

MOREFORESTs

Management of Resources on Forestlands through
Enhanced Sustainable Technologies

Version 1.0

Imprint

As a federally owned enterprise, we support the German Government in achieving its objectives in the field of international cooperation for sustainable development.

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Maps

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Acronyms & abbreviations

ADSDPP	Ancestral Domain Sustainable Development Protection Plan	IFMA	Integrated Forest Management Agreement
AIP	Annual Investment Plan	IP	Indigenous People
ANR	Assisted Natural Regeneration	IPR	Individual Property Rights
BDC	Barangay Development Councils	IPRA	Indigenous Peoples Rights Act
BDP	Barangay Development Plans	JMC	Joint Memorandum Circular
CADC	Certificate of Ancestral Domain Claims	LGU	Local Government Unit
CADT	Certificate of Ancestral Domain Title	LOI	Letter of Instruction
CBFM	Community-Based Forest Management	M&E	Monitoring and Evaluation
CBFMA	Community-Based Forest Management Agreement	MEAT	MPA Effectiveness Assessment Tool
CCA	Climate Change Adaptation	METT	Management Effectiveness Tracking Tool
CDMP	Comprehensive Development and Management Plan	MIT	Municipal Implementing Team
CENRO	Community Environment and Natural Resources Office	MoA	Memorandum of Agreement
CLUP	Comprehensive Land Use Plan	MPDC	Municipal Planning and Development Coordinator
CMA	Co-Management Agreement	MRV	Measurement, Reporting and Verification System
CRMf	Community Resource Management Framework	NCI	National Convergence Initiative
CSC	Certificate of Stewardship Contract	NGP	National Greening Program
DA	Department of Agriculture	NIPAS	National Integrated Protected Areas System
DAO	Department Administrative Order	PACBRM	Protected Area Community-based Resource Management
DAR	Department of Agrarian Reform	PACBRMA	Protected Area Community-based Resource Management Agreement
DENR	Department of Environment and Natural Resources	PAWCZMS	Protected Areas Wildlife and Coastal Zone Management Service
DILG	Department of the Interior and Local Government	PDF	Philippine Development Forum
DRR	Disaster Risk Reduction	PENRO	Provincial Environment and Natural Resources Office
eCCT	Conditional Cash Transfer for Environmental Services	PFAT	Provincial Forestland Assistance Team
EnRD	Environment and Rural Development Program	PPP	Public-Private Partnership
ENRO	Environment and Natural Resources Office	PRA	Participatory Resource Assessment
EO	Executive Order	RBM	Results-Based Management
ESFMT	Enhanced Sustainable Forest Management Technologies	REDD+	Reducing Emissions from Deforestation and Forest Degradation Plus
FLUP	Forest Land Use Plan	RFAT	Regional Forestland Assistance Team
FMB	Forest Management Bureau	RMPs	Resource Management Plans
FMS	Forest Management Service	RUP	Resource Utilization Permit
FPIC	Free Prior and Informed Consent	SB	Sangguniang Bayan
GIS	Geographic Information System	SIMPLE	Sustainable Integrated Management and Planning for Local Government Ecosystems
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit	SO	Special Order
GPS	Global Positioning System	TLA	Timber License Agreement
IEM	Integrated Ecosystems Management	VA	Vulnerability Assessment

Top reasons to adopt MOREFORESTs

- 1 **MOREFORESTs** increases income of local communities through enhanced sustainable forest management technologies.
- 2 **MOREFORESTs** provides incentives to resource managers to protect and sustainably manage forestlands.
- 3 **MOREFORESTs** facilitates judicious allocation and issuance of security of tenure.
- 4 **MOREFORESTs** enhances the capacity of the forests to sustainably provide goods and services.
- 5 **MOREFORESTs** enables effective enforcement of laws, policies and priority programs.*
- 6 **MOREFORESTs** is an effective approach in mitigation and adaptation to climate change.

* Such as the roll-out of Forest Land Use Plans, Indigenous Peoples Rights Act, Reducing Emissions from Deforestation and Forest Degradation Plus (REDD+), the National Greening Program, Co-Management Agreement, Community-Based Forest Management (CBFM) and protected area management for biodiversity conservation (e.g. NIPAS and other innovative strategies), etc.

MOREFORESTs

Looking back, moving forward

The forestlands (public lands) belong to the State

The total land area of the Philippines is 30 million hectares. As of 2011, classified forestlands covered 15.05 million hectares (50%), unclassified forestlands of 0.755 million hectares (3%) and Alienable and Disposable (A&D) lands of 14.19 million hectares (47%), which means the land can be titled (PFS 2011). The Regalian Doctrine states that “all forestlands (public lands), practically half of the country, belong to the State”. As such, it is the State through the Department of Environment and Natural Resources (DENR) that allocates and issues user rights and tenure instruments to gain economic benefits and ensure ecological services.

Public lands are further divided into: forest reserves and national parks, civil and military reservations, lands allocated to communities, lands allocated to the private sector and unallocated. Unallocated land accounts for around one-fourth of the public lands and is de facto under open access.¹

Only about 6.4 million hectares of the public lands were actually covered with forest in 2003.² These include closed and open forests, mangrove forests and plantation forests, accounting for 41% of the public lands and 21% of the total area of the Philippines.³ The forest cover today is estimated to be around 23%. The decline of forest cover from around 90% in the 1900s down to 23% by 2009⁴ is the result of the interplay of history, policies and social and economic factors.

Widespread logging was responsible for much of the historical forest loss in the Philippines

Exporting logs started as early as the 1900s. As the economy developed, and the population rapidly increased, so did the extraction and conversion of forests into agriculture use. The Philippine hardwoods filled the market demand worldwide, and the logging boom, during the 1960s, blanketed nearly one-third of the entire country with logging concessions. The number of forests declined, and the capacity of the forestlands to sustainably provide the goods and services – production, protection, social and ecological functions – was put into question.

¹ Guiang & Castillo, 2006

² Forest Management Bureau-DENR, 2009

³ Guiang & Castillo, 2006

⁴ FMB, 2009; Walpole, 2010







Forestlands into open access and the evolution of local resource managers

The government changed its strategy after the People Power Revolution in 1986. Logging in old growth forests was banned by the DENR. The 1987 Constitution implicitly cancelled the DENR's power to license private exploitation of the forest resources. As a result, the number of Timber License Agreements (TLAs) held by powerful families declined sharply, but a new scheme (Integrated Forest Management Agreement or IFMA) was introduced.

To illustrate, in 1977, there were a total of 376 TLA holders covering 10 million hectares, and at the end of 2000, only 20 TLAs existed covering less than a million hectares. In 2011, there were only three left covering an area of 177,000 hectares. The reverse happened for IFMAs and Industrial Tree Plantation Lease Agreements (ITPLAs) where there were only 12 covering 88,000 in 1980, which increased to 81 with 304,000 hectares and ballooned to 184 (548,000 hectares) in 2000 and slightly decreased to 146 in 2011 but the area increased to 1.034 million hectares (PFS 2011). The shift in the policy created a vacuum and practically reverted around 7.7 million hectares of forestlands into open access areas (156 CADTs covering 4.2 million hectares and 1,790 CBFMAs spanning 1.634 million hectares have been issued).

Immediate, individual-based overexploitation of forest resources set in and caused the forests to further decline. Exacerbating this is the exponential rise in upland population currently estimated at 30 million and the attendant poverty and dependence on the forests. Cognizant of the important role of on-site managers, an agreement was forged between the DENR and DILG to share environment and natural resources management responsibilities through Co-Management Agreement (CMA). Coupled with this, people-oriented forestry projects that started in the early 80s were consolidated into the Community-Based Forest Management in 1995 as the national strategy for the sustainable management of the country's forestland resources.

The involvement of different departments and agencies, each with enabling laws and guidelines, leads to problems, such as long bureaucratic processes and overlapping functions

The national policy stipulates that only agricultural land may be privately titled, whereas forestlands are reserved to public ownership in perpetuity. However, the Environment and Natural Resources Framework (2006) cites that government estimates in the early 80s suggested that 13% of productive forests and 21% of old growth productive forests were found on A&D lands, whereas 29% of total



area in permanent or annual crops was on forestland. The flawed allocation of public lands will persist in the absence of a coherent national policy on land use.

Environmental agreements and commitments urge the integration of emerging challenges such as climate change, disaster risk management and a ridge-to-reef approach to land use planning

Conversion of natural forests into agricultural land and improper land management practices on the ground have led to environmental problems, such as soil erosion, water scarcity, loss of biodiversity and diminishing defense against natural disasters.

In the international scene, the Philippines is one of the mega biodiverse countries but also earns the undeniable reputation of being among the hottest of the hotspots for the continuous decline of terrestrial and marine biodiversity. The country is a signatory to a number of multilateral environmental agreements that aim to safeguard the welfare of Indigenous Peoples and local communities, conserve biodiversity and contribute to mitigation of the negative impacts of climate change. For example, as a signatory to Agenda 21, the Philippines commits to achieve a balanced economic growth with adequate protection of natural resources to cater for the needs of present and future generations.

There is a wide gap between realizing the national interest for forests to produce goods and provide ecosystem services and the local level response of on-site forest management

Despite international support for environmental programs and progressive national forest policies, deforestation and forest degradation persisted and continue. Government loans were used to reforest denuded upland areas and rehabilitate degraded watersheds. Billions were poured to provide alternative livelihoods to upland communities to ease the pressure on forests. However, the country continues to lose its forests, and the majority of the upland population remains below the poverty threshold.

Tenure security as well as transparent and consistent resource use policies are key to sustainable management of public lands. Frequent policy shifts and complicated procedures for obtaining resource use permits have prevented active engagement of local communities in sustainable forest management and driven illegal logging in the Philippines.⁵

⁵ Pulhin, J. M., Dizon, J. T. & Cruz, R. V. O. (2008) Tenure reform and its impacts in the Philippine forest lands. Paper presented at the 12th Biennial Conference of the International Association for the Study of Commons (IASC), 14-18 July 2008, University of Gloucestershire, Cheltenham, UK. http://iasc2008.glos.ac.uk/conference%20papers/papers/P/Pulhin_1233.pdf

BEFORE

AFTER

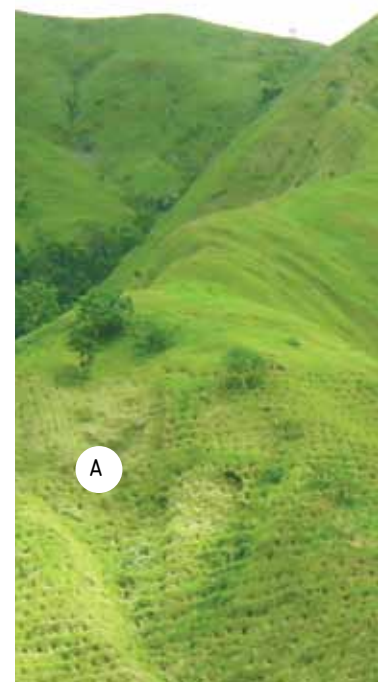


Figure 1. The forestlands of the Municipality of Laua-an, Antique, showing the before (left) and after (right) developments in implementing their enhanced Forest Land Use Plan (FLUP) and of some of MOREFORESTs Enhanced Sustainable Forest Management Technologies to increase local income.

MOREFORESTs creates an enabling environment that improves the governance of public lands within the territorial boundaries of the local governments.

It advocates for a more active role of the local governments, and correspondingly, local level resource management plans are consolidated as they go up the governance levels so that national targets take into consideration the vision and aspirations of the local people.



MOREFORESTs improves forest governance through effective implementation of national policies and programs at the community level where the actions matter. MOREFORESTs creates the enabling environment to achieve improved governance of public lands. Given the multi-faceted function (providing goods and services) of the public lands in the Philippines, resource managers must fully understand the status for which the public land is governed. It provides a framework for clarifying various aspects of governance. It starts by reinforcing the national and local importance of public lands in accordance with the four major uses as prescribed by the Constitution, such as protected areas, mineral lands, forestlands and agricultural lands. MOREFORESTs translates this into manageable portions fit to the local conditions and corresponding to the local governments' territorial jurisdiction. Appropriate national policies governing these pre-identified land uses are already in place.



A
Assisted Natural
Regeneration (ANR) /
enrichment



B
Multi-purpose
tree plantation



C
Multi-storey /
agroforestry
fruit orchard



MOREFORESTs helps to close the gap between the national interest for forests to produce goods and ecosystem services and the on-site management of the forestlands. MOREFORESTs aims to bridge this gap through the judicious and participatory allocation of the public lands into protection and production areas, enabling agencies and institutions for coordinated delivery of support services, empowering on-site managers by providing security of tenure and offering an array of technologies for sustainable forest management and income generation.

MOREFORESTs was jointly developed with partners of the Environment and Rural Development Program. In achieving sustainable natural resource management through the ridge-to-reef planning in the country, MOREFORESTs complements other GIZ-supported knowledge products, namely:

- Sustainable Integrated Management and Planning for Local Government Ecosystems (SIMPLE)
- Sustainable Coastal Resources (SCoRe) for the Philippines
- Local Flood Early Warning Systems (LFEWS)
- Integrated Solid Waste Management Facility with Sanitary Landfill and Resource Recovery Technologies (Eco-Center)
- Rural Economy Advancement through Cash-for-Work for Households (REACH)

MOREFORESTS

Policy and governance setting

Realizing the importance of good governance in forest management, the national government passed laws and regulations designed to promote greater participation of stakeholders in managing forest resources, transparency in management operations and accountability among stakeholders in decision making (**Table 1**). Thus, consistent with the Local Government Code of 1991, DENR-DILG Joint Memorandum Circular Nos. 1998-01 and 2003-01 stipulated co-management of forests and forestlands between the DENR and local governments. The NIPAS Act of 1992 also provided greater participation among a wider range of stakeholders in managing protected areas by mandating the creation of multi-sector protected area management boards, which oversee implementation of activities in each protected area. EO No. 263 (1995) and the Indigenous Peoples Rights Act (IPRA) of 1997 also promoted participation of communities and Indigenous Peoples (IPs) to directly manage forestlands under the Community-Based Forest Management Program and by titling their ancestral domains, respectively.

Logging ban policies and national greening and reforestation programs

Since the 1970s to the most recent in 2011, government officials (President, Department Secretaries, Bureau Directors) have issued logging bans and moratorium policies in the form of executive orders, letters of instruction, memorandum orders / circulars or administrative orders to address continuing deforestation in the country. However, in spite of the logging ban and moratorium issuances, illegal logging and deforestation / forest degradation still persist in many areas of the country.

For logging ban and moratorium policies to be effective, they need to be crafted in a holistic manner, through long-term and sustainable strategies. The DENR and other government agencies alone are unable to protect the forests and enforce the logging ban. The stakeholders within or near the forests should be capacitated, empowered and given incentives to protect and manage these resources sustainably.

Following the issuance of EO 23 on the logging moratorium in natural forests is EO 26, “Declaring an Interdepartmental Convergence Initiative for a National Greening Program”. Various tree planting and greening programs

The DENR and other government agencies alone are unable to protect the forests and enforce logging ban. The stakeholders within or near the forests should be capacitated, empowered and given incentives to protect and manage these resources sustainably.

Table 1. Major forest policies reinforcing the need for the DENR-local governments' improved governance of forests and forestlands, Comprehensive Land Use Plans-ready Forest Land Use Plans in light of emerging challenges

Year	Key relevant policy or framework	Areas of priorities/ action
2011-2016	The Philippine Development Plan	<ul style="list-style-type: none"> Improved conservation, protection and rehabilitation of natural resources. Integrated ecosystem-based management will continue to be adopted as a major strategy for sustainable natural resource management
2011	Executive Order No. 26, National Greening Program	<ul style="list-style-type: none"> Declares an Interdepartmental Convergence Initiative for National Greening Program
2011	National Climate Change Action Plan	<ul style="list-style-type: none"> Includes sustainable management of uplands and the implementation of the Philippine National REDD-Plus Strategy (PNRPS)
2011	Executive Order No. 23	<ul style="list-style-type: none"> Declares a moratorium on the cutting and harvesting of timber in the natural and residual forests Provides for strict implementation compliance and adherence to forestry laws
2011	Republic Act 10121 or the Philippine Disaster Risk Reduction and Management Act	<ul style="list-style-type: none"> Local government units are required to prepare a Local Disaster Risk Reduction and Management Plan and define the hazard risk areas; these have to be considered in the Forest Land Use Plan
2009	Republic Act 9729, Section 13 or the Climate Change Act of 2009	<ul style="list-style-type: none"> Mandating the formulation of the National Climate Change Action Plan. Included in the National Climate Change Action Plan is the Philippine National REDD+ Strategy
2009	Philippine National REDD+ Strategy	<ul style="list-style-type: none"> Advocates for proper land use planning, tenure security in the uplands and empowerment of local communities towards conservation and sustainable management of forest resources
2004	DENR Department Administrative Order 32, Series 2004	<ul style="list-style-type: none"> Revised Guidelines on the Establishment and Management of Community-Based Program in Protected Areas
2003	DENR-DILG Joint Memorandum Circular-01, Series 2003	<ul style="list-style-type: none"> Strengthening and institutionalizing the DENR-DILG-local government partnership on devolved and other forest management functions Call for the preparation of Forest Land Use Plans and integration of the Forest Land Use Plans into Comprehensive Land Use Plans of every municipality and city
1998	DENR-DILG Joint Memorandum Circular-01, Series 1998	<ul style="list-style-type: none"> Manual of Procedures for DENR-DILG-local government partnership on devolved and other forest management functions Call for the preparation of Forest Land Use Plans and integration of the Forest Land Use Plans into Comprehensive Land Use Plans of every municipality and city
1997	Republic Act 8371 or the Indigenous Peoples Rights Act (IPRA)	<ul style="list-style-type: none"> Recognizes, protects and promotes the rights of Indigenous Peoples and paved the way for the individual or communal titling of ancestral forestlands
1996	DENR Department Administrative Order 96-29	<ul style="list-style-type: none"> Provides the Implementing Rules and Regulations of Executive Order 263; paved the way of granting of resource use rights to communities; and allows the transfer of tenure as well as their limited division through such mechanisms as joint venture and contracting
1995	Executive Order No. 263 or the Community-based Forest Management Strategy of 1995	<ul style="list-style-type: none"> Declares Community-based Forest Management as the country's national strategy for sustainable forest management and allows more equitable access of forest resources
1992	Republic Act 7586 or the National Integrated Protected Areas System (NIPAS) Act	<ul style="list-style-type: none"> Seeks to protect and maintain the natural biological diversity of the environment in areas with biologically unique features and to ensure its perpetual existence through comprehensive systems of protection, conservation and management
1991	Republic Act 7160 Local Government Code of 1991	<ul style="list-style-type: none"> Partially devolved some functions of the DENR to the local government units. Devolves central government functions, such as the natural resource management functions Local government units shall share with the national government the responsibility in the management and maintenance of ecological balance within territorial jurisdiction, subject to the provisions of this Code and national policies
1989	DENR Department Administrative Order 123	<ul style="list-style-type: none"> Promotes community participation in the rehabilitation, protection, improvement and management of degraded and productive residual forests, brushlands, virgin forests and marginal lands
1987	Executive Order No. 192	<ul style="list-style-type: none"> Mandated the DENR to conserve, manage, develop, properly use, license and regulate the use of natural resources
1987	Constitution	<ul style="list-style-type: none"> Adopted the Regalian Doctrine Mandated the State to undertake on its own the development and utilization of natural resources or enter into co-production, joint venture or production agreements Enjoins the State to enter into co-production, joint venture or production agreements vis-à-vis natural resource management with empowered communities
1981	Presidential Decree No. 1586	<ul style="list-style-type: none"> Establishes the Environmental Impact Assessment (EIS) System. The law prohibits undertaking / operating an environmentally critical project or any project in environmentally critical areas, without undergoing environmental impact assessment and securing an environmental compliance certificate (ECC)
1975	Presidential Decree No. 705 or the Revised Forestry Code	<ul style="list-style-type: none"> 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

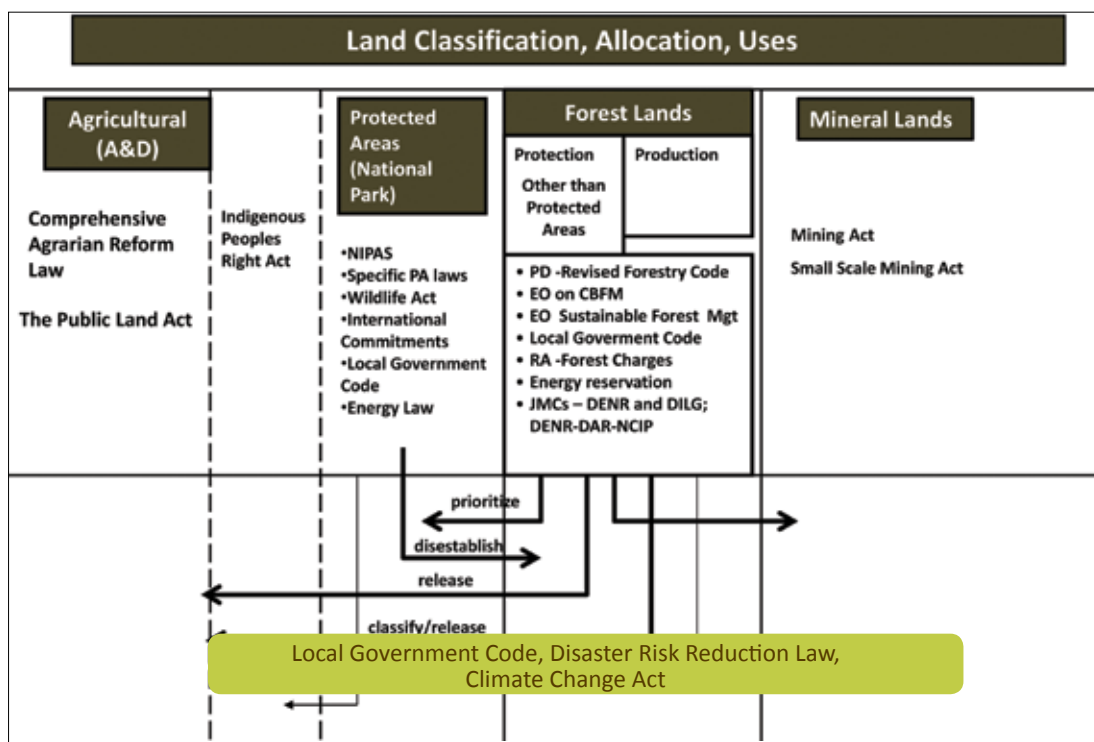
were implemented to address the problems of increasing deforestation and scarcity of timber for industrial and home consumption before the National Greening Program (NGP). Now, the NGP aims to succeed as a long-term strategy to bring back the forests, provide wood for the country and address deforestation and forest degradation. But for that to happen, the right policy framework, incentives and capacities have to be in place.

Insecure land tenure and land use rights influence effective implementation of national laws

The Community-Based Forest Management (CBFM) strategy is implemented through DENR DAO No. 96-29. The CBFM Program provides long-term security of tenure to organized local communities through the issuance of the Community-Based Forest Management Agreement (CBFMA) and other land tenure instruments under the various people-oriented forestry programs that were implemented in the past.

Although tenurial instruments such as CBFMA have gained positive grounds in the past decade, there are still issues that hinder full realization of its goals and objectives, i.e. to give local communities the right to possess and develop forestlands.⁶ Among these are: unstable policies on tenure and resource use; complicated and unclear procedures and limited technical assistance; weak technical capabilities of community-based implementers; and inadequate investments from various sources to develop their areas.⁷

Figure 2.
Governance of
lands of public
domain: The
1987 Philippine
Constitution,
legislated laws
and administrative
issuances
(Source:
Governance of
Lands of
Public Domain.
Guiang, 2012)



⁶ Bacalla, n.d.

⁷ Pulhin, J. M., Dizon, J. T. & Cruz, R. V. O. (2008) Tenure reform and its impacts in the Philippine forest lands. Paper presented at the 12th Biennial Conference of the International Association for the Study of Commons (IASC), 14-18 July 2008, University of Gloucestershire, Cheltenham, UK. http://iasc2008.glos.ac.uk/conference%20papers/papers/P/Pulhin_1233.pdf



Current policies, including forest policies, call for achieving integrated ecosystem-based management and outline plans on how to achieve this with the consideration for emerging challenges

The Philippine Development Plan (2011-2016) defines the integrated ecosystem-based approach as a major strategy for sustainable natural resource management. The DENR-DILG Joint Memorandum Circulars (JMCs) 98-01 (1998) and 2003-01 (2003) call for the preparation of Forest Land Use Plans (FLUP) and stipulate the integration of the FLUP into Comprehensive Land Use Plans (CLUPs) of every city and municipality. The integration of disaster risk reduction and climate change adaptation in local development plans is supported by the National Framework Strategy on Climate Change (2009) and the Philippine Disaster Risk Management Act (2011).

MOREFORESTs supports the continuing devolution of Environment and Natural Resources functions to the local government units, multi-stakeholder participation in managing natural resources, achievement of tenurial security for the uplands and improvement of database and digitization of spatial information for the public lands. It advocates for a harmonized forest policy that is more attuned with the times and helps to realize the paradigm shift envisioned in the post-EDSA Philippine Constitution, the Local Government Code and the CBFM Strategy.

The DENR-DILG Joint Memorandum Circulars (JMCs) 98-01 (1998) and 2003-01 (2003) call for the preparation of Forest Land Use Plans (FLUP) and stipulate the integration of the FLUP into Comprehensive Land Use Plans (CLUPs) of every city and municipality.

MOREFORESTs employs an **enhanced Forest Land Use Planning (FLUP)** process that will result in the proper allocation of the State's public lands into protection and production uses, in accordance with existing policies and guidelines.

With the enhanced FLUP, the “non-negotiables”, which take into consideration both global and national interests on protected areas in minimizing the impacts of climate change and in reducing risks from disasters, are allocated and delineated. Therefore, the enhanced FLUP departs from the existing one by understanding the undeniable relationship between forests and our ability to adapt to the negative impacts of climate change.

The emerging issue of disaster risk reduction from hazards and natural calamities is connected with the integrity of the forest and watershed ecosystem.

Although unsustainable forest management contributes to global greenhouse gas emissions, forests have the unique characteristic of being able to mitigate it by sequestering carbon dioxide from the atmosphere, and therefore, the concept of Reducing Emissions from Deforestation and Forest Degradation (REDD+)⁸ is also a feature in the enhanced FLUP.

Biodiversity conservation is an integral part of the enhanced FLUP. The enhanced FLUP is where biologically important areas are properly identified, delineated and demarcated for protection and conservation. Also, the enhanced FLUP is results-oriented to ensure that the entire process realizes the multi-faceted objectives it aims to address.

How FLUP integration can be practically accomplished is described in another GIZ knowledge product called Sustainable Integrated Management and Planning of Local Government Ecosystems (SIMPLE).

⁸ REDD+ is a topic being discussed internationally as a new cost-effective approach towards forest and climate protection. REDD is multidimensional and comprehensive. It focuses on avoiding further deterioration of forests and emissions of greenhouse gases while generating benefits such as biodiversity conservation and improvement of local livelihoods.

MOREFORESTs

Goals & objectives • Framework's critical processes •
About the MOREFORESTs Framework • Stakeholders' roles • Main costs estimates

MOREFORESTs

Goals and objectives

MOREFORESTs will contribute to the improvement of sustainable management of forests and forestlands in the Philippines or enhanced frame conditions of sustainable forest management to become a reality in the Philippines – for forests and forestlands to be able to sustainably provide goods (productive function) and services (protective and ecological functions).

Every hectare of forests and forestlands is accounted for.

Goal 1

Harmonize major forestry laws and regulations

- Policy frame conditions will encourage multi-stakeholder participation
- Support in the enforcement of the non-negotiables

Goal 2

Create an enabling environment for agencies to effectively carry out their mandates to have more forests

- Harmonize delivery of national programs
- Create venues for proper planning and allocation
- Harmonizing/ establishing clear policies and guidelines
- Capacity development
- Clarifying roles and responsibilities

Goal 3

Strengthen local government units to effectively carry out their Environment and Natural Resources mandate

- Coordinate / broker for investment for protection and production

- Inclusion into the Comprehensive Land Use Plans of Forest Land Use Plan and Comprehensive Development Plan and Annual Investment Plans

- Advocating for creation of municipal and city Environment and Natural Resources Offices (ENROs)

- Link Resource Management Plans to Barangay Development Plans and existing tenurial instruments

Goal 4

Capacitate tenure holders to be effective forestland managers

- Management skills

Goal 5

Forest Land Use Plans and corresponding resource management plans (RMPs) are attuned to emerging challenges

- Integrate Climate Change Adaptation

- Integrate opportunities (REDD+)

- Integrate Disaster Risk Reduction

- Technical skills

MOREFORESTs

Framework's critical processes



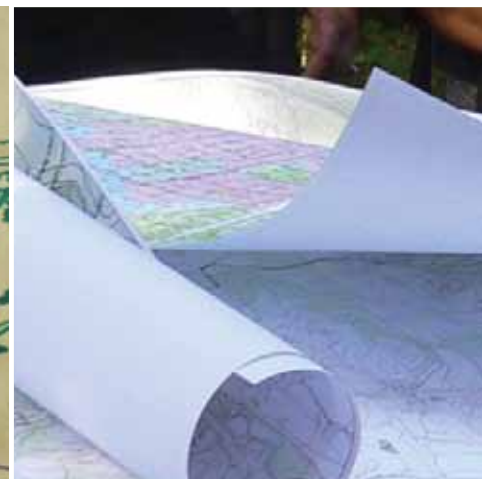
Sustainable forest management

Capacity Building

Local governments and communities must be fully capacitated to effectively perform the resource management function. MOREFORESTs sees the mandated agencies charged with both resource management and local governance (e.g. DENR, DAR, DA and DILG) to provide these capacity-building requirements to the local governments and communities.

Planning to clarify governance

Land use plans (Enhanced FLUP) and corresponding resource management plans (RMPs) are a must. These plans should be the major bases for implementing programs of both protective and economic importance.





Resource use guidelines and permit procedures (resource use permits, transport licenses) conducive to sustainable utilization of forest resources should facilitate the establishment of forest-based value chains for economically viable land management, creating basis for employment, livelihoods and rural development.

Co-management

Co-management should be the appropriate strategy for managing forest and forestland resources within the territorial boundaries of the local governments. Local governments must also play an active supervisory role (including monitoring) of those previously issued tenure within their territorial boundaries.

Issuance of tenurial instruments

Tenure must be issued to the open access areas to ensure clear user rights as a basis for sustainable land management.



MOREFORESTs

About the Framework

The MOREFORESTs Framework (**Figure 3**, p. 26) builds on the logical sequence of its critical processes: capacity-building, Forest Land Use Plan (FLUP), Co-Management Agreement, establishment of clear tenure and sustainable resources management.



National: Policy and technical advocacy

MOREFORESTs is anchored on the active support and involvement of DENR's regional, provincial and community level offices in the policy and technical advocacy.

MOREFORESTs strongly supports the basic functions of forest and forestlands (public lands). It is a participatory and holistic approach to the governance of public lands. It builds on the strengths of various national agencies and local institutions charged with the regulatory and developmental functions through the combined implementation of innovative co-management strategies and enhanced sustainable forest management technologies.

Regional, provincial and municipal governments levels: Joint planning and management

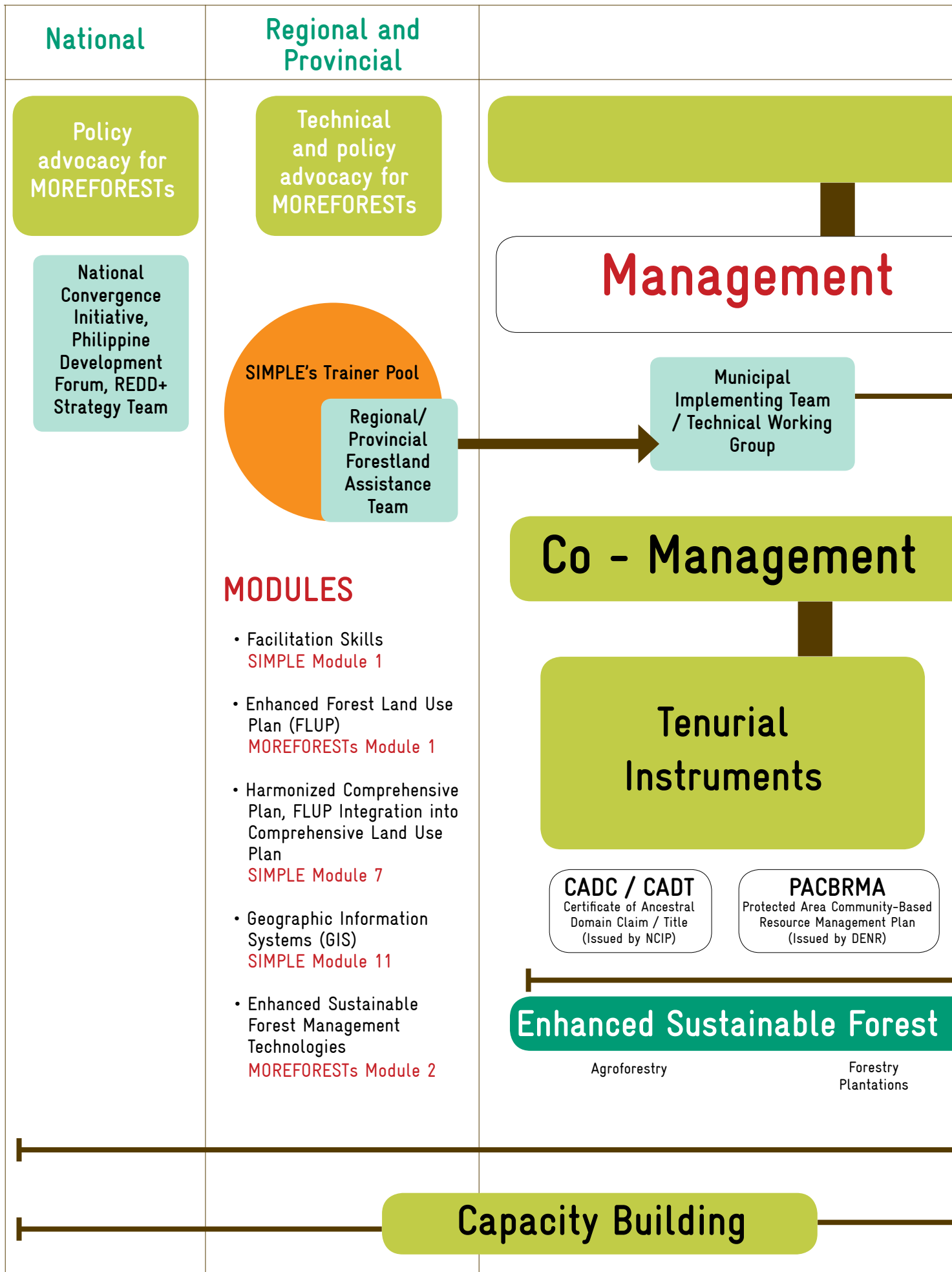
Experience shows that successful implementation of national policies greatly depends on the support from the regional, provincial and community level offices of mandated agencies like DENR.

The establishment of the multi-level Forest Land Use Plan (FLUP) Technical Assistance Teams involves:

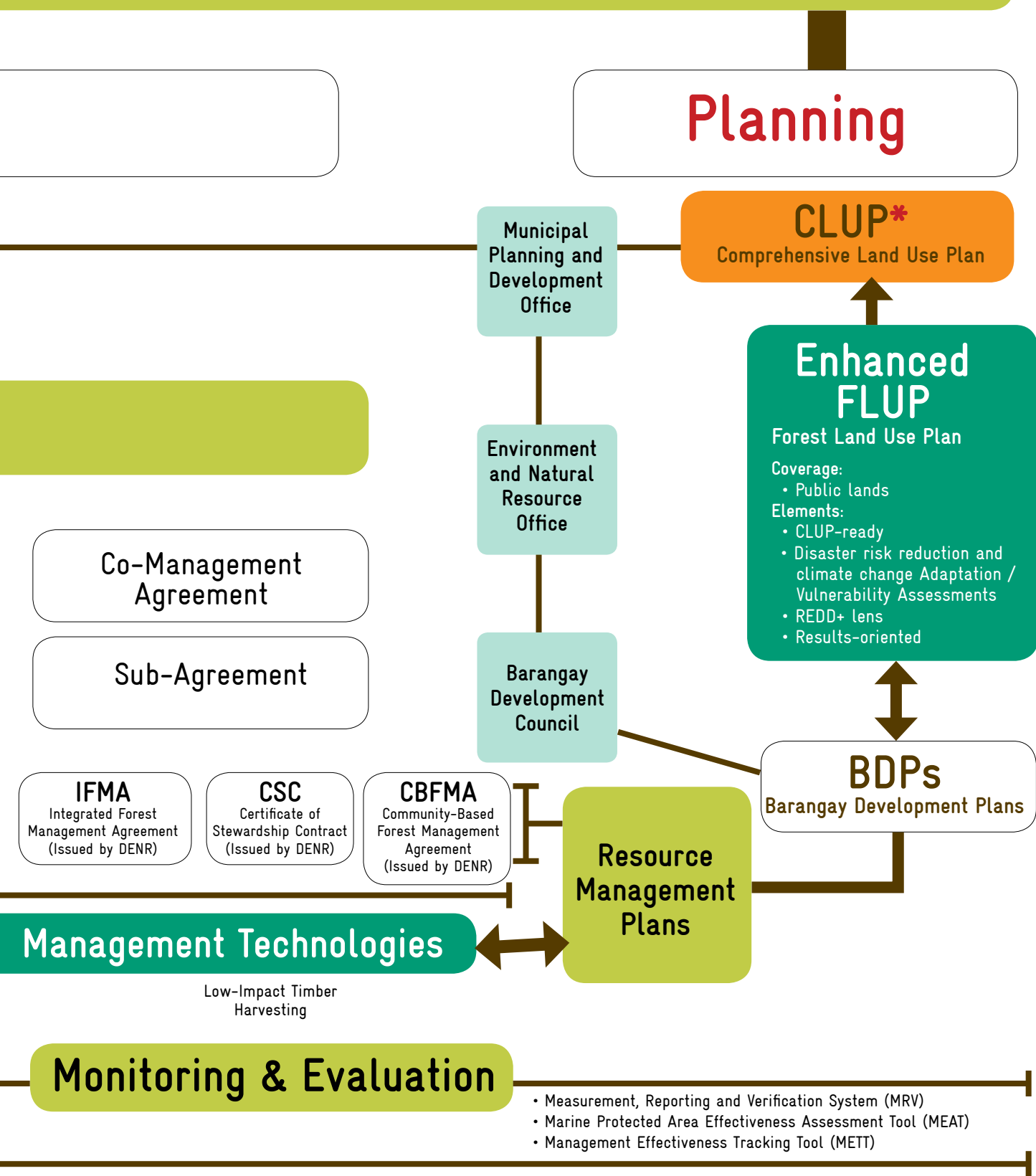
- **Establishment of a Regional Forestland Assistance Team (RFAT)** composed of DENR staff from regional and provincial members and a DILG representative. Both regional offices provide policy and technical support and guidance to the local governments in the forestland governance. When available, Provincial Forestland Assistance Team (PFAT) can be used in FLUP technical assistance supported by RFAT.
- **Linking of the RFAT with SIMPLE's Trainer Pool**
The FLUP and Resource Management Plans need to be in harmony and conformity with the Comprehensive Land Use Plan of the local government units. To ensure this, RFAT links strongly with the SIMPLE's Trainers Pool. The MOREFORESTs modules are incorporated with the training modules of SIMPLE on land use planning and management.
- **Creation of the Environment and Natural Resources Office (ENRO) at the provincial and local government levels**
Provincial and municipal / city ENROs serve as the focal office for the MOREFORESTs application. MOREFORESTs work directly with the Municipal Implementing Teams (MIT) - composed of municipal government's technical personnel and organized for the purpose of formulating and updating their Comprehensive Land Use Plan - that shall have both management and implementation roles in the MOREFORESTs application. MIT will be supported and guided by the fully trained RFAT in the formulation of forest land use plans and the corresponding resource management plans.
- **Capacity building modules**
The RFAT utilizes the MOREFORESTs' two modules: the enhanced FLUP and the Enhanced Sustainable Forest Management Technologies and SIMPLE's modules related to facilitation skills, Geographic Information System and FLUP integration into the Comprehensive Land Use Plan.



The MOREFORESTs Framework



On-site governance of public lands



* Utilizing the SIMPLE approach



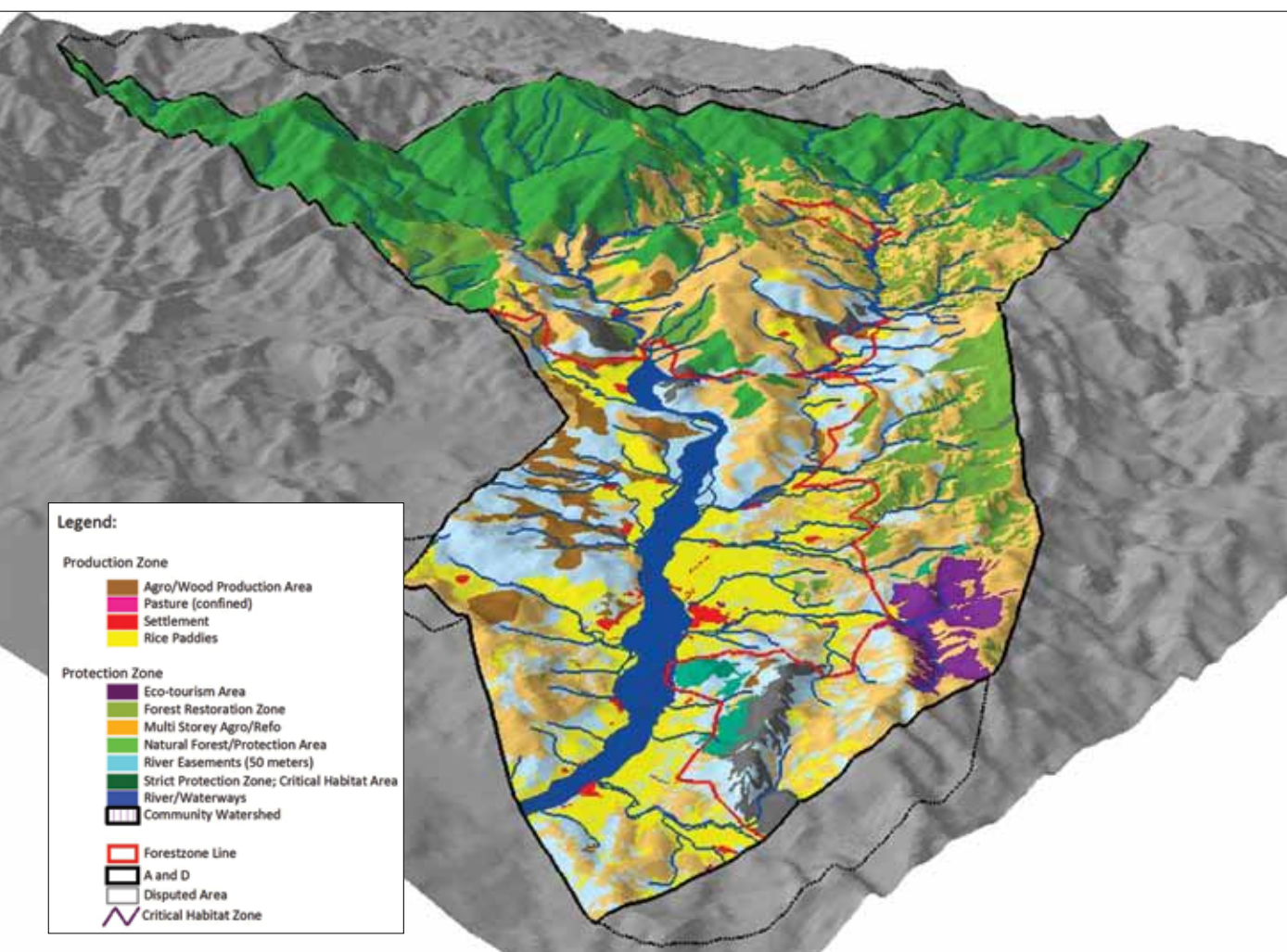
Planning

The MOREFORESTs' **enhanced FLUP Module** serves as the guide in FLUP preparation. The innovative features of the Enhanced FLUP Guidelines are the following:

A watershed-based approach that is CLUP-ready

This process is anchored on the “Integrated Ecosystems Management (IEM)” approach, now commonly known as Ridge-to-Reef approach. It imbibes a number of established elements such as sustainable forest management, vulnerability assessment for determining climate change adaptation measures, biodiversity conservation and protection of Indigenous Peoples’ rights.

It is ideal to link the FLUP analysis with the CLUP process, because the data considered in the situational analysis cover the entire local government’s landscape including A&D. This is especially crucial for the conservation of remaining natural forest within the Alienable and Disposable areas as these areas have critical function in providing environmental and protective services to the society that should also be considered as public goods.



Agreement on necessary “non-negotiable” areas and appropriate allocation for unallocated forestlands

The watershed-based analysis of the current biophysical and socio-economic situation is then compared to the existing policies regulating the use of the lands under public domain. The situational analysis process leads to agreement on necessary development controls to support the function of forestland as a public good.

The development controls or “non-negotiables” are based on existing laws and policies, and guide various forestlands managers (especially the tenure holders) to refrain from development that undermines the value of the forestland in water production, provision of ecological services and conservation of biodiversity. These established “rules of the game” agreed upon by all stakeholders also help the local governments and DENR later to monitor and guide FLUP implementation. Likewise, FLUP provides the platform to discuss and propose appropriate allocations for the unallocated forestlands that are not under existing tenure or other allocation instruments.

Furthermore, FLUP paves the way for neighboring municipalities to complement their plans towards a common objective, such as the establishment of critical habitats (**Annex 1: References on Critical Habitats**). Through enhanced FLUP, open access areas will be effectively managed through issuance of more appropriate tenurial instruments that provide investment security.

MOREFORESTs requires FLUP to be prepared as the basis for implementing national agency-led programs and projects (National Greening Program, Agribusiness areas of the National Convergence Initiative, etc.)

The FLUP and Resource Management Plans need to be in harmony and conformity with the Comprehensive Land Use Plan (CLUP) of the local government units to allow the integrated, coherent and sustainable management of both public and private lands under the local government's political jurisdiction, following the ridge-to-reef approach.

One of the innovative features of the MOREFORESTs is the integration of emerging international and national policies (e.g. biodiversity conservation, the National Greening Program, Indigenous Peoples Rights Act, among others) and opportunities such as disaster risk reduction and climate change adaption and REDD+ into the FLUP and ultimately into the corresponding Resource Management Plans (RMP) (Figures 4 and 5).

"The timberland is a large area covering more than 50% of municipal area, consisting mainly of brushlands and grassland that can be made more productive. It is our mission to educate, empower the Lauan-ons in managing their ecosystems and improve delivery of services as well as protect the forest and sustain production of goods and services."

Aser S. Baladjay, Municipal Mayor, Lauen, Antique Province

Figure 4. The current (left) and the proposed land use maps (right) of the Municipality of Lauen, Antique

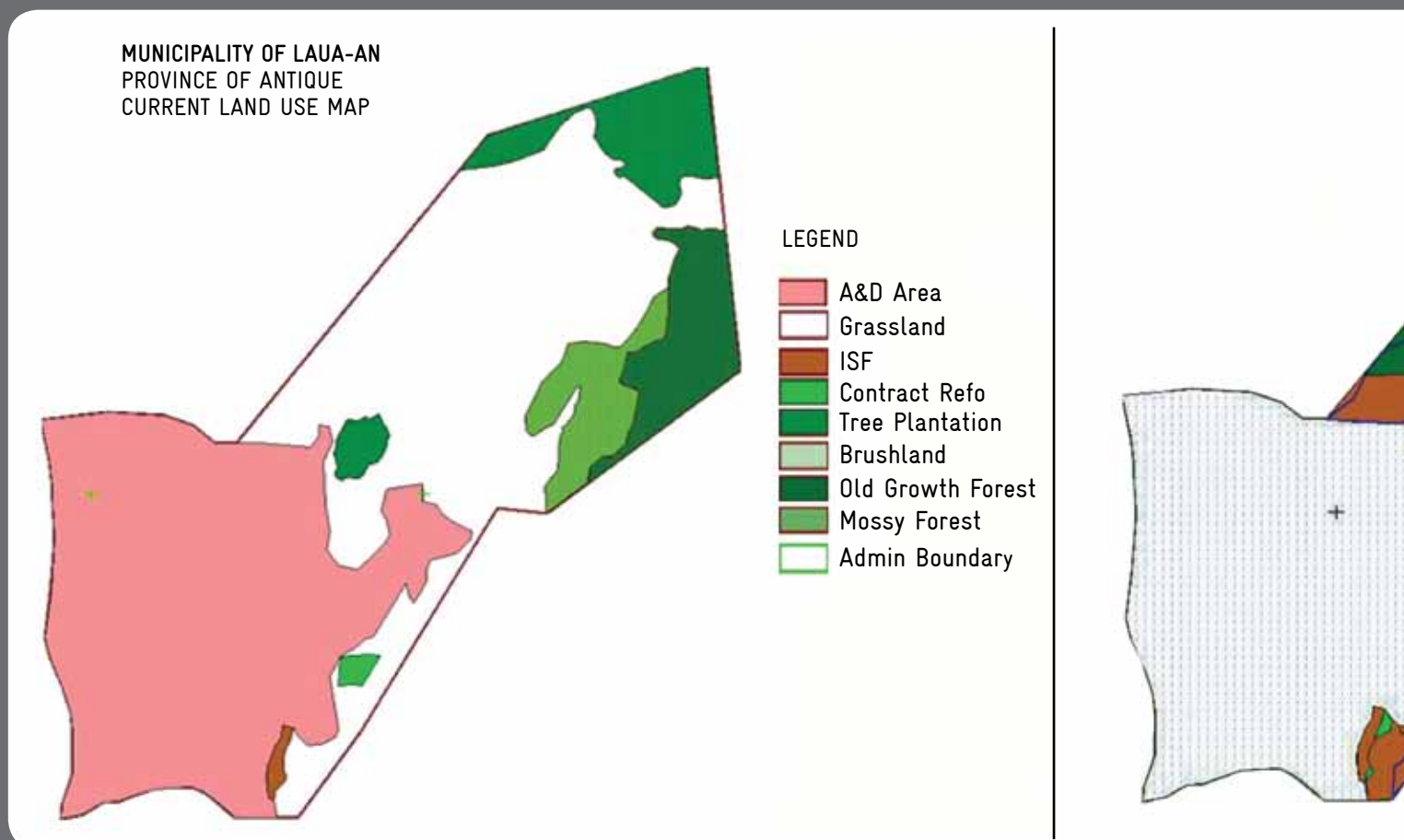
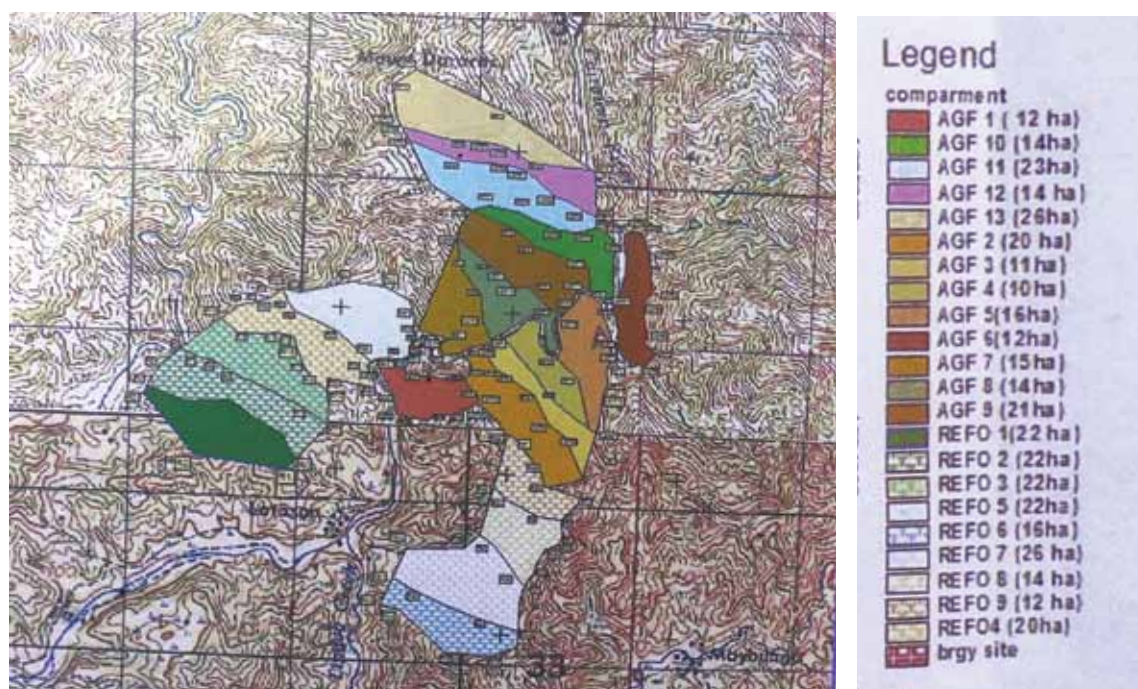
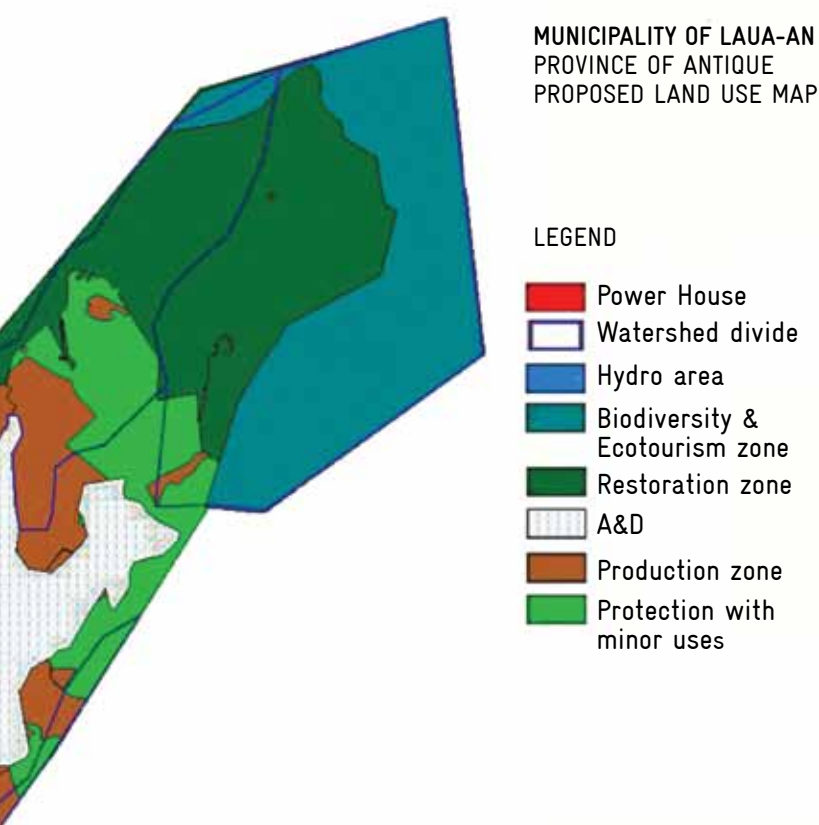


Figure 5.
A section of the Forest Land Use Plan of the Municipality of Sebaste, Antique, with Agroforestry and Reforestation compartments



QUICK FACTS ABOUT LAUA-AN:



- Laua-an is a 4th Class Municipality.
- Their FLUP was prepared in seven months.
- The Municipal Government created the Municipal Environment and Natural Resources Office. Mr. Edward Q. Pon-an is the only MENRO (not as designate) in Antique Province.
- The MENRO budget (PhP164,000) is from the general fund, broken down into:
 - Personnel (PhP104,000)
 - Capital outlay (PhP20,000)
 - Travel allowance (PhP20,000)
 - Supply (PhP20,000)
- Additional fund of PhP2,185,000 (2012 budget) secured, out of the 20% Municipal Development Fund and approved by the Municipal Development Council through an aggressive resource mobilization. This amount is earmarked for the following site management activities:
 - Forest management – PhP1,300,000
 - Abaca – PhP300,000
 - Environmental Protection – PhP300,000
 - Solid Waste Management – PhP285,000
- Draft Municipal Environment Code is already prepared and currently being reviewed.

Management

MOREFORESTs advocates adoption of a co-management strategy to achieve its desired outcomes. It focuses on the actual implementation of reforestation and agroforestry projects in a holistic approach from establishment to utilization.

MOREFORESTs will be applied under the co-management setup where one of the co-managers must be open to relinquish its powers and the readiness of the other to accept responsibility. It is therefore imperative not only that the Municipal Implementing Teams or the Environment and Natural Resources Officers of local governments are capacitated to fulfill their role in the forestlands governance, but also that there is an effective mechanism in place for monitoring and evaluation.

MOREFOREST supports the Sustainable Forest Management policy implementation

It upholds the decision of the national government to share the responsibility of allocating, development and managing natural resources and in the duty of sustainable management of public lands. In cases where there is a high likelihood of both DENR and local governments to forge a Co-management Agreement, MOREFORESTs could be applied.

Co-Management Agreement (CMA)

As envisioned in the Local Government Code of 1991, the entire political jurisdiction is placed under the governance of the local governments.

Co-management agreement is most appropriate to open access public lands

The DENR and the local government sign a Co-Management Agreement for specific untenured area of the forestland and institutionalize joint management and shared decision-making. One of the features of CMA is the establishment of a Steering Committee, which serves as a joint decision-making body in the implementation of the CMA.

Another feature of the CMA is the **issuance of sub-management agreements under the CMA**. “Individual Property Rights” (common term to denote tenurial status for utilization and development of the forestlands by individual households or families) should be issued (wherever appropriate and applicable) to legitimize current and prospective resources managers. However, tenure holders must be assisted and capacitated in resource management planning, implementation, management, and monitoring & evaluation. Both DENR and local governments should ensure that the tenure holders abide by the rules.

The FLUP should be prepared before a CMA can be signed. This is to ensure that management practices to be employed are in accordance with the defined / appropriate land uses and management prescriptions to be followed by the sub-management agreement applicants. The conditions for the issuance of sub-management agreements are stipulated in the local ordinance drafted by the Steering Committee and approved by the legislative body of the municipal government. The ordinance will solicit the roles and responsibilities of the co-management partners including the sub-management agreement holder, DENR and local government. The sub-management agreements endorsed by the DENR can be used later as a proof to process the utilization permits for sustainable harvesting.





Above: Some of the site management activities of YISEDA – a People’s Organization living in Sitio Canlugoc, Brgy. Lunas, Maasin City, Southern Leyte

Resource Management Plan

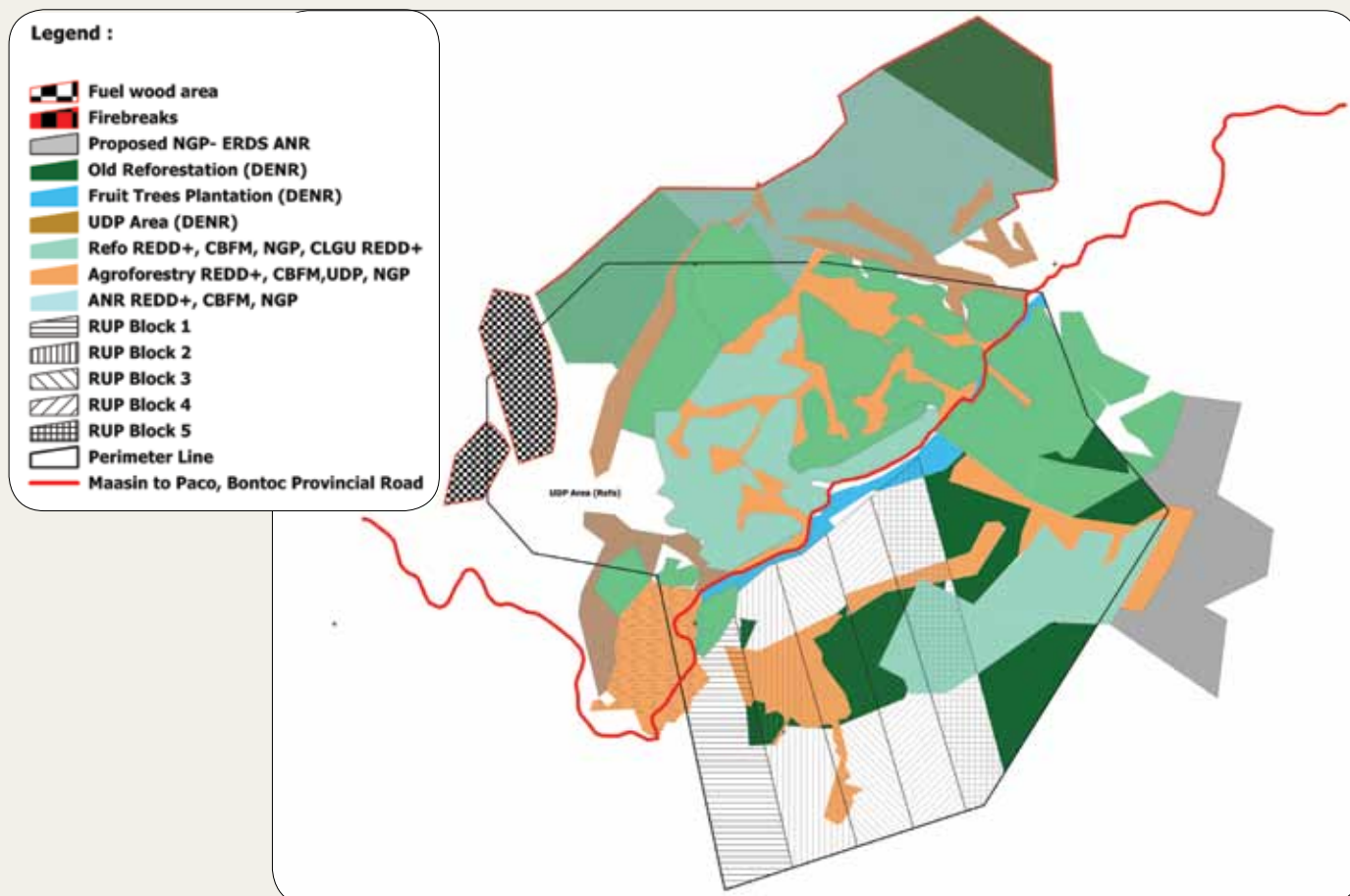
Ideally, Resource Management Plans (RMPs) should be prepared directly after the FLUP process to ensure continuity. The tenure or allocation holder prepares the RMP, which defines the proposed land use and specific development interventions to be undertaken in a particular area. The different types of RMPs are defined in existing policies. These include plans such as Community Resource Management Framework of the Community-Based Forest Management Agreement holder, Comprehensive Development and Management Plan of the Integrated Forest Management Agreement holder, Protected Area Community-Based Resource Management Plan under the National Integrated Protected Areas System Act, etc.

As governing body in a co-managed forestland, the DENR and Local Government can support tenure holders to formulate these plans and, within the process, agree on the support to be provided to tenure / allocation holders during implementation. Both institutions also play an important role in monitoring and evaluation of the outcomes of the implementation plans.

Young Innovator for Social and Environmental Development Association

- 44 (9 females / 35 males) founding members
- Organized in August 1999
- Registered in March 2000
- Community-Based Management Area awarded in November 2000
- 549 hectares- Total CBFMA Area

Figure 6. Land Use Map of YISEDA's Community-Based Forest Management Area



"From 2001 to 2007, even with a drafted Community Resource Management Framework (CRFM), we had no clear programs and projects. In late 2007, we were able to update our CRMF with the help of trainings and learning and it got affirmed by DENR. From then on, we began to move on with clear directions on where we want to go and what we want to achieve".

Florentino Saludo, YISEDA President

Enhanced Sustainable Forest Management Technologies

MOREFORESTs promotes sustainable forest management technologies. These technologies, whenever deemed appropriate, can be applied in designated production areas. Innovative Sustainable Forest Management Technologies provide the tenure holders / resources managers economic benefits as rewards. These technologies are: Agroforestry, Low-Impact Community-Based Timber Harvesting, REDD+, etc. They should be supported by easy-to-understand resource use guidelines and transparent, unbureaucratic processes for obtaining utilization permits by tenure holders / resource managers. The details of these technologies are discussed further in another section of this publication.



Monitoring and evaluation

MOREFORESTs adopts the results-based management system that measures achievements by clearly defined agreed indicators. It is therefore desirable that all plans must contain clear indicators for measuring outputs and outcomes. A detailed monitoring and evaluation plan must be an important section in the FLUP / RMP. The monitoring and evaluation plan will contain what information to collect; information source / documents; and how, when and who will collect the data and information.

Thus, the monitoring and evaluation function should be regarded as a vital task of the MIT/ENROs. Regular and periodic data gathering activities should take place, and this is a shared task between local government and DENR. Monitoring in the implementation of FLUPs and RMPs should then be regarded as a shared function of both the local government staff and DENR, although the latter may still maintain its supervisory role over the former.

MOREFORESTs also advocates the use of monitoring tools for tracking effectiveness in a certain land use. The combined Management Effectiveness Tracking Tool and the MPA Effectiveness Assessment Tool can be used to determine the management effectiveness of established protected areas. On the other hand, for REDD+, the Measurement, Reporting and Verification System can be used.

MOREFORESTs Stakeholders' roles

Table 2. Key stakeholders of MOREFORESTs

	Responsible	Role(s)
National	DENR	<ul style="list-style-type: none"> Lead agency responsible for the conservation, management, development and proper use of the country's natural resources Harmonization of major forestry laws and regulations Creates enabling environment for agencies to effectively carry out their mandates to have more forests Strengthens local government units to effectively carry out their Environment and Natural Resources mandate Co-Management Agreement of forests and forestlands with local governments Responsible for the creation of trained technical assistance team linked with SIMPLE Trainers Pool to effectively guide local governments in Forest Land Use Plan (FLUP) preparation and implementation Issues user rights and tenure instruments
	NCIP	<ul style="list-style-type: none"> To serve as the primary government agency through which ICCs/IPs can seek government assistance and as the medium, through which such assistance may be extended To formulate and implement policies, plans, programs and projects for the economic, social and cultural development of the ICCs/IPs and to monitor the implementation thereof To issue appropriate certification as a pre-condition to the grant of permit, lease, grant or any other similar authority for the disposition, utilization, management and appropriation by any private individual, corporate entity or any government agency, corporation or subdivision thereof on any part or portion of the ancestral domain taking into consideration the consensus approval of the ICCs/IPs concerned
	DILG	<ul style="list-style-type: none"> Participates in provision of capacity building to fully capacitate local governments on effective resource management; also part of the technical assistance team whenever needed
Regional	Regional Forestland Assistance Team (RFAT)	<ul style="list-style-type: none"> Capacitates Municipal Implementing Team / Technical Working Group in the FLUP preparation and implementation, Co-Management Agreements, resource management planning, sustainable forest management technologies and monitoring and evaluation; RFAT also provides MOREFORESTs' modular trainings to Municipal Implementing Team / Municipal Environment and Natural Resource Officer / local DENR Ensures FLUPs and corresponding Resource Management Plans are attuned to emerging challenges (integration of climate change adaptation / disaster risk reduction) and opportunities (REDD+)
Province	Provincial Environment and Natural Resources (Provincial ENRO)	<ul style="list-style-type: none"> Specifically tasked to facilitate integration of FLUP measures into regular plans of the local government upon FLUP adoption Engages Municipal Planning and Development Coordinator (MPDC) to integrate FLUP in the municipality and strengthen capacities of the MPDCs and other municipal-level institutions to tie the FLUP implementation in the regular activities
	Provincial Forestland Assistance Team (PFAT)	<ul style="list-style-type: none"> Capacitates MIT / TWG in the FLUP preparation and implementation, co-management agreements, resource management planning, sustainable forest management technologies and monitoring and evaluation PFAT also provides MOREFORESTs' modular trainings with RFAT
Municipality or City	Local Chief Executive / Mayor	<ul style="list-style-type: none"> Responsible in the management and maintenance of ecological balance within their territorial jurisdiction Co-Management Agreement with DENR
	Municipal Environment and Resource Office (Municipal ENRO)	<ul style="list-style-type: none"> Engages the Barangay Development Councils to integrate FLUP in the Barangay Development Plans and strengthen capacities of the Barangay Development Councils and other barangay-level institutions to tie the FLUP implementation in the regular activities Capacitate tenure holders to be effective forestland managers Coordinates monitoring of FLUP implementation
	Municipal Implementing Team (MIT)	<ul style="list-style-type: none"> Creation of action plan for the FLUP preparation with an adequate budget supported by the local government Data gathering, mapping and validation Assessment of the biophysical condition and emerging challenges for FLUP implementation Provides day-to-day technical assistance to tenure holders in preparation and implementation of Resource Management Plans (RMPs) and integration of sustainable forest management technologies
Tenure Holder		<ul style="list-style-type: none"> Prepares, aligns and updates Resource Management Plans, which clearly define the proposed land use and specific development interventions Abides / complements the protection / production areas identified within the FLUP in their resource management plans
Private partner in Public-Private Partnership		<ul style="list-style-type: none"> Source of high-quality seedling (agricultural inputs for farmers such as coffee or cacao) Private partner assigns experts to provide technical extension to farmers (agricultural extension for upland farmers) Buys raw products (i.e. green coffee beans) from farmers on current world market price (secured market access for upland farmers)
Public partner in Public-Private Partnership		<ul style="list-style-type: none"> Support in seedling purchase Support in establishment of plantation Support in maintenance and harvesting

Main Costs Estimates

Table 3. Estimates of the main cost items of MOREFORESTs

Activity	Cost items (2011)	Cost (PhP)
Enhanced Forest Land Use Plan		
Technical assistance provided by GIZ	<ul style="list-style-type: none"> MOREFORESTs training modules on the Enhanced FLUP and Enhanced Sustainable Forest Management Technologies SIMPLE Training Manuals and Toolkit 	Free of charge
Preparation of Regional / Provincial Forestland Assistance Teams (R / PFAT) and linking with SIMPLE's Trainers Pool	Per Province <ul style="list-style-type: none"> Capacity building Travel allowances Forest Land Use Plan Geographical Information System (GIS) on provincial level including operator 	1,600,00
Enhanced Forest Land Use Plan process and guidelines, implementing ordinances	Per Municipality / City <ul style="list-style-type: none"> FLUP preparation and implementation, extension and monitoring support, training 	400,000
Co-management approach	Per Municipality / City <ul style="list-style-type: none"> Land use sub-agreement area verification and mapping 	60,000 or 200 per hectare
Resource management plan	Per Barangay <ul style="list-style-type: none"> Consultations, community mapping, plan preparation 	40,000
Enhanced Sustainable Forest Management Technologies		
Agroforest and forest establishment ¹	Per hectare	Between 12,000 and 25,000
Plantation maintenance ¹	Per hectare <ul style="list-style-type: none"> Labor, travel, forest protection 	Between 3,600 (agroforestry) and 11,000 (reforestation)
Monitoring and evaluation	Per hectare	200
Low-Impact Timber Harvesting	<ul style="list-style-type: none"> Complete set of harvesting equipment and locally manufactured bandsaw 	570,000 ²
Public-Private Partnerships	<ul style="list-style-type: none"> Extension support Training Marketing and processing Facilities 	Between 50,000 (primary production) and 500,000 (advanced value adding) per farmer group or People's Organization

NOTE:

Total costs varies, depending on cost items.

¹ Refer to Annex 4 for Detailed Costing of Agroforestry Models

² Investment recovered by gains. Refer to the Low-Impact Timber Harvesting section in this publication, under "Efficient and value-adding timber processing techniques" and "Marketing of lumber products".

Enhanced FLUP

Overview of Processes




MOREFORESTs Enhanced FLUP

Overview of Processes

Enhanced FLUP looks at the process of joint management of public lands as a continuum reaching from the national-level policies to regional and provincial levels, to municipal and city local governments and eventually to forestland occupants. It acknowledges the importance of all these levels and aims to build trust, willingness and commitment to collaborate. The FLUP does not stop in the formulation of the plan but continues to the implementation and includes, as an integral part, monitoring and evaluation, to revisit and improve strategies and measures. The Enhanced FLUP process strengthens the role of mandated government agencies and institutions to fulfill their role as service providers for tenure holders or allocation managers and eventually enable tenure holders, with the support from the government, to bring the forestlands under sustainable management.






Preparatory activities

-  Establish Regional / Provincial MOREFORESTs Assisting Teams and linking with SIMPLE's Trainers Pool for capacity building
-  FLUP training and orientation for local government unit-Municipal Implementing Teams
-  Agree on Action Plan for the MOREFORESTs application



Data gathering, mapping and validation

-  Secondary data gathering and preparation of initial thematic maps including existing tenurial instruments and corresponding management plans
-  Updating and validation of secondary data / and gathering of primary data
-  Prepare and finalize thematic maps and socio-economic profiles

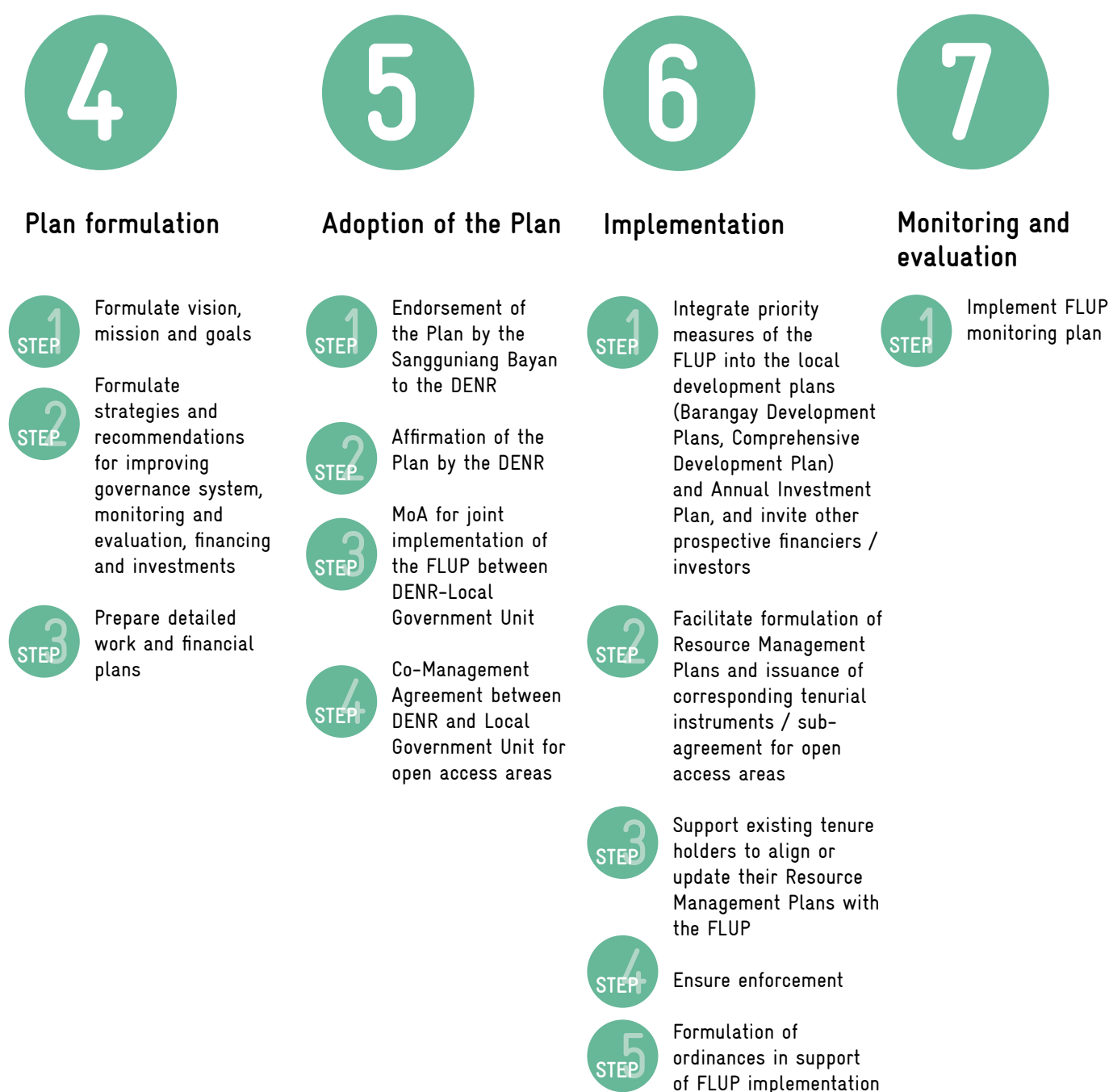


Situational analysis

-  Biophysical assessment including disaster, climate change and REDD+ potential
-  Socio-economic demographic and institutional assessment
-  Define protection and production areas, including critical areas for biodiversity conservation
-  Propose appropriate tenurial instrument for open access areas

For the detailed description of each of the processes below, refer to **Annex 2: Enhanced FLUP Processes**.

The diagram below shows the processes of the Enhanced FLUP. It is adopted with modification from the summary of the *“Draft Guidelines in the Formulation of Forest Land Use Plan for Local Government Units in the Philippines”* and the DENR Forest Management Bureau Technical Bulletin No. 2 on Forest Land Use Planning (**Annex 3**).



Enhanced Sustainable Forest Management Technologies

Overview of Phases

MOREFORESTs

Enhanced Sustainable Forest Management Technologies

Overview of Phases

Utilization of timber resources and improved agroforestry measures increases income of forestland communities. Both measures require a holistic approach, starting with the establishment of agroforestry and forest plantation.

Maintenance and care of forest and agroforest plantation have to be secured before it can be utilized. Harvesting also requires the legal framework, knowledge on proper technologies as well as a secured access to markets. A holistic approach foresees to provide assistance in all these phases (Figure 7).

Figure 7. The three phases and respective processes of MOREFORESTs' Enhanced Sustainable Forest Management Technologies



Establishment of Agroforestry and forest plantation



Maintenance



Utilization / income generation



Open access areas

- Forest Land Use Plan-Co-Management
- Integrated Resource Management Plan
- Issuance of tenure rights / sub-agreements
- Project proposal preparation
- Project orientation
- Nursery establishment and / or seedling purchase

Tenured area (CBFM)

- Community-Based Forest Management Agreement between People's Organization and DENR
- Community Resource Management Framework formulation and five-year workplan
- Project proposal preparation
- Project orientation
- Nursery establishment and / or seedling purchase

Reforestation / Afforestation Implementing Guidelines

- Plantation establishment and development
- Maintenance and care of plantation
- Continuation of project implementation by People's Organization and local government / closure of Financial Agreement
- Maintenance of forest plantation

Low-Impact Timber Harvesting

- Resource Utilization Permit (RUP) plan preparation and approval
 - Data gathering
 - Timber assessment and inventory (timber yield projection)
 - Application and issuance of RUP
- Information dissemination to all stakeholders
- Technical training on low-impact harvesting
- Actual timber harvesting
- Lumber processing and value adding
- Marketing

Monitoring & evaluation

Agroforestry Public-Private Partnership (PPP)

Private partner / financier / investor

Public partner / financier / investor

- Partner identification, and consultation and negotiation feasibility project assessment

Memorandum of Agreement

- Private partner assigns experts to provide technical advices to farmers (agricultural extension)

- Access/ source of high-quality seedling (coffee / cacao)

- Seedling purchase

- Support in project implementation

- Monitoring

- Maintenance

- Provide technical training for farmers / local governments (study trips)

- Buys commodity from farmers on current world market price (secured market access)

- Harvesting and marketing of coffee



Reforestation and Agroforestry

Various studies have shown that upland farming provides very low income to the upland population. The results have often shown that reasons are manifold such as inefficient practices, which lead to low yield levels, the marginal application of inputs because of missing access to extension service and financial resources, or insufficient access to markets.

Besides economic benefits for upland farmers, sustainable managed agroforestry systems also provide ecological benefits, which include improved water storage and purification capacity, biodiversity conservation, carbon storage as well as increased soil fertility and prevention of soil loss. These ecological benefits provide in turn again also economic benefits for the whole watershed, including the downstream part of the watershed.

1 PHASE

Establishment of agroforestry and forest plantation

Phase 1 concentrates on assisting tenure holders' capacity to plan for and manage reforestation and agroforestry projects through their updated Resource Management Plans aligned with the FLUP. The establishment of reforestation and agroforestry sites has six steps:

- STEP 1** **Conduct capacity-building activities** such as orientations and trainings to strengthen project implementation and monitoring and evaluation skills.
- STEP 2** **Formulate Resource Management Plans** and its approval
- STEP 3** **Identify priority projects** for the rehabilitation of degraded watershed and forestlands through reforestation and agroforestry projects.
- STEP 4** **Preparation of a project proposal for chosen reforestation model.** For technical details, monitoring and subsidy payment criteria guidelines, refer to **Annex 4: Detailed costing of Agroforestry and Plantation Models** and **Annex 5: Reforestation Monitoring Guidelines.**
- STEP 5** **Tap external fund sources** from financiers / investors both international and local for plantation establishment.
- STEP 6** **Proper selection of planting sites, appropriate design and planting distances,** the objectives and purposes of the model (**Figure 8**), scheme of operations and cost calculations for labor and material.

Figure 8. The five different types of reforestation models technologies

Multi-purpose
tree plantation



Assisted Natural
Regeneration (ANR)/
enrichment



Rattan
enrichment



Mangrove
rehabilitation



Multi-storey/
agroforestry
fruit orchard





PHASE 2

Plantation maintenance

On maintenance, the tenure holder and local government unit conduct regular weeding and clearing, and application of fertilizers if necessary to planted seedlings on a quarterly basis during the 1st-3rd year period to ensure high survival rate of the plantation. In case of external funding, this may be the basis for the monitoring and evaluation team to make recommendations whether succeeding payments can be made or not.

Monitoring and evaluation

On monitoring of projects, MOREFORESTs' **Reforestation Monitoring Guidelines (Annex 5)** prescribes the step-by-step procedure to be followed by the monitoring and evaluation (M&E) team.

The DENR, with the local government and financier / investor participation (optional), is the lead agency assigned to conduct progress monitoring of projects implemented. Monitoring shall be done for both financial and physical accomplishments on the ground. After that period and the end of possible external funding, the tenure holder is expected to manage with their own means.

The establishment phase for the recommended reforestation models covers 2- to 4-year period.



The background of the entire page is a close-up, high-resolution photograph of dark brown, roasted coffee beans. The beans are piled together, showing their characteristic oval shape and the deep crease down the center of each bean. The lighting is warm, highlighting the texture and sheen of the coffee. In the upper left quadrant, there is a light green circular graphic containing the number '3' in a large, bold, brown font, with the word 'PHASE' in a smaller, white, sans-serif font to its left.

PHASE 3

Income generation from agroforestry projects

Upland farming in forestland is often characterized by low yield level and minimal returns. Main problems are the limited access to markets, knowledge gaps in successfully managing farmland, lack of extension service provided and the limited access to inputs. A Public-Private Partnership approach could help to overcome these bottlenecks. Farmers can profit from better market integration, training provided by the private partner or the provision of inputs such as high-quality seedlings or fertilizer.

Income generation from Public-Private Partnership in the agroforestry sector

Examples of a successful implemented PPP provide GIZ experiences on coffee, cacao and coconut where People's Organizations and upland farmers have been successfully linked and integrated into the agricultural value chain of private partners. For example, the PPP for the production of coffee, and harvesting and marketing of coffee is a scheme by which the People's Organizations and local governments shall have the competitive advantage of ensuring that the coffee beans they produced are assured with market when harvesting comes. The private partner is willing to pay based on world market price. The PPP, through a Memorandum of Agreement (MOA) between the partners, clearly define the roles of private and public partners in every step from pre-development to post-harvesting, processing and marketing of the produce. Sustainable agroforestry systems have to include high profitable cropping solutions to increase smallholders' income, reduce resilience to climate change and prevent the negative impact of externalities in the whole watershed, which results from unsustainable land cultivation practices on individual farms in the uplands.

It is estimated that from one hectare of agroforestry, a farmer can achieve a sustainable income between 30,000 and 100,000 annually. For useful references and case studies pertaining to the benefits from agroforestry, refer to **Annex 6**.

"Nestle provides the technical training and expertise to farmers on coffee farming and makes available high-quality coffee seedlings. Nestle will also buy from farmers their coffee bean produce which meet the requirements and quality standard of Nestle at prevailing market prices."

David Findlay, Nestle Philippines
Technical Director

Coffee is a high-value crop that can be grown abundantly in the buffer zones around protection forests to achieve sustainable forest resource management, while providing additional income for the upland communities (Leyte Island) ▼

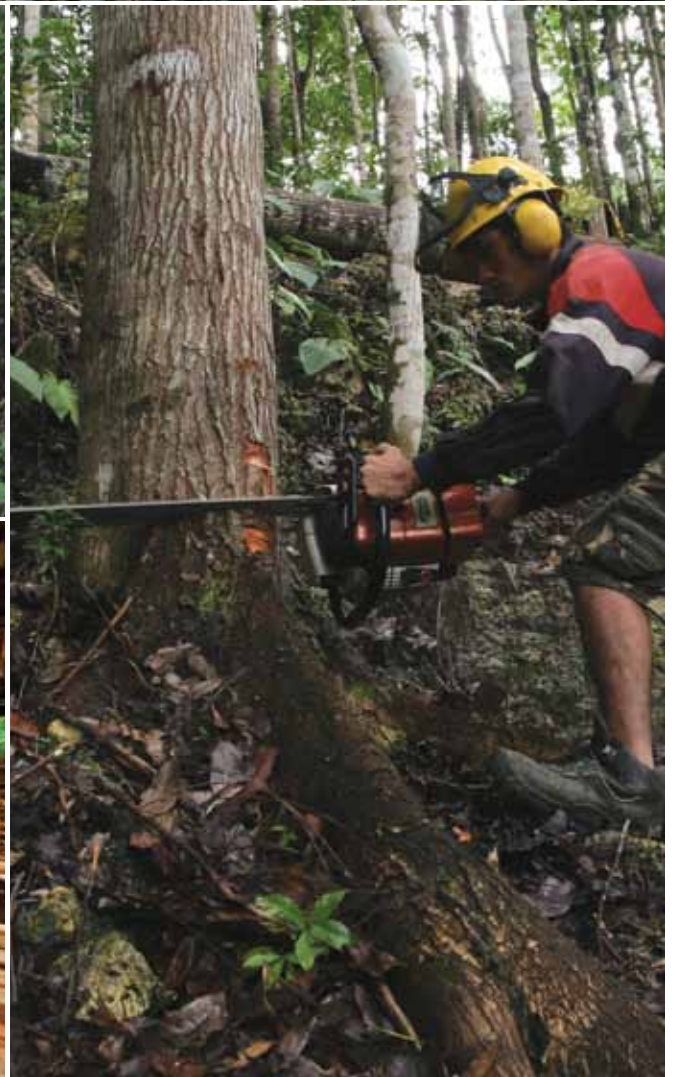


"Our lives have changed for the better since the processing plant became operational, we can now afford to send our children to school; two of which are bound for university next year. I have now a regular income and have bought three pigs from our savings."

Tatay Kinny and his wife, Nanay Lilita,
are employees of the AFFIRE Integrated
Coconut Industries

Community-Based Forest Management farmers and upland farmers in the surrounding areas, supply chain (SC Coco Global) and private sector AFFIRE partnership on white copra processing and marketing of organically produced coconuts, bananas and papayas (Matalom, Leyte) ▼





3

PHASE

Income generation from Low-Impact Timber Harvesting

To attract any investments on forest plantation development, the basic principle is to provide an incentive scheme by allowing the harvest of these products. MOREFORESTs' approach focuses on capacity building of tenure holders to efficiently process Resource Utilization Permit (RUP) and the know-how of sustainable timber harvesting, timber processing and marketing.

Resource Utilization Permit






A Resource Utilization Permit is obtained to be able to harvest what the tenure holder has planted. In order to obtain a Resource Utilization Permit, the following skills are required:

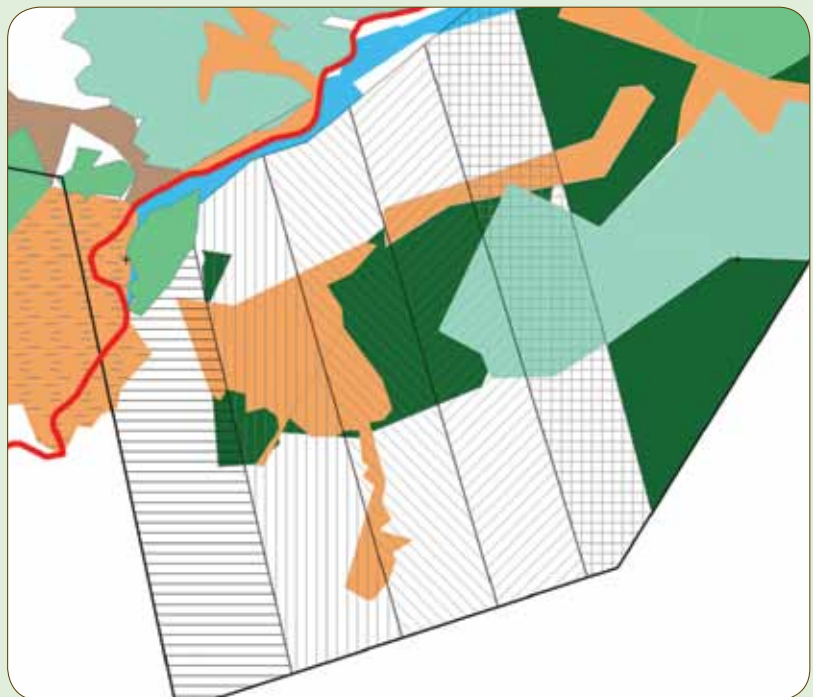
- Timber inventory and preparation and analysis of stock and stand table data
- Survey mapping and blocking with the aid of GPS surveying and GIS mapping
- Preparation of Resource Unit Permit documents and facilitation of approval of the cutting permit

In having equipped the tenure holder on their technical capabilities, the preparation of technical documents are hastened and therefore could lead to a significant reduction of processing and approval period from years of waiting to fewer months. After the Resource Utilization Permit is secured, timber harvesting can commence.

Figure 9. A section of a People's Organization's land use map showing careful planning of community logging.

LEGEND

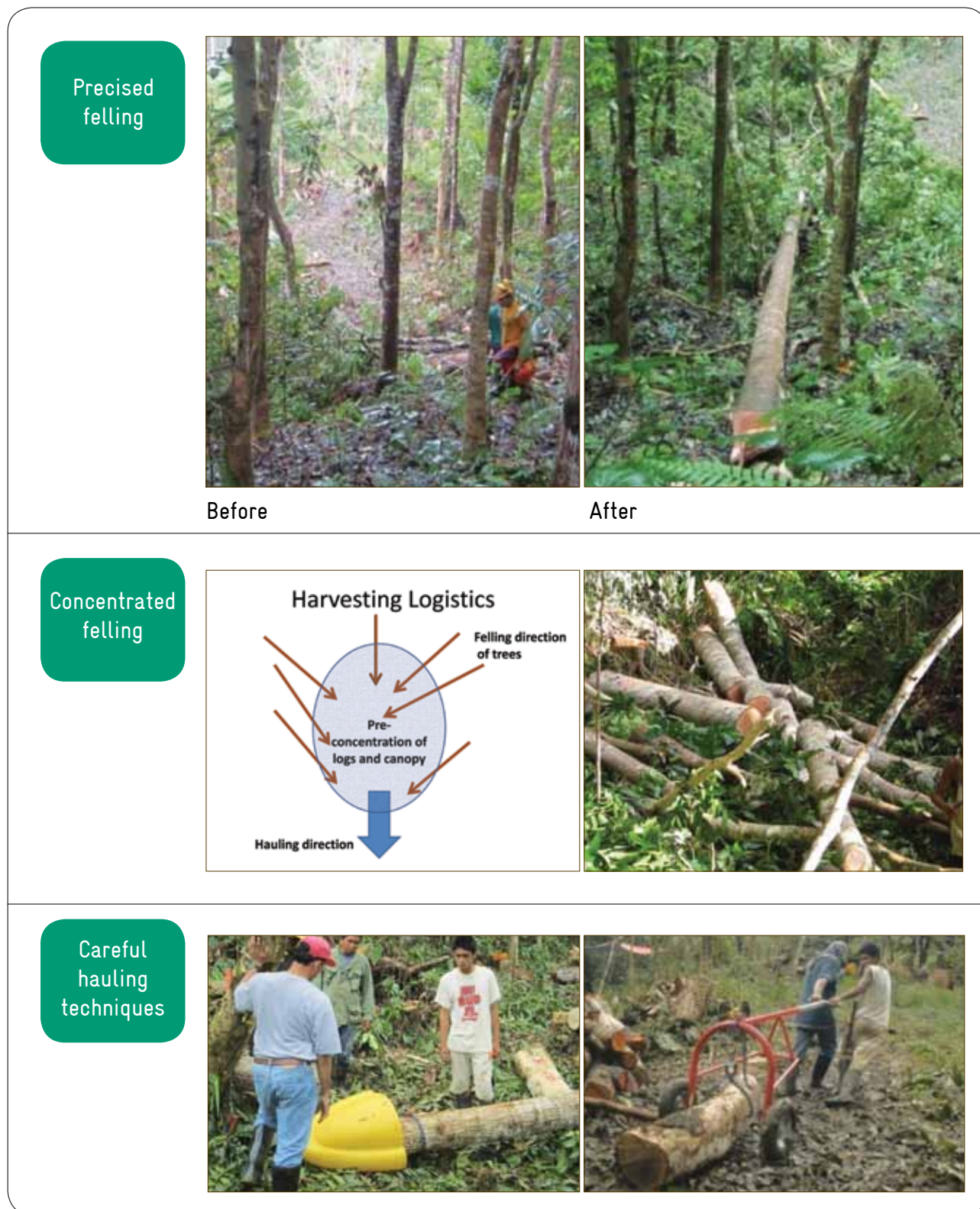
	RUP Block 1
	RUP Block 2
	RUP Block 3
	RUP Block 4
	RUP Block 5



Low-cost and low-impact harvesting methods in compartment units

Utilization of proper tools and equipments is needed to efficiently harvest trees and transport logs from the cutting area to the log pond with least damage to the environment. Hauling of logs is done thru combination of the use of modern tools and traditional use of buffalo carabao (**Figure 10**). For technical specifications, refer to **Annex 7: Guidelines for Sustainable Community-Based Timber Harvesting in Plantation Forests**.

Figure 10. Techniques used by Low-Impact Timber Harvesting that minimizes damage to the environment



The procurement of skidding and yarding equipments and support tools for tree cutting requires some investment. In case no external support can be obtained, the tenure holder may approach rural banks for a short-term loan.

Efficient and value-adding timber processing techniques

To increase the value of harvested trees and to optimize percent recovery of lumber, a low-powered bandsaw will increase the returns / value for the tenure holder by up to 280%. The processed lumber commands higher price as compared to logs. Another consideration of the PO is to develop furniture products, door jams, window jams and others in order to generate added income out of these products.

Marketing of lumber products

Finding the best marketing channel and the establishment of linkages with buyers that buy their lumber at reasonable prices are crucial elements for ensuring returns to the tenure holder's investment. For analyzing the benefits from timber product marketing and value adding for a People's Organization, GIZ commissioned a study that focuses on the profitability and labor employment potential for four different Production Decision Options (PDOs). For main findings, please refer to **Annex 8: Economic Analysis of Community-Based Timber Harvesting**.



MOREFORESTS

Emerging results



MOREFORESTs

Emerging results

Harmonizing major forestry laws and regulations

- Policy studies on clarifying carbon rights, assessment of free prior and informed consent (FPIC) implementation, analysis of key drivers of deforestation and forest degradation in the Philippines, and review and analysis of forest policy conducted
- Analyzed the needs for harmonizing policies that set the frame for defining a policy agenda that are now pursued by partners from DENR, civil society and the academe

Create enabling environment for agencies to effectively carry out their mandates to have more forests

- 15 Co-Management Agreements between DENR and local governments have been signed, preparing the ground for bringing over 150,000 ha of open access forests under protection and sustainable management
- 10 conservation agreements among local government units, People's Organizations, DENR and GIZ being implemented for the protection of more than 10,000 ha of natural forests



Strengthen local government units to effectively carry out their Environment and Natural Resources mandate

- The Provincial Governments of Iloilo, Negros Oriental and Southern Leyte have officially declared to extend Forest Land Use Planning to all their municipalities by using their own resources
- 49 partner municipalities established a Municipal Environment and Natural Resource Office (MENRO) and have a regular staff and budget for forest management
- 1,260 households of 18 People's Organizations have received long-term tenurial rights for a catchment area of 15,300 ha of forestland
- An updated land use map has been finalized for the Panay Mountain Range, based on satellite images and field verification
- Forest Resource Assessment was conducted for Leyte Island, complemented by a forest cover and land use change assessment. This provides information on changes in forest cover over the last decade and can be the basis for a comprehensive forest monitoring system including measuring, reporting and verification (MRV) for REDD+



Capacitate tenure holders to be effective forestland managers

- Financing agreements in the islands of Panay, Negros and Leyte to reforest / rehabilitate 14,128 ha of degraded forestland and establish 6,255 ha of agroforestry areas have been concluded amounting to Php362.9 million, of which 5,075 ha of forests and 2,041 ha of agroforestry plantations have already been established
- Effective monitoring system for reforestation and agroforestry projects introduced, which is now also being integrated into the National Greening Program to verify the actual plantation success
- A substantial amount of additional income for poor rural households has been generated from harvesting of rattan, nipa and wood; one People's Organization on Leyte Island has demonstrated sustainable plantation, timber harvesting and value-adding resulting in revenues of Php1.4M for the People's Organization and generating local employment for cutting, hauling and sawmilling operations
- Four Public-Private Partnerships (PPP) have been established in the coconut, coffee and cacao sector, to stimulate high-value crop establishment and income generation. Over 100 participants were trained in coffee and cacao production



Forest Land Use Plans and corresponding Resource Management Plans are attuned to emerging challenges (integration of climate change adaptation / disaster risk reduction) and opportunities (REDD+)



- A biodiversity assessment for Southern Leyte in November 2011, jointly implemented with the UNDP-GEF-funded NewCAPP Project and conducted by Fauna & Flora International (FFI), identified critical habitats and resulted in the discovery of two new frog species. The findings triggered a resolution from the Southern Leyte Provincial Board (Sanggunian Panlalawigan) to declare Mt. Nacolod a protection forest. The biodiversity survey is now the basis for conservation and sustainable land use planning involving local communities



- A baseline study on the populations of endangered animal and plant species in Panay Island has resulted in the analysis and mapping of critical habitats for biodiversity conservation
- 17 municipalities prepared Forest Land Use Plans (FLUP) and another 32 partner municipalities have started with the forest land use planning process
- Study prepared on the assessment of biomass potential for alternative energy generation in Antique Province, identification of technically and economically feasible options for electric power generation, cooling, drying of rice (palay) and copra, and assessment of avoided CO₂ emissions in Panay Island

ANNEX 1

References on critical habitats

DENR Memorandum Circular No. 2007-02 defines critical habitats as areas outside the protected areas declared in Republic Act No. 7586, or the National Integrated Protected Areas System (NIPAS) Act of 1992. Important and legal information can also be found on this Memorandum Circular, which lists Guidelines on the Establishment and Management of Critical Habitat. These references also include general considerations regarding critical habitat establishment in the Philippines and recommendations based on processes undertaken by the Forest and Climate Protection Panay Project for integration of critical habitats in a Forest Land Use Plan.

ANNEX 2

Enhanced FLUP processes

MOREFORESTs creates the enabling environment to achieve improved governance of public lands. Given the multifaceted function (providing goods and services) of the public lands in the Philippines, resource managers must fully understand the status for which the public land is governed. It provides a framework for clarifying various aspects of governance. It starts by reinforcing the national and local importance of public lands in accordance with the four major uses as prescribed by the Constitution, such as protected areas, mineral lands, forestlands and agricultural lands. MOREFORESTs translates this into manageable portions fit to the local conditions and corresponding to the local governments' territorial jurisdiction. Appropriate national policies governing these pre-identified land uses are already in place.

ANNEX 3

DENR Forest Management Bureau Technical Bulletin No. 2: Forest Land Use Planning

The Department of Environment and Natural Resources (DENR)-Forest Management Bureau issued this technical bulletin as a guide for personnel from the DENR, local government units, forest communities and other stakeholders involved in planning, implementing and managing forest resources and forestlands in the formulation of a Forest Land Use Plan (FLUP). It details the steps on Forest Land Use Planning, which are Data and Map Collection, Situational Analysis, Participatory Prioritization of Sub-Watersheds and Allocation of Forests and Forestlands, Plan Preparation, Legitimization, FLUP Approval and Plan Implementation.

ANNEX 4

Detailed costing of agroforestry and plantation models

Detailed costing of agroforestry and plantation models can be used as a guide for the preparation of a project proposal for a number of reforestation models, such as multi-purpose tree plantation, ANR/enrichment planting, rattan enrichment planting, mangrove reforestation and agroforestry/multi-story fruit orchard. It also includes technical details, monitoring and payment criteria for each model.

ANNEX 5

Reforestation Model Guidelines

Reforestation Model Guidelines are needed because participating local government units, farmers and households need clear and transparent information that will aid them in deciding what measures can be applied. A handout and extension kit should also be provided to forestry extension workers for them to assist People's Organization and farmers in site, model, species and management systems selection. The Reforestation Model Guidelines will also serve as a reference for monitoring of reforestation success.

ANNEX 6

Benefits from agroforestry

Agroforestry – the integration of trees and shrubs with crops and livestock systems – has strong potential in addressing problems of rural poverty and natural resource conservation in the Philippines. Done well, it allows producers to make the best use of their land and can boost crop yields, diversify income and increase resilience to climate change. These useful references and case studies will further expound on several topics such as socio-economic and environment appraisal of agroforestry, economic analysis of different agro-forestry production systems, influence of insecure land tenure on upland agriculture, carbon stocks of agroforestry and plantation systems, and quantifying biodiversity in agroforestry systems.

ANNEX 7

Sustainable community plantation timber harvesting

Plantation timber harvesting creates income for local tree farmers and motivates them to plant more trees, sometimes even providing for the expenses themselves. Timber harvesting also has to follow proven technical, environmental and safety standards, and some recommendations can be found on the Timber Harvesting Guidelines. These guidelines aim to make timber harvesting sustainable through training of forest workers in how to fell, buck and haul logs properly to avoid environmental damage and produce quality timber.

ANNEX 8

Economic analysis of community-based timber harvesting

There is a need to ensure returns to tenure holders' investments, and this can be done by finding the best marketing channel and establishing linkages with buyers that purchase their products at reasonable prices. A study commissioned by GIZ analyzed the benefits from timber product marketing and value-adding for a People's Organization, focusing on the profitability and labor employment potential of four different Production Decision Options. The study intended to produce evidence of the potential benefits of a well-planned and organized community-based tree plantation establishment and harvesting, and provides inputs for the improvement of related government policies and arrangements that will complement the promotion of tree plantation establishment and harvesting as a business venture.

ANNEX 9

Towards joint management of state-owned forestland – Negros Oriental experience

The Province of Negros Oriental is one of the leading provinces in the country to implement joint forestland management. Mandated by the Local Government Code, the local government units (LGUs) in the province are taking an active role in managing the State-owned forestland areas in partnership with the Department of Environment and Natural Resource (DENR). Experiences of implementing Co-Management Agreements and investing into forestland management are shared from the three cities and seven municipalities in Negros Oriental.

ANNEX 10

Barangay land management and allocation process

Defining barangay land management aims to develop consensus on proposed land uses and management prescriptions that will provide adequate livelihood to local communities, ensure sustainable supply of water for agriculture and domestic use, reduce disaster risks, conserve biodiversity and prevent further environmental degradation. As barangay LGUs play a crucial role in the enforcement and implementation of CLUP and other development plans of the municipality or city, these Guidelines based on experiences gathered during the pilot project conducted in six barangays with five LGUs implementing the FLUP and Co-Management Agreements in the Province of Negros Oriental may prove useful.

ANNEX 11

Provincial Forestland Assistance Team

Provincial Forestland Assistance Teams (PFAT) is initially capacitated by GIZ and provides technical assistance to municipalities and cities in FLUP preparation and implementation. The creation of PFAT strengthens existing government structures and enables coordination from technical personnel both from the Department of Environment and Natural Resources and the provincial local government unit. The members of PFAT are foresters, community organizers, agriculturalists and planning officers, and continue to work in their current positions as government employees. This annex tells how PFAT was created and strengthened in Negros Oriental and details the opportunities of province-wide FLUP technical assistance.

ANNEX 12

Valuing forest ecosystems

Forests are complex ecosystems that provide marketed and non-marketed goods and services, and a capable instrument should be used to depict the proper estimates of a forest's value. GIZ has conducted two studies dealing with economic valuation of (forest) ecosystems. One study is to review EnRD's recent work in the light of the three-tiered analytical framework provided by the TEEB Study Group. The second study intends to specify a monetary value for the municipality's forest area in the Visayas and looks at the differences in the valuation of lowland and upland respondents.

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