved environmental awareness in your area?	Yes	Awareness is much improved among PO members. This awareness also trickles down to the other members of the community through daily interaction and exchange of ideas and information.

t. Has the program actually improved coordination between national agencies and LGUs?	Yes	In a lot of cases, the DENR offices coordinate with the pertinent LGU units. However, in general, LGUs and local politicians seldom interfere with DENR reforestation. In a few cases, sitting local officials bargain for bigger reforestation projects in their areas.
II. NGP		
a. So far, is the NGP being effectively and efficiently implemented?	Partially effective and efficient	There was a delay in the initial implementation due to the delay in the availability of the mobilization fund. The limited personnel of the DENR for the NGP program at all levels has also constrained implementation.

Sources of information: Key informant interviews and focus group discussions

The results indicated that based on the perception of stakeholders, the reforestation program of the DENR has scored positive points in many fronts. Firstly, it was viewed as having actually improved forest cover although this was mitigated by the continued incidence of the illegal cutting of trees. On the other hand, the program was also reported to have actually reduced the illegal cutting of trees. Secondly, in terms of mitigating the impacts of climate change on the natural environment, the program was seen to have actually increased the flora, fauna, and tree species; raised water availability and quality; promoted downstream irrigation; controlled flood and landslides; made the climate cooler in the covered areas and; increased environmental awareness.

Thirdly, on poverty alleviation, it was perceived to have actually raised the availability of food, personal incomes and livelihood opportunities of the local people although poverty remained an issue due to due to inherent problems including the lack of capital to buy farm inputs and equipment among them. Furthermore, reforestation was seen as helping reduce social conflicts and probably the insurgency problem in some areas. Finally and institutionally, the reforestation program was seen to have actually improved the coordination between the national and local branches of government.

Despite the aforementioned positive perceptions, however, the stakeholders viewed the reforestation program of the DENR as being only partially successful in attaining its objectives and the NGP as being only partially effective and efficient in its implementation. For the NGP, in particular, the stakeholders asserted that there was a delay in the initial implementation due to the delay in the availability of the mobilization fund and the limited personnel of the DENR for the NGP program at all levels has constrained implementation.

V. Implementation Arrangements of the NGP

Overall Arrangements

The overall implementation arrangement for the NGP has been provided for in Sections 4 to 7 of EO 26. Section 4 mandates that the members of the Steering Committee under the DA-DAR-DENR Convergence Initiative shall constitute the NGP Oversight Committee to be chaired by the DENR which will be the lead agency for the NGP. Section 5 stipulates that the NGP shall be implemented in partnership with various agencies and stakeholders. Section 6 provided that all participating agencies/institutions shall issue their respective guidelines to implement the NGP and Section 7 stipulated that funds needed for the implementation of the NGP for the current year shall be provided by the DBM and funding for the succeeding years shall be incorporated in the regular appropriation of participating agencies. In addition to the aforementioned, Section 3 of EO 26 provides the strategies for the implementation of the NGP which include social mobilization, harmonization of initiatives and provision of incentives, and monitoring and management of database.

An Implementation Plan for CY 2012 for the NGP (DENR, DAR and DA 2012) was prepared. However, the final copy of this document only came out in the second half of year. During the first half, a draft implementation plan was made available and distributed to field offices instead. *Thus, the final implementation plan is decidedly late. It is recommended that for 2013 and onwards, efforts should be done to review and improve the annual plans at an earlier timeframe. Furthermore, it is not clear in the final implementation plan if other participating agencies as well as stakeholders were involved in its preparation at different stages. The involvement all the different actors would be needed for the implementation plan in particular and the NGP in general to gain wider acceptance among all participants and stakeholders.*

Among the salient features of the final implementation plan on project management and supervision are the following:

- a. The NGP Oversight Committee headed by the DENR Secretary with the respective Secretaries of DA, DAR, DSWD among others, as members, provides the overall management and supervision of NGP. The Committee is supported by the NGP National Coordinator assumed by the Assistant Secretary for Special Projects, who is in charge of the overall coordination of program operations.
- b. A NTWG headed by the Office of the Undersecretary for Field Operations with the members from the different DENR units lends support to the Oversight Committee and the National Coordinator in NGP implementation and operations. The FMB serves as the Secretariat of the NTWG.
- c. An EP composed of forestry experts provides advice to the National Coordinator, along with inputs on matters pertaining to technical, policy and monitoring and evaluation.
- d. At the regional level, the RDCs shall endorse the NGP programs and projects in the Regional Development Plan and shall coordinate the preparation and implementation

of M&E for NGP. NGP shall utilize, strengthen and/or activate organizational structures already in place to act as the regional TWG (e.g., Environmental Committee of the RDC) that will support DENR in NGP operations. This RTWG shall be chaired by the DENR RED, with members composed of NGP partner agencies, local government units, CSOs, POs, and others deemed necessary by the RTWG.

e. To support the program at the provincial and municipal levels, NGP shall likewise use existing bodies, councils, or groups to act as technical working group. If necessary, the program may create TWGs for these two levels to be chaired by the PENRO and CENRO, respectively. Close coordination and regular consultation with the LGUs shall be maintained.

f. The TWGs shall coordinate with corresponding development councils at the regional, provincial, municipal and barangay development levels as appropriate.

While the functions and composition of the development councils at all levels of government administration in the Philippines are already clear, those of the TWGs for the NGP at levels are not. Thus, the implementation plan for 2013 can be improved by specifying the functions and composition of the TWGs. The participation of the academic, research and scientific community from both the government and private sectors in the TWGs, where possible, should be ensured. Representatives from the technical, economic, social, environmental, institutional and other relevant aspects of reforestation should be included.

Implementation Arrangements with National Government Agencies

Compared to the draft implementation plan, the final implementation plan is commendable in that it laid out the specific roles of participating institutions in the production of seedlings. *Still, the different NGAs involved in the NGP should be required to come up with their own plans and implementation arrangements related to the NGP. If possible, these documents may form part of the final implementation plan of the NGP for 2013.*

Implementation Arrangements with Local Government Units

The roles of the LGUs implementation arrangements for the NGP are made clear in (d), (e), and (f) above. *Suffice it to state here that the specific terms of the involvement of concerned LGUs should be laid out in formal documents, such as MOA, to avoid misunderstandings and confusion between them (including currently sitting local politicians) and the national agencies and other stakeholders in the implementation of NGP projects in local the areas.*

Implementation Arrangements with Other Stakeholders

The final implementation plan has stipulated roles for POs, SUCs, private partners and other stakeholders, particularly in seedling production. *For 2013, the roles of the stakeholders in other areas of NGP work may be elaborated. The implementation plan may include the criteria for the selection of the various stakeholders to be involved in NGP projects and the process of selection of final*

stakeholder participants. The selected participants should be required to come up with their respective plans and implementation arrangements related to their participation.

Other Features of the Final Implementation Plan

In addition to the aforementioned provisions, the final implementation plan for CY 2012 has the following important provisions:

a. For maintenance and protection, the plantation should attain a minimum survival rate of 85 percent, otherwise replanting should be undertaken.

Since past experience shows that the minimum survival rate is not always attained or surpassed, it would help to explain why the choice of 85 percent minimum survival rate, and not higher or lower, is appropriate. Furthermore, survival rates, and not area planted may be used as a more appropriate measure of performance of the NGP and thus should be assiduously monitored.

b. For reporting, the CENRO, PENRO, Regional TWG shall submit to the Office of the Undersecretary for Field Operations copy furnished NGP National Secretariat, FMB, PAWB, ERDB, and DENR their physical accomplishment reports using the prescribed format and following required frequency.

It would be of national interest if the regional auditors of COA will be regularly provided copies of the physical accomplishment reports at the regional and local levels. These reports should be duly signed by concerned NGP coordinators, CENROs, PENROs, REDs and REDs and then notarized.

c. For Reporting, the DENR field implementers shall submit their physical and financial performance reports regularly, with focus on the utilization of funds relative to NGP implementation in their area of responsibility. The report shall be submitted following the prescribed format thru electronic copy of any fastest means to the Chief, Budget Division and Chief, Project Development and Evaluation Division, DENR Office. Annual report shall be duly signed by concerned NGP coordinators, CENROs, PENROs, RTDs, REDs and notarized.

Given that as cited earlier the results of the UDP in 2010 could not be determined due to management failure to do monitoring and evaluation, copies of these physical and financial performance reports should also be submitted regularly to the regional auditors of the COA to form some of the basis of their annual audit reports.

d. For monitoring and evaluation, the DENR at appropriate level will conduct regular M&E of accomplishments. An M&E report shall be rendered indicating the findings, observations including recommendations to improve the performance. The report shall be accompanied by actual photographs and map of the area planted. To ensure transparency, accountability and integrity of NGP data and information, third party monitoring shall be implemented. The PPSO shall lead in the preparation of the M&E framework and tool.

Since monitoring and evaluation appears to be a recurring problem in reforestation programs, this portion of the implementation plan of the NGP should be clearly spelled out. For instance, specifically who at the local, regional and national levels will conduct the monitoring and evaluation and how are they chosen? Who will monitor the monitors? If independent third party monitors are to be engaged, who are they and how are they selected?

e. For hiring of extension officers, they shall be hired to assist the NGP coordinators in implementing the Program specifically by providing technical assistance to POs and upland communities thru extension services. The guidelines governing the hiring, organizational arrangements, terms of reference, measure of performance of Extension Officers have been finalized and circularized for information and guidance of all concerned. *These guidelines are contained in Annex I of the final implementation plan for CY 2012 and are generally deemed sufficient.*

f. For incentives, awards, and sanctions, the national TWG shall determine and recommend awards for best performing DENR personnel and partner organizations. On the other hand, it shall recommend appropriate sanctions to erring and non-performing DENR personnel.

The incentives and awards to be provided under the NGP should be performance-based most of all. Given that part of the objectives of the NGP is poverty alleviation, incentives maybe financial in nature while awards could be in the form of tangible economic benefits (not just plaques of appreciation and the like). Sanctions should be as stiff as could be imposed under existing laws in order to discourage potential offenders from committing infractions. The nature of these incentives, awards and sanctions should be spelled clearly in the implementation plan.

All proceeds from agroforestry development shall accrue to the POs. Likewise; the POs shall be endorsed in the DSWD Pantawid Pamilya Program or CCT). The field offices must coordinate with the DSWD counterparts concerning submission of all member-households of participating POs. Screening for CCT eligibility of households shall be done by the DSWD.

At present, while the CCT program in the Philippines targets the poor in general, it does not zero in on sub-sectors where the very poor in society are prevalent such as upland farmers and forest dwellers. Being a poverty reduction and social development strategy of the government, it concentrates only on health, nutrition and education considerations in choosing recipients among the poor households.

In addition to health, nutrition and education, however, there may be the need to include the natural resources and environment as a basis for the granting of conditional cash grants. For instance, among the conditions for the future selection of very poor households to qualify for CCT may be a) their role and performance in the stewardship of natural resources and the environment; and b) their extreme vulnerability to climate change-related natural hazards (such as very poor households in typhoon-prone areas). At present, has been reported that the DA, DENR and DAR together are developing a mechanism for targeting very poor

households in the agriculture and environment-dependent sectors for CCT inclusion. This so called e-CCT is also reported to be piloted soon with funding that includes that from foreign donors.

On a broader scale, the e-CCT showed be fast tracked for all relevant natural resources and environment subsectors including forestry. In the near future, a sub-program under the NGP may also be created that allows e-CCT that is based specifically on forest stewardship in reforested areas. Furthermore, since CCT is a way of promoting the non-reforestation and poverty alleviation aspects of the NGP, it should be given more emphasis and made clearer in the final implementation plan.

g. For capacity building, the human resources division of the DENR in coordination with bureaus/offices concerned shall develop appropriate capability building program to enhance the knowledge and skills of DENR field personnel, extension officers, CBFM POs, and other partners including the local government units who are involved in NGP activities.

As in the case of the other components of the implementation plan of the NGP, the capacity building feature of the plan should be spelled out and made clear beyond the generalities. For instance, since other stakeholders outside of the DENR will be involved in capacity building, how are the costs of the efforts in this regard shared among the participants? Given the relatively short span of 6 years of the NGP and it is into its second year already, what is the timeline of the capacity building program? Would the program produce the desired results given the limited budgets and time constraints?

h. For ACSM, the NGP works on the institutionalization of ACSM at the national, regional, provincial and municipal levels. It will build a network of advocates from various sectors such as government agencies (NGP being a convergence initiative program), POs, LGUs, schools and the academe among others. The DENR PAO and its counterparts at the regional level shall be in-charge of implementing ACSM in their areas and in disseminating/distributing the relevant ACSM materials. The program shall provide the necessary communication-related materials and assistance to advocates, particularly to DENR regional offices. Various ACSM materials are available for use to support and complement the field staff's work on the ground are presented in Table 4 of the final implementation plan for CY 2012. *The discussion on ACSM in the implementation plan is deemed sufficient for the time being but can be made more specific in 2013 in terms of schedules of actual activities and their indicative budgets.*

VI. Reassessment of Policies on Mining and Agro-Forestry that Adversely Impact on the Reforestation Program

Based on desk review of policies using past related literature and materials, the study found that there are policies in the mining and agro-forestry sectors of the Philippines that may have negatively impacted on the reforestation program of the government over the years. These policies are embodied in some national laws as discussed below.

RA 7942

The Philippine Mining Law of 1995 (RA 7942) has identified areas which are closed to mining operations including old growth forests, proclaimed watersheds, wilderness areas, mangrove forests, mossy forests, national parks, provincial and municipal forest, green belts, game refuges and bird sanctuaries, among others, and also classified all other areas open to mining operations such as open access forestlands and those areas covered by various agreements such as TLA, IFMA, SIFMA, CBFMA and others (FMB 2009). Furthermore, it allows the mining contractor to cut trees for use in the mining operations provided that the area is covered by an existing timber concession. *Hence, the mining law gives higher priority to mining over forestry and puts to risk second growth forests in mining areas. Although the law also requires that mining operations rehabilitate mined out second growth forests they have operated in, it remains doubtful that these forests can be brought back to their pre-mining state.*

PD 1899

The Small-Scale Mining Decree of 1984 (PD 1899) empowers provincial governors to unilaterally issue small-scale mining permits. Some claim that this may have resulted into many small-scale mining operations which operate without an ECC and are unmonitored. It is also reported that some large scale mining operations may break their operations into small scale units so that they are managed only by LGUs. *It has been argued that repealing PD 1899 will enable the DENR to take full responsibility over small-scale mining activities and fully implement the DENR's resource management functions of permitting, regulation, control and supervision of strategic minerals. It will also allow RA 7076 or the People's Small-Scale Mining Act of 1992 to be fully observed when it comes to regulating small-mining activities.* Small-scale operations are particularly damaging to forestry because small-scale miners cut trees for the timbering of their tunnels and for domestic and related purposes. The indiscriminate cutting of trees eventually leads to landslides and flashfloods in downstream areas causing significant destruction to lowland property and death or injury to the affected lowland population.

EO 23

In February 2011, President Aquino issued Executive Order 23 which imposed an indefinite log ban all over the country and create an Anti-Illegal Logging Task Force. The EO was perceived as a way to bypass Congress where previous attempts to pass measures to ban logging have failed. *Presently, there are also suggestions that legislation on a total log ban should be prioritized in Congress so that the rules to protect Philippine forests will be institutionalized for good even beyond the Aquino administration. A log ban, however, is seen as a faulty approach to forest management for many reasons.* Among others, Firstly, it is effective only when fully enforced which may not be possible given the limited resources and personal of the DENR to monitor and enforce and the propensity for some corruption in public administration. Secondly, it may turn many to become illegal loggers and continue to perpetuate the cutting of trees as exemplified by the Sendong tragedy which indicated that illegal logging is still going on. Thirdly, subsistence upland dwellers may swarm the forests and indiscriminately cut trees as concessionaires

abandon the areas they once protected. Fourthly, a logging ban results to the loss of public revenues, foreign exchange, incomes and employment in the logging industry and related sectors.

RA 9147

Based on the Wildlife Conservation and Protection Act (RA No. 9147) and its IRR, the DENR has issued a list of threatened animal and plant species, the latter of which includes commercial species found in the second growth forests. Classifying plant species as critically endangered, endangered, vulnerable and threatened virtually stops their harvesting as timber or collection for use in livelihood activities of the poor. The IIR has also mandated the DENR Secretary to designate within two years following the promulgation of RA No. 9147 critical habitats outside protected areas where threatened species are found which are to be protected from exploitation or destruction, in coordination with LGUs and other stakeholders. *While the establishment of the critical habitats will serve the protection and conservation of threatened plant species, it will also diminish the effective area where commercial harvesting and collection of plants for livelihood purposes can be done.*

EO 79

This EO was intended to institutionalize and implementing reforms in the Philippine mining sector. *While it and its amended IRR were generally welcomed by the mining industry, they were strongly opposed by civil society groups and other stakeholders.* The forestry and reforestation-related issues against EO 79 are as follow: a) The EO allows existing mining contracts within the “No-Go Mining Zones” to continue to be valid and in effect. This means the continued exploitation of natural resources, including forest resources, as most of those areas included in the “No-Go Mining Zones” have several existing mining operations; b) While the EO includes prime agricultural lands as part of the banned areas for mining, it does not include areas which are critical to or surrounding them, some of which maybe forested or reforested areas; and c) While the EO provides for moratorium of mining applications, it does not include the grant of exploration permits for mining companies and small-scale operations. The latter, especially, remains unregulated by the DENR for many years.

Reassessment of Policies

Without a more intensive quantitative and qualitative analysis of the impacts of the aforementioned policies and laws, it would be inappropriate to conclusively say whether or not the aforementioned policies and laws should be continued, amended or abolished. Given the time and resource constraints of this study, a more intensive assessment is out of the question and the following are instead recommended as future course of action in the regard.

Specifically, a fuller study should be commissioned using appropriate methods, e.g. cost and benefit analysis, related to the impacts of laws and policies pertinent to reforestation. This study should be a joint undertaking of technical, economic, social, institutional, environmental and other relevant researchers. All relevant stakeholders should be involved in the study and results should be disseminated to the proper audiences at all levels to gain support and acceptance.

The results could then be utilized as a basis in deciding whether the policies and laws should be continued, amended or abolished.

VII. Summary and Conclusion

The overall purpose of the study was to determine if the reforestation program of the DENR over the years has been successful in attaining its stated objectives and in mitigating the adverse impacts of climate change on forest resources and the natural environment. The corollary goal was to develop recommendations to improve reforestation activities in light of the NGP. In summary, among the most important findings of the study are: a) At the national level, the reforestation program of the DENR has only partially attained its replanting targets; b) Also at the national level, it appears to have become relatively inefficient in the conduct of replanting activities over the years; and c) At the individual site level, it may have been effective to some degree in increasing incomes and livelihood opportunities, improving the natural resource and environmental situation and achieving the other objectives of reforestation in many areas. Based on the findings, some recommendations for improvements particularly related to the implementation of the NGP were put forward by the study.

To end, much of the success of the NGP in particular and future reforestation programs of the country in general would depend on complex and sometimes intertwining factors. Other than the infusion of sufficient financial and manpower resources for the purpose, a reforestation program would have a better chance of attaining its objectives if its implementers can sufficiently monitor its current activities and effectively implement changes in its operations to address the problems encountered. It is hoped that the recommendations proposed by this study, although by no means comprehensive, will be afforded serious consideration and eventually implemented for the improved management of the NGP and future reforestation programs.

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Appendices

Appendix A: Terms of Reference for Zero-Based Budgeting Study

Assessment of the Efficiency and Effectiveness of the Reforestation Program of the Department of Environment and Natural Resources (DENR)

I. Background and Rationale

The ZBB approach or program evaluation was instituted in 2011 by the Aquino administration to assist in budget decision-making. Through the ZBB, existing programs that are no longer delivering the intended results/outcomes are either terminated or reduced in funding requirements, while efficient and effective programs that need expansion particularly those which directly affect the poor are provided additional budget to mitigate critical gaps in welfare services for the poor. For 2013, one of the programs that will be assessed using the ZBB is the impact assessment of the reforestation program of the DENR to determine if it has been successful in attaining its objective/outcome of mitigating the adverse impact of climate change on the environment.

Implementation Issues

Even before the NGP issued by the Office of the President under Executive Order No. 26 in 2011, reforestation or the establishment of forest plantations on temporarily un-stocked lands that are considered forest has long been implemented by the DENR. At present, based on the records of the DENR, of the 15.8 million hectares of forestland, only 7.2 million or 45% are still forested. However, based on the analysis of satellite maps by the JRC of the EU in 2007, only 19% of the country's land area remained forested. The decline in the forest cover was due to large scale legal and illegal logging, slash and burn (*kaingin*), collection of wood for fuel, and deforestation, among others, worsened by mining activities. These threats to forest resulted to flashfloods/flooding and landslides. Despite the implementation of reforestation and forest restoration programs, areas reforested during the period 2004-2010 were short of targets as only 60% of 130,000 hectares targeted were accomplished, though the largest allocation of the department's budget is lodged under its forest development program.

National Greening Program (NGP)

The issuance of NGP has been declared by the President as government priority with the goal of planting about 1.5 billion trees covering about 1.5 million hectares for a period of six years, 2011-2016. The NGP implementation is a multi-agency with the primary participation of DENR, DAR, and DA which have adopted a Convergence Initiative to integrate and strengthen the development framework between national government agencies, local government units and people's organizations, CSOs and other stakeholders that will complement human, financial and physical resources in support of the NGP. Inasmuch as the DENR is the primary agency responsible with the conservation, management, development and proper use of the country's environment and natural resources, it would be necessary to know the coverage, modalities, annual targets and cost for the DENR including its accomplishments in the NGP. Likewise, it is important to show if NGP addresses the issues and problems encountered in the reforestation program and what measures can be done to ensure the success of NGP.

Rationale for the Study

The proposed assessment of the reforestation program shall serve as important input for budget allocation purposes, i.e., whether additional funds will be needed if it is effective or scaled down if it is otherwise. Hence, the cost efficiency and effectiveness of the program will be determined as well as the causes of delays. Likewise, for the NGP, there is the need to determine/set the annual targets for the DENR out of the 1.5 billion trees to be planted for the period 2011-2016, the area coverage, the feasibility of attaining the targets of the department for the medium term in support of the NGP indicating the annual targets and funding requirements thereof as well as measures which can be done to ensure the success of the NGP.

II. Objectives and Results

The specific objectives of the study include the following:

1. To assess the accomplishment of the reforestation program for the past 20 years and determine the causes of delays in its implementation, associated programs/projects implemented and implementation arrangements with other NGAs and LGUs.
2. To determine if the reforestation program has been implemented efficiently and effectively in achieving its objective(s) of conserving the forest ecosystem in mitigating the adverse effects of climate change in the environment.
3. To understand the NGP in terms of its coverage, modalities, annual targets and cost and see if it addresses the issues and problems identified in the reforestation program and the measures to ensure the success of the program.
4. To assess existing master plans for reforestation and other tree planting programs and suggest measures for improvement considering the annual targets and annual funding requirements of DENR out of the goal set under the NGP.

III. Consultant's Scope of Work

In order to achieve the objectives of the proposed study, the work of the prospective consultant shall include the following:

1. Assessment of the accomplishment of the reforestation program for the past 20 years to determine the causes of delays/bottlenecks in its implementation including the associated programs/projects implemented.
2. Evaluation of the cost efficiency and effectiveness of the implementation of the reforestation program against its targets in terms of quality and quantity.
3. Identification of the (1) existing rehabilitated forestlands and assessing its current state, and (2) assessment of the remaining degraded/denuded forestlands where the reforestation program should be focused and/or concentrated.
4. Assessment of the NGP in terms of its coverage, modalities, annual targets and cost and see if it addresses the issues and problems identified in the reforestation program including the feasibility of achieving the goal for the DENR out of 1.5 million hectares for the reforestation program up to 2016.
5. Assessment of implementation arrangements among DENR, national government agencies, LGUs and the private sector to determine the best alternative option(s) for effective implementation of reforestation program as well as other reforestation programs under the NGP.
6. Assessment of existing plans for reforestation and other tree planting program and development of measures for improvement considering the annual targets and annual funding requirements of DENR out of the goal set under the NGP.
7. Re-assessment of government policies on mining and agro-forestry that adversely affect the implementation of the reforestation program.
8. Provide policy recommendation(s) on the best strategy to implement the reforestation program and achievement of the targets under the NGP.

IV. Expected Results/Deliverables

Based on the scope of work, the consultant shall prepare and submit the following deliverables:

1. Assessment report of the accomplishment of the reforestation program for the past 20 years including the causes of delays/bottlenecks in its implementation including the associated programs/projects implemented.
2. Evaluation report on the cost efficiency and effectiveness of the reforestation program against its targets in terms of quality and quantity.
3. Report on the identification of (1) existing rehabilitated forestlands and assessing its current state, and (2) remaining degraded/denuded forestlands where the reforestation program should be focused and concentrated.
4. Assessment report of the NGP in terms of its coverage, modalities, annual targets and cost and see if it addresses the issues and problems identified in the reforestation program including the feasibility of achieving the goal for the DENR out of 1.5 million hectares for the reforestation program up to 2016.
5. Assessment report on implementation arrangements among DENR, national government agencies, LGUs and the private sector to determine the best alternative option(s) for the effective implementation of reforestation and other programs under the NGP.
6. Report on re-assessment of government policies on mining and agro-forestry that adversely affect the implementation of the reforestation program.
7. Assessment report of existing plans for reforestation and other tree planting programs including measures of improvement considering the annual targets and annual funding requirements of DENR out of the goal set under the NGP.
8. Provide policy recommendation(s) on the best strategy to implement the reforestation program and other tree planting/reforestation programs including the achievement of the targets set under the NGP.

V. Work Plan

Table 1 below presents the work-plan of the study.

Table 1: Workplan for the DBB-ZBB Study on the Reforestation Program of the Philippines

Activity / Phase	March			April			May			June		
Inception Report												
Literature Review												
Secondary Data Gathering in Manila and Write-up of Results												
Pre-Submission Workshop (Presentation of Preliminary Results)												
Key Informant Interviews at Selected Sites												

		appropriating funds for the purpose.	
Presidential Decree No. 953	July 6, 1976	Requiring every person to plant trees in certain places and penalizing unauthorized cutting, destruction, damaging and injuring of certain trees, plants and vegetation	Bureau of Forest Development
Letter of Instruction No. 423	July 6, 1976	Directing active cooperation and participation of government agencies in government reforestation programs. Set up the RECOFEM	DANR, Department of National Defense , Department of Local Government and Community Development, Department of Public Works, Department of Transportation and Communication, Department of Public Highways, Department of Education and Culture, Department of the Civil Service Commission, Department of Youth and Sports Development, Department of Public Information, Department of Budget, Department of the National Science Development Board, Department of Human Settlements Commission, All others

			concerned
Presidential Decree No. 1153	June 6, 1977	Requiring the planting of one tree every month for five consecutive years by every citizen of the Philippines	Presidential Council for Forest Ecosystem Management
Presidential Decree No. 705 of 1975 as Amended by Presidential Decree No. 1559 of 1978 Revised Forestry Code of the Philippines	May 19, 1975; June 11, 1978	Created the Bureau of Forest Development (BFD) with line authority Mandated the adoption of multiple use, selective logging system and land classification; delineation of forestlands and industrial tree plantations; identification of key conservation and reforestation strategies; conduct of census; and initial recognition of forest occupants; Sec. 33 states forest lands to be reforested and/or afforested.	Bureau of Forest Development
Letter of instruction No. 818	February 24, 1979	Requires all holders of existing timber licenses, leases or permits to reforest denuded and/or brushland forest areas, for every hectare logged over	Ministry of Natural Resources and Bureau of Forest Development
Executive Order No. 725-1981	September 9, 1981	Facilitating the establishment of Industrial Tree Plantations	BFD, DANR

Letter of Instruction No. 1312	April 23, 1983	Mandating the establishment and development of local government forest or tree parks all over the Philippines (in every barangay)	LGUs
DENR Administrative Order No. 79, S. 1987	December 28, 1987	Requires timber licenses/permitees to make deposit for reforestation at P10, 000 per ha. For CY 1988. Thereafter, the amount shall be determined by DENR Secretary. Require reforestation of one hectare for every hectare logged.	FMB
DENR Administrative Order No. 32, S. 1988	May 5, 1988	Prescribing Guidelines for the Payment, Disbursements and Use of Reforestation Deposit Required Under DENR Administrative Order No. 79, Series of 1987	FMB
DENR Administrative Order No. 01, S. 1991	January 23, 1991	Increasing the Reforestation Deposit paid by logging concessionaires to include maintenance costs and further amending DAO 32, S. 1988 Reforestation deposit to include	FMB

		<p>maintenance costs of plantations.</p> <ul style="list-style-type: none"> -P10,000/ha of reforestation goal for current year -P1,500/ha of 1 year old plantation -P1,000/ha of 2-year old plantation <p>TLAs without open and denuded areas are allowed to conduct TSI which shall be twice the area approved for logging and deposit an amount equivalent to P3,500 per ha.</p>	
<p>Republic Act No. 7586 of 1992</p> <p>National Integrated Protected Area Systems (NIPAS) Act</p>	<p>June 1, 1992</p>	<p>An Act providing for the establishment and management of national integrated protected areas system, defining its scope and coverage and for other purposes.</p> <p>Allocated forestlands and forest resources as protected area systems for biodiversity purposes, preservation of habitats, watershed protection and maintenance of ecological balance</p>	<p>Department of Environment and Natural Resources, Protected Areas and Wildlife Division</p>
<p>Republic Act No. 7942</p>	<p>March 3, 1995</p>	<p>An Act instituting a new System of Mineral Resources Exploration, Development,</p>	<p>FMB</p>

		Utilization, and Conservation Sec. 69. Environmental Protection. The contractor is required to rehabilitate, regenerate, revegetate and reforest the mineralized areas.	
Executive Order 263-1995 (Community-Based Forest Management Strategy)	July 19, 1995	Adopting Community-Based Forest Management as the national strategy to ensure the sustainable development of the country's forestlands resources and providing mechanisms for its implementation	DENR, Local Government Units, Non-Government Organizations, People's Organizations
Department Administrative Order No. 21 Series of 1996	June 21, 1996	Guidelines for the establishment of Pilot Dipterocarp Plantation in support to the intensified reforestation efforts under the National Forestation Program	DENR, LGUs
Department Administrative Order No. 97-34	November 27, 1997	Tree planting near electric power line systems to reduce power distribution losses.	DENR, DOE, MERALCO, DILG
DENR Administrative Order No. 1998-13	March 16, 1998	Reversion of Mantigue Island from the Category of Alienable and Disposable Land to	DENR, LGU

		Forest Land.	
DENR Administrative Order No. 1999-13	May 13, 1999	Declaring Certain Portions of the Public Forestlands in Region 13 as the CARAGA Forest Plantation Corridor.	DENR, LGU of CARAGA Region
Forest Land Grazing Lease Agreement (FLGLA) Holders DENR Administrative Order No. 36, S. 1999	August 10, 1999	Revised Rules and Regulations Governing the Administration, Management, Development and Disposition of Forest Lands Used for Grazing Purposes.	FMB
DENR Administrative Order 99-53 (Ministry Administrative Order No.4, s.1980; MAO No. 5, s.1981; DAO No. 42, .1991; DAO No. 60, s.1992; DAO No. 97-04, and DAO No. 99-53)	December 23, 1999	Rules and Regulations Governing the Integrated Forest Management Program (IFMP)	DENR, FMB
DENR Administrative Order 2000-12	February 9, 2000	Requiring The Planting Of Permanent Trees On Portions Of Alienable And Disposable Areas Susceptible To Soil Erosion	DENR

DENR Memorandum Circular 2000-19	September 4, 2000	Guidelines Governing The Updating Of Cost Estimates And Intensification Of Plantation Maintenance and Protection Activities For DENR-FSP Watershed Subprojects Under JBIC Funding.	DENR
DENR Administrative Order No. 2001- 01	January 3, 2001	Payment of the Retention Fees for Community Organizing and Comprehensive Site Development of Subprojects Under Forestry Sector Project Funded by the Japan Bank for International Cooperation.	DENR
DENR Administrative Order No. 2002- 14	July 9, 2002	Proposed reversion to forestland category of an area declared as alienable and disposable for fishpond development located in Barangay Binulusan, Municipality of Infanta, Province of Quezon.	DENR, LGU
DENR Administrative Order No. 2003- 42	August 29, 2003	Guidelines for the Establishment of a Special Use of Forestland for Herbal/Medicinal Plantation	FMB

DENR Memorandum Circular No. 2003-18	September 19, 2003	Identification of Forest Areas for Establishment of African oil Palm (<i>Elaeis guineensis</i> Jacq) Plantation	DENR, DA-PCA
DENR Memorandum Circular No. 2004-06	August 9, 2004	Guidelines for the integration of rainforestation farming strategy in the development of open areas and denuded forests to promote biodiversity conservation and sustainable development in protected areas and other appropriate forest lands	DENR, DILG, LGUs
DENR Administrative Order No. 2004- 51	August 31, 2004	Declaring a Portion of the Osmena Reforestation Project Located in Camp 7, Minglanilla, Cebu as Experimental Forest Station	FMB, ERDB, DENR-7 PENRO and CENRO
Presidential Proclamation No. 396 as amended by Presidential Proclamation No. 643	June 2, 2003 June 9, 2004	Enjoining the active participation of all government agencies, including government- owned and controlled corporations, private sector, schools, civil society groups and the citizenry in tree planting activity and declaring June 25, 2003 as "Philippines Arbor Day"	All government agencies, government- owned and controlle d corporations, privat e sector, schools, civil society groups and the citizenry.

DENR Administrative Order No. 30, S. 2004	August 25, 2004	Revised Rules and Regulations Governing the Socialized Industrial Forest management Program	FMB, DILG, DENR, PENRO, CENRO
DENR Administrative Order No. 59, S. 2004	August 31, 2004	Rules and Regulations Governing the Special uses of Forestlands	FMB, DILG, DENR, PENRO, CENRO
DENR Administrative Order No. 2010- 11	May 5, 2010	Revised regulations governing forest tree seed and seedling production, collection and disposition.	FMB, ERDB, PAWB, PWPA, SFFI
Executive Order No. 26 National Greening Program	February 24, 2011	Multi-sectoral project harmonizing all the greening efforts of the private and public sector. To plant some 1.5 Billion Trees covering about 1.5 Million hectares for a period of six (6) years from 2011- 2016.	DA-DAR-DENR
DENR Memorandum Circular No. 2011-01	March 8, 2011	Guidelines and Procedures in the Implementation of the National Greening Program	DA-DAR-DENR

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