FORESTS AND FOREST LANDS MANAGEMENT TRAINING GUIDE

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EcoGovernance

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About The FLUP Training Guide

*T*he **Forest Land Use Planning (FLUP) Training Guide** is a synthesis of the training modules and materials used by the Philippine Environmental Governance (EcoGov) Project in assisting local government units (LGUs) develop and implement their forest land use plans. The Guide provides a description of EcoGov's training and mentoring approaches in helping the LGUs systematically formulate various plans of action, including a 10-year FLUP, intended to provide a sound basis for allocating forests and forest lands.

Allocation means assigning to a responsible resource manager (an individual or a group or an organization) certain sections of the forests/forest lands for a specific purpose. Allocation is done by the State, mainly through Congress, the Office of the President of the Republic, the Department of Environment and Natural Resources (DENR), or the National Commission on Indigenous Peoples (NCIP) in the case of ancestral domains.

Land allocation responds to the need to close "open access" forests and forest lands. "Open access" are areas not under any management arrangement and anybody—even those not authorized by the government—can just get in and out and use the resources without having any accountability. "Open access" also refers to areas already allocated or under a certain tenure instrument but abandoned by their assigned managers. These areas have to be allocated (or reallocated, in the case of those tenured but abandoned lands) and place them under the care of responsible resource managers who can preserve, rehabilitate, protect these areas from illegal activities, and use these resources in a sustainable manner.

The primary purpose of an FLUP is to come up with recommendations and agreements on land allocations to close these "open access." This plan, prepared after thorough studies and close consultations with various stakeholders, provides the basis for assigning forests and forest lands under different management, tenure or allocation arrangements.

Executive Order No. 318 (Promoting Sustainable Forest Management in the Philippines) mandates local government units (LGUs) to incorporate FLUPs into their comprehensive land use plans. It is to the interest of the LGUs to have "open access" areas within their jurisdictions allocated. By doing so, the LGUs can have these areas assigned to responsible resource managers, avoid environmental destruction and minimize conflicts between and among community members who directly or indirectly benefit from these resources.
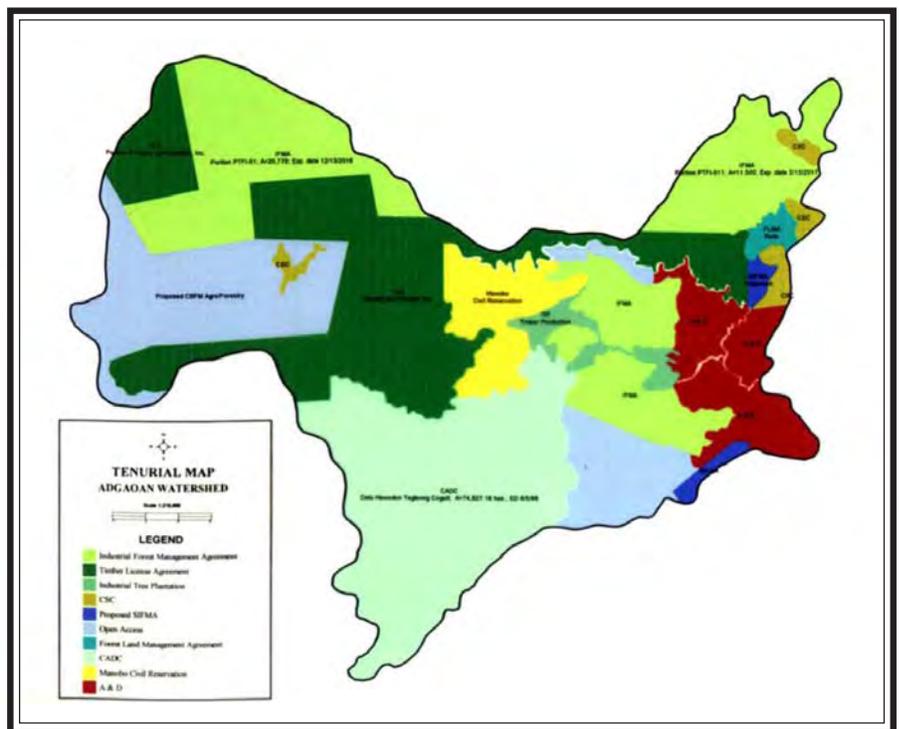
This Guide puts together lessons learned from the two-and-a-half years of Project experience in providing technical assistance to a number of LGUs in EcoGov regions in preparing and implementing their FLUPs. In a way, this Guide may be considered a documentation of EcoGov's "best practices" in putting into place a governance-enhanced FLUP-development process.

This Guide is intended for local service providers (LSPs)[1] tasked to assist municipal and city LGUs in preparing and implementing governance-enhanced FLUPs. It serves as a reference to enhance their understanding of the EcoGov technical assistance approach, to help them develop FLUP training programs for LGUs and to allow them to use EcoGov-developed analytical and decision-making tools that promote the practice of transparency, accountability and participatory decision-making (TAP).

This Training Guide has five major modules:

- Module 1: Orientation on TAP-Enhanced Forest Land Use Planning
- Module 2: Social Preparation, Profiling and Mapping
- Module 3: Situational Analysis
- Module 4: Cross Visit and Exposure trip
- Module 5: Participatory Process in Planning the Allocation of Forest and Forest Lands and Prioritizing Sub-watersheds
- Module 6: Drafting, Legitimization and Approval of Municipal Forest land Use Plan

Highlighted (in boxes) are the governance principles applied in each module to promote transparency and informed decision-making, increase stakeholder participation and clearly establish accountabilities. Also pointed out are specific experiences of the EcoGov Team and the LGUs, which demonstrate significant improvements in SWM practices.

To ensure that training participants will get an appreciation of the concepts, policies, processes and tools relevant to the modules, the Guide devotes a significant portion to the content of the technical inputs provided during the training. Recommended topics or inputs are provided in the Lecture Notes and discussion and facilitation guides that are found at the end of each module or sub-module.

In addition, the Guide provides a set of annexes (each module has a corresponding annex, e.g., Annex 1 for Module 1), which contains the guidelines, sourcebooks, templates and examples that have been developed by the EcoGov FFM Team for that particular module.

The Guide does not include the detailed training programs and presentation materials used in previous training. This is to give users some flexibility in the design of their training activities.

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[1] The service providers referred to here include DENR field offices, provincial governments, non-government organizations (NGOs), consulting firms, academic institutions and individual professionals.

Project Background

*T*he country's rapidly increasing population, resulting in higher demand for the use of our natural resources and generation of more solid wastes, has brought about adverse effects on the environment. The government, with its limited capacity and resources, is thus, challenged to provide innovative mechanisms directed at shifting the people's attitude and practices towards sustainable use of natural resources and reducing waste generation.

It is believed that technical solutions alone may not be enough to overcome these challenges; ensuring that good governance is part of management options may prove to be the key in effectively addressing these environmental issues.

It is in this light that the Philippine Environmental Governance Project (EcoGov) is strengthening LGU capacity in incorporating good governance principles and practices in Coastal Resource Management (CRM), Forests and Forestlands Management (FFM) and Solid Waste Management (SWM). Specifically, the Project is assisting LGUs address the threats of over fishing and use of destructive fishing practices within their municipal waters; illegal cutting and forest lands conversion; and unmanaged solid wastes. This assistance is in the form of training, coaching and mentoring LGUs in the conduct of resource and resource use assessments, evaluation of management options, planning, and initial implementation activities using processes and tools that emphasize elements of good governance, such as transparency, accountability and participatory decision-making (TAP).

At the national and regional level, the EcoGov Project provides policy and advocacy/IEC support to improving coastal/forest resources and solid waste management, through the review and enhancement of existing policies, conduct of policy studies, and production of sourcebooks, primers and information materials. National policy and institutional support specific to the FFM sector includes:

- ARMM's Regional Sustainable Forest Management Act, otherwise known as the Muslim Mindanao Autonomy Act (MMAA) No. 161.
- Executive Order (EO) No. 318 (Promoting Sustainable Forest Management in the Philippines).
- Tree for Legacy supplementary guidelines for Nueva Vizcaya, which the DENR 2 Regional Executive Director signed in January 2004.
- DENR Administrative Order (DAO) 2004-35, which provides the "Revised Rules and Regulations Governing the Administration, Management, Development and Disposition of Forestlands for Grazing Purposes."
- DAO 2004-29, which provides the "Revised Rules and Regulations for the Implementation of Executive Order 263, otherwise known as the Community-based Forest Management Strategy."
- DAO 2004-30, which provides the "Revised Rules and Regulations Governing the Socialized Industrial Forest Management Program."

All these interventions are intended to contribute to the long-term economic development of the country.

The Development Alternatives, Inc. (DAI) is implementing the EcoGov Project in collaboration with the Department of Environment and Natural Resources (DENR). EcoGov national specialists and the Project's regional teams, along with DENR and provincial government partners and a number of individual LSPs, provide technical assistance to LGUs.

The FLUP Modules in Summary

L GUs now share with the national government the responsibility of maintaining the ecological balance within their respective jurisdictions. Under the Local Government Code (RA 7160), certain forest management functions were devolved to the LGUs.

This Code allows for the DENR and the LGU to enter into a co-management agreement, which empowers the LGU to develop, manage, protect and use in a sustainable manner a specified area of forest/ forest land.

The DENR, upon the recommendation of the LGU, may also set aside a communal forest, which may be the source of forest products for the use of residents of a municipality or city. In addition, the DENR – again with the LGU's recommendation — can assign certain forests/forest lands as community watersheds, which are Figure 1: FLUP process sources of water supply for specific local communities.

These and other allocation/management arrangements can be decided upon based on an FLUP. The LGU shall develop this plan with the help of the DENR and upon consultation with local communities. As earlier mentioned, LGUs are now mandated by Executive Order No. 318 to incorporate their FLUPs into their comprehensive land use plans.

These modules on FLUP are expected to help facilitate the development of the plan by the LGUs. Figure 1 shows the whole process, from data gathering up to plan implementation. Figure 2 summarizes each module.

Forest Land Use Planning Process

- Data and Map Collection
- Situational Analysis
- Participatory Prioritization of Sub-Watersheds and Allocation of FFL
- Plan Preparation
- Legitimization
- Approval of plan by DENR Region
- Implementation of FLUP
  - DENR-LGU implementation:
    - ✓ co-management agreement on selected watersheds
    - ✓ issuance of tenure instruments
    - ✓ formation & training of MFPCs
    - ✓ investment promotion
    - ✓ Monitoring on-site FFL mgt of tenure/allocation holders

Figure 1: FLUP Process

Module 1 (Orientation on TAP-enhanced Forest Land Use Planning) provides an overview of the FLUP process and discussion of good governance principles (transparency, accountability and participatory decision-making or TAP) that have to be injected into the preparation and implementation of the plan.

Module 2 (Social Preparation, Profiling and Mapping) emphasizes the need for forest stakeholders to participate in giving inputs to the process of data gathering and validation as reliable pieces of information are very important for a sound and informed decision making.

Module 3 (Situational Analysis) provides a step-by-step guide in evaluating the existing condition of the LGU's forests and forest lands through map overlay analysis, simplified simulation techniques and other tools. A primary purpose of this module is the validation and sharing of initial findings (based on data gathered during the previous module) with key stakeholders.

Module 4 (Cross Visit and Exposure Trip) allows participants to see firsthand successful forest management activities and discuss face-to-face with those implementing the FLUP. It also facilitates broader understanding of the need for pro-active LGU engagement in forest lands management.

Module 5 (Participatory Process in Planning the Allocation of Forests and Forest Lands and Prioritizing Sub-watersheds) provides training and simulation exercise for the LGU's FLUP team. It includes orientation on relevant policies and criteria for the allocation of forests and forest lands and prioritizing sub-watersheds.

Module 6 (Drafting, Legitimization and Approval of Municipal Forest Land Use Plan) provides a venue for the joint preparation of the FLUP by the DENR and the LGU. It also highlights the need to have the FLUP legitimized and approved by appropriate bodies and to secure a signed LGU-DENR (and NCIP, in the case of ancestral lands) implementation memorandum of agreement.
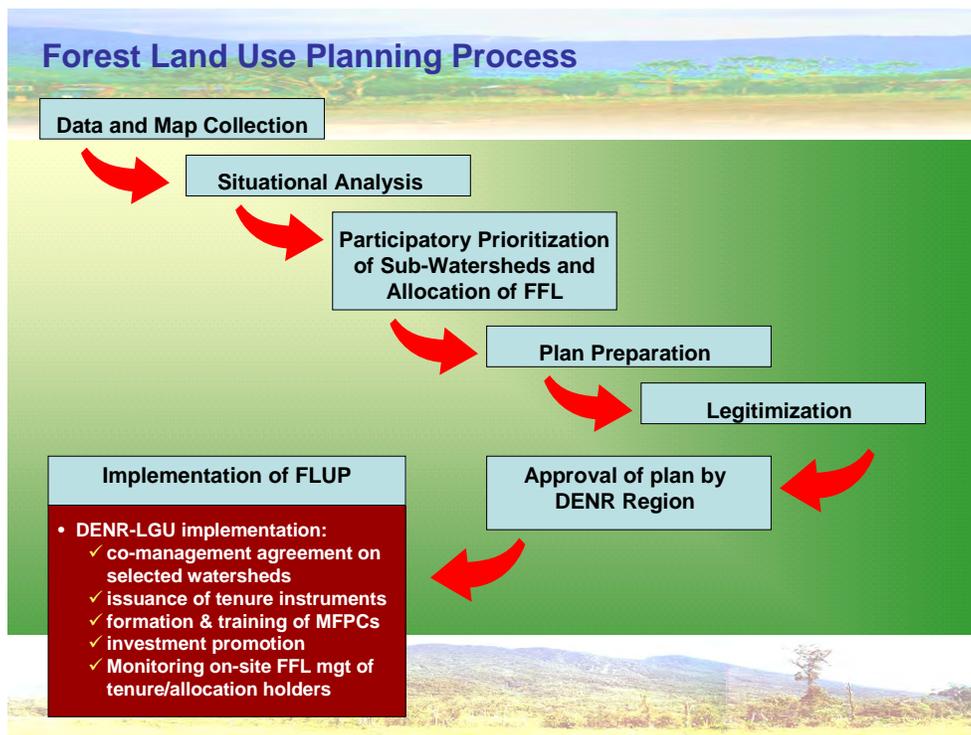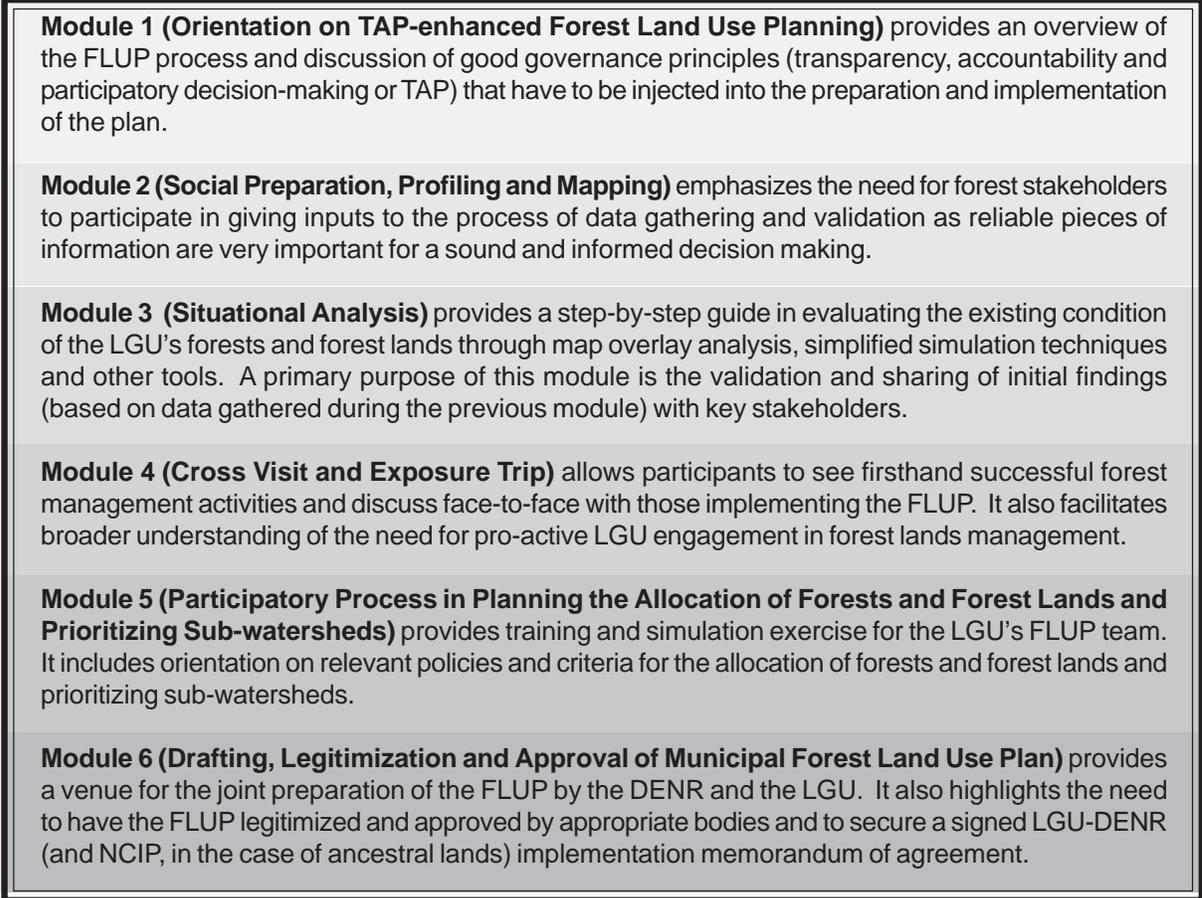
Figure 2: Module Summaries

Module 1

Orientation on TAP-Enhanced Forest Land Use Planning

Module Coverage

This module details the rationale, importance and principles of FLUP and orients members of the FLUP technical working group (TWG) on the overall FLUP process, data requirements, and the applicable tools and methods used for data collection, thematic mapping, data analysis and validation and planning.

Module 1 explains the objectives, methodologies, required assessment and analysis, importance of good governance (transparency, accountability and participatory decision-making or TAP) principles and practices in planning and allocating forests and forest lands. It also discusses relevant government policies on the protection of forests and forest lands and stresses the need for community-validated forest data and maps, and the legitimization and approval of FLUPs. Also, this module briefly discusses the suggested FLUP outline (See **Annex 1**). At the end of the training module a general activity plan for community orientation, data collection, analysis and validation is prepared.

The planning process emphasizes that sustainable forests and forest lands management is not solely dependent on technical solutions, but also on the socio-economic, institutional and political considerations.

Expected Module Outputs

The module targets to develop a general work plan for the FLUP formulation.

In preparation for Module 2 activities, it is also expected that an activity or action plan for increasing upland community support and data collection and mapping is completed at the end of this module.

The action plan includes information on:

1) Types of promotion activities to be conducted in various upland communities;
2) Checklist of various data and maps to be collected with data sources;
3) Different thematic maps to be produced;
4) Organization of the TWG-LSP sub-teams and their respective responsibilities;
5) Schedule of activities; and
6) Supplies and logistics requirements to accomplish the expected outputs and their sources.

> **Emphasizing TAP principles**
>
> *The most important component of the module is the thorough presentation of the whole FLUP processes in the context of good governance principles (TAP).*
>
> *It enumerates the relevance of each principle for effective planning and implementation to attain the objectives of sustainable forest management and soil and water conservation.*

The module is a 3- to 5-day training course, which can be conducted for a cluster of LGUs (two to three). A week is allotted for training preparation.

Module Approach

The module begins with orienting the multi-sectoral TWG on the present forest situation in the region and the country. After the lecture, a group discussion is facilitated focusing on the extent, causes and effects of deforestation in the LGU. Results of the discussion are synthesized and presented to the group.

Given the present scenario on the local, regional and national situation of the forest sector, the discussion moves to explain the FLUP process as a tool for addressing forestry issues and concerns. It is during this session that principles and key concepts of FLUP as well as important policies and allocation/tenure instruments in forest lands are explained. Another group discussion is held to assess stakeholders' knowledge on sustainable forest management programs, which have been implemented, and on existing allocation of forest lands in the LGU.

The module, then, elaborates on the FLUP process, data and map requirements of FLUP and a brief overview of the participatory tools in data gathering and mapping. The last session of the module is devoted to organization of working teams and action planning for Module 2 activities and expected outputs, functions and composition of sub-teams and resource requirements. TWG members and LSPs are divided into groups to cover at least three major tasks of Module 2:

1) Community orientation and participatory appraisal (data collection from communities);
2) Collection of socio-economic data from secondary sources; and
3) Community and thematic mapping.

The action plan is, then, presented in the plenary discussion.

Participants

This module is intended for members of FLUP-TWG of the LGUs, LSPs (who will provide assistance to these LGUs) and DENR staff (who are to support the LGUs in FLUP formulation, validation, legitimization, approval and implementation).

Orientation on TAP-Enhanced Forest Land Use Planning

I.   Current Forests Situation in the Philippines and in EcoGov Regions

II. Current Reality Dialogue
    A.   Extent of deforestation in the LGU
    B.   Causes and effects of deforestation

III. Rationale and Principles of FLUP
    A.   Rationale for FLUP
    B.   Governing Principles in FLUP

IV. Key Concepts Relevant to FLUP
    A.   Objectives
        1.   Sustainable Forest Management (SFM)
        2.   Soil and Water Conservation (SWC)
        3.   Biodiversity Conservation
    B.   Approach
        1.   Watershed as a planning unit
        2.   Land allocation to close open access
        3.   Environmental governance
    C.   Key Concept - Sustainable Forest Management
    D.   Key Concept - Soil and Water Conservation
    E.   Key Concepts - Biodiversity Conservation
    F.   Key Concepts - Watershed
        1.   Watershed as catchment area or drainage basin
        2.   Watershed as a planning unit
    G.   Key Concepts – Land Allocation to Close Open Access

V.   Decision Points in FLU Planning
    A.   Land Allocation
    B.   Investment in FFM
    C.   Support to Plan Implementation

Governance-Oriented FLUP

I.   Objectives of FLUP Training

II. DENR's Role in Governance-Oriented FLUP

III. What is Governance-Oriented FLUP? (Discuss:Participatory process resulting to ownership of agreements; use of key governance principles such as TAP; agreements among stakeholders; road map; plan to assess forest/forest lands (FFL) improvements; results and products of transparent, iterative, participatory and multi-sectoral processes; and process of generating mental image of the "FFL's future").

IV. What Goes into Governance-Oriented FLUP? (Analysis of critical issues; identified sources of discomfort and discontents in FFL; discernment; findings – hindsight, foresight, world views and context; key recommendations; carrying-out recommendations; costs of FLUP implementation; and financing FLUP implementation.
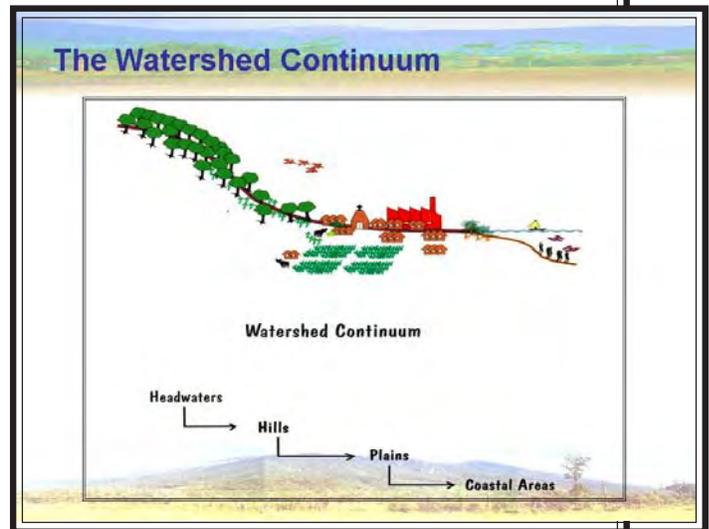
V. The Municipal FLUP-Contents and Substance

VI. The Theory: Why Governance-Oriented FLUP?
    A. Forests and forest lands are natural resource assets
    B. Forests and forest lands produce multiple products and services with intergenerational and inter-spatial impacts
    C. Forests and forestlands have numerous stakeholders
    D. Decisions and actions with respect to natural resource assets; decisions cannot be unilateral
    E. Rights to allocations, access, use and management of forests and forestlands as susceptible to economic injustice leading to "elite or state capture", inequality, poverty and "rent seeking behaviors"
    F. Forests and forestlands not just a scarce "political and economic commodity"; a natural resource assets impacting economies

VII. The Analysis: Why Governance-Oriented FLUP?
    A. Technically-sound solutions being not enough to sustain FFL productivity and its services
    B. Weak or failure of governance as recognized key problem in environmental degradation, instead of insufficient technical solutions
    C. Need to "fit" technical solutions with capacities and constraints of "de-facto" and "de-jure" resource managers and stakeholders

VIII. Operations: Why Governance-Oriented FLUP?
    A. The need for local collective actions from all stakeholders
    B. The need to allocate FFL assets to the most accountable, capable and responsible resource managers
    C. The need to create opportunities for "buy-ins" from responsible stakeholders
    D. The need to "fit" what's happening on the ground with policies, actions, practices, SOPs, behaviors, values and perspectives of decision-makers and actors.

VIII. Bottom Line of Governance-Oriented FLUP
    A. Both process and outputs of FLUP are about "power and control" over decisions and resources
    B. Balancing, directing, appropriating and equally distributing power of state among different stakeholders with respect to the allocation, management, regulation and use of forests and forestlands.
    C. Power: the basic energy to initiate and sustain action
    D. Power: capacity to translate intentions into reality and sustain it
    E. What and where are those powers vested with regards to forests and forest lands? State? DENR? LGUs? Communities? Elite? Private sector? Who?

IX. Challenges in Facilitating Governance-Oriented FLUPs
    A. Need for paradigm shift with respect to DENR's role in managing FFL assets
    B. Shift from centralized regulatory system and micro-management to "thinking, problem finding and challenging old conventions by suggesting new directions, new visions, different ways of doing things" to improve FFL assets at the LGU or community levels
    C. Gaining commitments from all FFL stakeholders
    D. Capacitating DENR as technical leaders, providers and "broker" in "influencing and organizing efforts to disseminate and translate meanings of" sound governance of FFL assets to other members of TWG, LGU, fellow DENR staff, civil society and local leaders.

X. Key Concepts (and definitions) in Governing FFL Assets
    Decentralization, subsidiarity and local organizational capacity; inclusion and participation of key stakeholders; accountability; transparency and access to information; social justice; collaboration and partnership; stable and secure property rights; intergenerational and inter-spatial equity; sustainable forest and forest lands management; trade-offs, externality, opportunity costs

XI. FLUP and Good Environmental Governance
    A. "Role of government in managing the inter-relationships between the various subsystems in nature, such as those within and among different species and ecosystems, including the economic, social and cultural subsystems."
    B. Technical Solutions to Resource Management (TSRM) + Good Governance (GG) + Performance Indicators Based on Standards (PIS) = Improved and Enhanced Environmental Conditions (IEEC)

C. Who can provide TSRM?
D. Who could and should exercise GG?
E. Who should provide PIS and get involved in the periodic conduct and assessment?
F. How can governance-oriented FLUP contribute to IEEC in FFL?
G. Do you think IEEC is possible or "tama sa buwan" and only in the realms of "academia"?

XIII. LGUs in the Governance-Oriented FLUP Process
    A. Involve LGUs in the allocation and management of FFL
        1. LGUs and its constituents having a voice and "stake" on how forestlands will be managed; sense of local ownership being essential for local people being continually involved in FFL management
        2. FFL being economic assets and key component of the environment; LGUs and stakeholders being best managers of these resources since they are physically present where these resources are located
    B. Integrate transparency, accountability and participation (TAP) principles into the FLUP
        1. Supply-side: FLUP process generates, provides and disseminates accurate information, analysis and recommendations fro decision-makers and implementers during the planning and implementation following the TAP principles
        2. Demand-side: Key FFL stakeholders are involved in generating, validating, disseminating information and analysis, in crafting recommendations and in lobbying and organizing collective actions to hold "responsible officials" accountable of their decisions, actions

XIV. TAP in Governance-Oriented FLUP Process
    A. Transparency
        1. Definition: "The extent to which the general public has current, complete and reliable information about decisions and actions taken by a government unit or public agency"
        2. Examples
            a. Posting of plans/zoning maps, ordinances and proceedings in public bulletin boards
           b. Periodic publication of performance audit reports, financial statements, reports on license/permit issuances, results of transactions/bidding
           c. IEC on local legislations enacted
    B. Accountability
        1. Definition: "The degree to which the officials and staff of a government unit or of an agency is held responsible for their decisions and actions and for the performance of their staff and offices"
        2. "Answerability by state officials, public employees and private sector to their constituents for policies, actions and use of funds
        3. Examples
            a. Clear definition of roles and responsibilities
           b. Holding periodic public expenditures review
           c. Clear sanctions and incentives
           d. Periodic conduct of performance audit
           e. periodic assessment of policies
    C. Participation
        1. Definition: "The degree that the general public, especially key stakeholders and marginalized groups have access and opportunities to influence the decision or action of a government or public agency
        2. Examples
            a. Consensus building; establishment of conflict resolution mechanisms
           b. Public consultations/hearings prior to decision-making/legitimization of plans/issuance of ordinances
           c. Multi-sectoral representation in committees, working groups, management councils, enforcement groups
           d. Participatory M and E; community feedback system

XV. Sound Environmental Governance and FLUP
    A. Transparency in the allocation of forests and forestlands and issuance of resource use rights; equal access to information relating to forests and forestlands; informed-decision making
    B. Accountability of holders of tenure/allocation instruments based on their commitments, agreements, plans in the management of the areas they are responsible for; accountability of DENR and LGU to support forest/upland development and for their resource allocation decisions

C. Participation of stakeholders in the analysis, planning and land allocation process; participation of stakeholders in forest management and forest policy advocacy

XVI. Forest Land Use Planning Process
    A. Briefly Data and Map Collection
    B. Situational Analysis
        1. Data and map analysis
        2. Issues identification and mapping
        3. Preliminary recommendations
    C. Participatory Prioritization of Sub-Watersheds and Forest Land Allocation
        1. Visioning, strategy setting
        2. Criteria setting
        3. Ranking of sub-watersheds
        4. Preliminary land allocation
        5. Analysis of land allocation options
    D. Plan Preparation
        1. Integration of analysis
        2. Finalization of thematic and analysis maps
        3. Finalization of land allocation proposal
        4. Finalization of recommended strategies and actions on issues
        5. Drafting of 5-year plan
        6. Preparation of Year 1 work plan and budget
    E. Legitimization
        1. Presentation of plan to DENR, MDC and SB
        2. Refinement of plan
        3. Issuance of resolutions to adopt the plan
    F. Approval of plan by DENR Region
        1. Endorsement of plan to DENR region
        2. Signing of MOA between DENR and LGU and NCIP if applicable
    G. Implementation of FLUP
        1. DENR-LGU implementation activities such as:
            a. co-management agreement on selected watersheds
            b. issuance of tenure instruments
            c. formation and training of multi-sectoral forest protection groups
            d. investment promotion

XVII. TAP Practices During FLUP Preparation
    A. Data and Map Collection
        1. Community orientation on FLUP objectives and activities (T,P)
        2. Stakeholder analysis (P)
        3. Multi-sectoral participation (P)
        4. Due diligence in sourcing maps/data (A)
        5. Proper documentation of data/info sources (A)
        6. Community validation of data and maps (T, P)
    B. Situational Analysis
        1. Multi-sectoral participation (P)
        2. Joint analysis of data and issues (T, P)
        3. Community validation of findings (T, P)
    C. Participatory Prioritization of Sub-Watersheds and Forest Allocation
        1. Multi-sectoral participation
        2. Consensus-building on criteria
        3. Joint analysis of data (T, P)
        4. Informed decision-making (T)
        5. Community validation of proposals (T, P)
    D. Plan Preparation
        1. Inclusion in the plan of: clearly defined organizational responsibilities (LGU, DENR and others); transparent procedures for bidding and issuance of permits/tenure instruments; accountabilities of tenure holders; incentives and sanctions; IEC support; multi-sectoral participation in policy formulation, planning, monitoring and enforcement (T, A, P), etc.

2. Inclusion of implementation action plan and budget requirements (A)
E. Legitimization
    1. Public hearings (T, P)
    2. Discussions on the plan at MDC and SB (T, P)
    3. SB Resolution committing to include budget in investment plan (A)
    4. IEC on legitimized plan (T)
F. Approval of plan by DENR
    1. Joint commitment to implement plan, including commitment of resources (A)

Module 2

Social Preparation, Profiling and Mapping

Module Coverage

The relevance of FLUP in addressing forest concerns and issues is dependent on how plans have been contextualized within the socio-economic and cultural variables of the LGUs' forest areas. Reliable baseline data are, thus, important for a sound and informed decision-making. The participation of key forest stakeholders in giving inputs to the process of gathering and validating forest-related data should also be given priority.

This module provides a venue for the FLUP team's field activity. It identifies major forest stakeholders who should be informed about, and involved in, the FLUP. In this module, roles and responsibilities of the FLUP team members identified in Module 1 are reviewed and further clarified.

Module 2 also focuses on gathering required data and maps for assessment of present socio-economic and cultural conditions as well as the status of forests and forest lands.

The module discusses organizing data gathering and community IEC teams as well as activities on profiling Indigenous Peoples or IPs (in areas where they are present) and mapping.

Specifically, the module centers on:

1) Collecting and consolidating required socio-economic and cultural data for the FLUP;
2) Collecting and preparing relevant thematic maps;
3) Validating key socio-economic and cultural data and completed thematic maps with concerned communities, groups and other stakeholders; and
4) Updating data and maps after field validation, reconnaissance surveys or selected community mapping activities.

The module is completed over a period of two months.

Expected Module Outputs

Expected outputs of the module are updated and validated socio-economic and cultural information on the concerned municipality. Outputs also include corrected thematic maps that cover: major drainage system within the municipality and sub-watersheds within the boundaries of the LGU

Community profiling and mapping are major activities under Module 2 of forest land use planning

(reflecting upper, middle and lowland portions of the sub-watersheds); land classification, showing A&D and public forests and forest lands; forest cover, indicating mossy and old growth, residual forests, plantations, upland farm types, grasslands and other types, if any; and existing tenure or allocation of forests and forest lands, reflecting among others boundaries of existing Certificate of Ancestral Domain Claims (CADCs) and in-process Certificate of Ancestral Domain Titles (CADTs) applications, Community-Based Forest Management Agreements (CBFMAs), Integrated Forest Management Agreements (IFMAs).

Thematic maps should also include slope, 18% and below, 18% to 30%, 30% to 50% and above 50%; elevation, 500 masl and below, 500 to 1000, and above 1000 masl; political boundaries, showing barangays; hazard and flooded areas; infrastructures, including existing and planned roads, irrigation systems, bridges, power distribution systems, ports, dams, etc; settlements showing density of population per barangay and location of upland communities or settlements including location of IP communities; location of existing projects/intervention by DENR, Department of Agriculture/Bureau of Fisheries and Aquatic Resources (DA/BFAR), National Irrigation Authority (NIA) and other agencies and institutions; and a map indicating existing and emerging land-based or natural resource-related issues such as conflicts and hotspots areas.

Module Approach

This module starts with organizing the FLUP data gathering teams at the LGU level. The teams organized under Module 1 may be augmented by including other representatives from the DENR, LGU or other relevant agencies Once the teams are in place, they are trained on community IEC, mapping and the various techniques of gathering socio-economic and cultural data. The IEC team then proceeds with conducting community IEC about the FLUP after which, barangay data gathering teams are organized. Field data gathering and validation activities follow.

Applying transparency

In Module 2, an IEC team is trained on how to conduct community activities with the aim of informing various stakeholders about the FLUP before initiating any data gathering activity.

The formal training session of this module starts with preparing an IEC plan for the FLUP activity. An exercise is included where the team prepares IEC presentation materials for the community IEC to be conducted in the barangays. A stakeholders' analysis is also undertaken to identify the primary stakeholders, who will be invited during the community IEC and who would be mobilized to participate in the FLUP. What follows is a discussion of the different community profiling tools/techniques, thematic mapping and map overlay analysis. An exercise/ workshop is conducted after the lecture to demonstrate community mapping, Technology of Participation (ToP) in FLUP, watershed delineation and map overlay analysis.

Organizing the FLUP Data Gathering Teams

At the minimum at least two teams should be created: a) mapping team and b) community profiling and IEC team.

Stressing accountability

In this module, each team agrees on the roles, responsibilities and expected outputs of the group. It is at this point that accountable persons/groups for particular tasks are identified.

For the municipal level, data gathering teams involve members of the FLUP TWG and additional representatives from DENR-CENRO, LGU units (i.e., Municipal Planning and Development Office or MPDO, Engineering, Assessor's Office, DAR/MARO) and other relevant agencies. On the other hand, barangay data gathering teams may be organized in selected barangays, particularly in the uplands and in areas where there is significant interaction between the barangay residents and the FFL resources. The Barangay Development Council can be tapped as the data gathering team. The community leaders and the members of the TWG select the representatives. The group is composed of 10-15 members of both sexes, with young people and adults, and a mix of IPs and migrants in heterogenous communities.

Each team, agrees on the roles, responsibilities and expected outputs of the group. It is at this point that accountable persons/groups for particular tasks are identified. A detailed action plan is then prepared for the group. It is important that a group is assigned for proper coordination, communication and collation of information. This can be a unit within the LGU such as the MPDO.

Community IEC and Profiling

Before any field data gathering activity is initiated, the community IEC and profiling team conducts information and education campaign about forest land use planning in the municipality and its barangays most specially in upland barangays. The IEC team undergoes an IEC training and formulates IEC presentation materials for the community. The importance of the FLUP in promoting effective management of the community's forests and forest lands is emphasized, including the roles of community members and other stakeholders in the formulation of FLUP.

The data gathering team is organized at the municipal level in preparation for field data gathering activities.

Encouraging community participation

The IEC team not only promotes FLUP but asks various stakeholders to join in the development of the plan.

Field data gathering commences after conducting community IEC. Basic socio-economic and cultural data are collected such as population and migration at two time periods, ethnic composition, economic activities, resources and resource uses, agricultural production, forest-based economic activities, community facilities and infrastructures, key stakeholders and community problems, issues, constraints and opportunities. The team uses participatory community profiling tools such as participatory rural appraisal, key informant interview, focus group discussion, transect and community mapping. The FLUP data collection guide would be useful to the team in focusing its community profiling activities.

Profiling of Indigenous Peoples

This session concentrates on gathering information about IPs, who should be mobilized to participate in the formulation of the FLUP. It details the step-by-step process required in profiling IPs (see **Annex 2A** for **Profiling of IPs**).

Locating and identifying IPs is the first necessary step in profiling the sector. Ethnolinguistic maps provide information on the location and distribution of IPs. Other maps available which are useful in locating and identifying IP groups are the following: Philippine Culture and Ecosystems Map (1998) by Environmental Science for Social Change (ESSC); map by the National Council of Churches in the Philippines (NCCP) and the People's Action for Cultural Ties (PACT) (1983); and language map published by the Summer Institute of Linguistics (1999).

Other materials are also available in universities such as Ateneo de Manila and University of the Philippines. Maps of ancestral domains which have been granted CALC/CALT and CADC/CADT are, also available at the (NCIP).

The demographic data of IPs can be derived from the National Statistics Office, NCIP, donor agencies/ funding agencies, NGOs and researchers working in areas occupied by IPs, anthropological researches, and LGUs. The social structure of IPs is also studied. The process focuses on identifying patterns of social and political organization including forms of family, kinship and marriage. These are to be considered since

these will impact on land tenure and accompanying belief systems. Examination of political organization of IPs, on the other hand, entails identification of traditional leaders for each community.

Mapping

The mapping exercise begins with expectation setting. The team is introduced to the purpose of the activity and basic mapping procedures and standards. The municipal mapping team initially collects available thematic maps at the offices of the DENR, LGU, NCIP and other agencies.

Thematic maps include administrative maps of barangays, drainage, slope, elevation, vegetative cover, location of infrastructures, land classification, classification, tenure, and settlements. Since in most cases the maps are in different scales, they should first be converted into uniform scale of 1:50,000 so that the team can perform map overlay analysis later on. Subsequently, community mapping is undertaken especially in the upland barangays to validate and update the prepared thematic maps and to develop other thematic maps such as issues and hotspots map,

The mapping team conducts thematic mapping at the CENRO

The community mapping team composed of barangay representatives and facilitators, then conducts reconnaissance survey of the area to be mapped. Selected areas in the community are observed at this point. A discussion is held to contextualize the community mapping exercise. Details on farm, environment, farm practices, and perception about their land, daily routines, livelihood and problems encountered are the foci of discussion. Also, it is important that stakeholders are made aware of existing forest/environmental degradation in the municipality.

The actual mapping exercise begins with a base map preparation. A base map is a rough sketch of the permanent community features such as roads, rivers, creeks, mountain, ridges, peaks, springs, etc. It guides the community in generating community thematic maps. Consolidation and manual contorting of community maps are then conducted to come-up with the technical maps. FLUP teams are expected to produce the following from community mapping: base map; settlement and infrastructure maps; community resource map; existing land and resource use maps; issue map; and proposed allocation map.

The mapping team can refer to the guidelines in the preparation of FLUP thematic maps for details of mapping procedures and standards (See **Annex 2B**).

Validation and Updating of Socio-Economic and Cultural Data and Thematic Maps

To promote TAP in the generation of information as basis for making decisions in FFL allocation, protection and management as well as in watershed prioritization, the collected data and maps are presented to various stakeholders for validation. This provides an opportunity for different stakeholders to review and update the collected data and provide additional information which may be relevant in forest land use planning.

Aside from field validation through key informant interviews, focus group discussions (FGDs), reconnaisance surveys and community mapping, the FLUP TWG presents the consolidated data and maps in a general meeting attended by officials/representatives of the barangay, DENR, people's organizations (POs), NGOs and the LGU.

Participants

Those involved in the conduct of this module are members of the mapping and the community profiling/IEC teams, which may include members of the TWG and representatives from the DENR and other LGU units (for the data gathering teams at the municipal level); and possibly members of the barangay development council (for the barangay level data gathering teams).

Lecture Notes

Training on Developing Simple IEC plan for Forest Land Use Planning

I.   Different Communication Approaches – A brief discussion on commonly used communication approaches at the local level (IEC, Social Marketing, Development Support Communication, Social Mobilization and Advocacy. Emphasis given on the commonalities of features, stressing that at the local level, it is not really important to remember the right terminology to use; what is important is that you know who you are talking to, you know exactly what to tell them and know the best way to tell it to them.

II. Review of Communication Process and Concepts – Includes a brief review of elements of communication (sender, message, channel, receiver, feedback and feed forward). Feed forward is knowing your audience (which is actually audience analysis) first before communicating with him/her.

Suggested Exercise: Message relay or relevant exercise that helps in demonstrating the communication process.

III. Questions to Ask When Developing a Simple IEC Plan for FLUP
- What's the situation? – Emphasizes importance of doing an analysis of the IEC situation (problems, issues, etc.)
- What is the product? - Identifies the specific idea, tangible object or friendly behavior that needs to be promoted
- Who are the target audience or adopters? - Identifies the target audience of the "product"
- What's the profile of your target audience? Reiterates the importance of knowing exactly who your target audience is to be able to formulate a message that fits his/her needs
- How will the product be positioned? - Discusses the need to immediately grab the attention of the target audience
- What's the message? – Identifies the specific message or messages
- What channel to use? - Stresses the importance of selecting the right medium to reach the target audience
- What are your available resources? - Determines available IEC resources (such as manpower, IEC materials, IEC equipment, budget), what else are needed and how to get these. Part of this discussion is knowing your key allies.
- Who are the contrabidas? - Identifies the current or potential "opponents" of CRM efforts.

IV. Workshop on Preparation of FLUP IEC materials

Stakeholders Analysis for Forest Land Use Planning

I.   Introduction to Stakeholders Analysis

A. Definition - Stakeholders Analysis is a systematic process of identifying the key individuals, groups, organizations and sectors whose needs and interests need to be considered in preparing different plans, and in the implementation of projects and programs.

B. Objectives
1. To identify those who will be affected by FLUP and identify their interests in forest and forest lands
2. To gain understanding of the relationships among stakeholders
3. To identify actual and potential conflicts
4. To develop strategies for gaining support and reducing obstacles

C. Benefits of doing stakeholders analysis
1. Identification of stakeholders who need to participate in FLUP process
2. Anticipation of actual and potential conflicts

      3. Better understanding of stakeholders needs and interests
      4. Provides inputs in developing strategies

    D. Outputs of SA
      1. Potential stakeholders with corresponding interests/ impacts of FLUP
      2. List of priority stakeholders
      3. Potential strategies to gain support & reduce obstacles

II. Steps in Conducting Stakeholders Analysis

    A. Develop a stakeholders' analysis matrix

    B. Identify the stakeholders

    C. Identify the specific interests of stakeholders – Focus questions:

    D. Prioritize stakeholders by determining their importance to the success of FLUP
      1. Primary stakeholders
      2. Secondary stakeholders
      3. Tertiary Stakeholders

    E. Formulate IEC/ Negotiation strategies – Focus questions:
      1. What kind of information will they need?
      2. What IEC and advocacy actions/strategies are needed to get them interested in achieving the objective of preparing the municipal forest land use plan?
      3. Are there other groups or individuals that might influence the stakeholder to support the FLUP process?

FLUP Profiling: Participatory Rural Appraisal (PRA)

I. Review of the FLUP Process

II. Rationale for community profiling: Planners and implementors need reliable information in FLUP formulation

    Types of information collected in community profiling:
      1. What natural and human resources are available
      2. How are these used and managed by what groups
      3. Resource management mechanisms
      4. Nature of relationships between resource users, resources and markets
      5. Problems and opportunities

III. Community profiling through PRA

    A. What is PRA? - A technique in data collection designed to encourage maximum community participation in data gathering, analysis and use.
      - Data gathering activities are viewed as opportunities for awareness raising and community mobilization

    B. Characteristics of PRA?
      1. Done in a short period of time – 3 to 6 weeks
      2. Multi-disciplinary– involves forester, social scientist, agriculturist, business, etc.
      3. Uses participatory techniques in gathering data – key informant interview, focus group discussion, community mapping

    C. Some guiding principles in PRA
      1. Type of information used in decision making must be prioritized
      2. Local knowledge constitute a valuable development resource. This must be accessed by gathering data as close to the source as possible

3. The municipality must be viewed as an integral part of a micro-watershed
4. The planning area encompasses both the land, the social groups using or depending on the land and the forest resources thereon

D. Stages in PRA
1. Preparatory and secondary data gathering - Secure maps, review records & documents, contact GO/NGO workers with experience in the site, make data checklist, schedule fieldwork, arrange field accommodation, transport, & other logistics, administrative arrangements
2. Primary data gathering - Courtesy call on barangay officials, finalize field schedules, walkthrough, sketch/ community mapping, transect mapping, identify key informants, semi-structured interviewing, focus group discussion note taking, copying records, organizing/ consolidating data, check data gaps, feed backing
3. Report writing - Finalize maps, charts,& other conceptual aids, formulate preliminary recommendations, draft report, review/ validate report, report revision

E. Primary data gathering techniques: Key informant interview and focus group discussion
1. Key informant interview (KII)
   a. Key informants - Persons who either have a broad knowledge of the community & its concerns or has more specialized knowledge on a subject than others
   b. Uses of KII
      - To gain more insights on specific subject or highly complex subject matter
      - Identification of issues for community survey
      - Identification of sectors that should be involved in planning
      - Evaluation of proposed solutions to community problems
   c. Advantages of KII
      - Quick insights on specific subject or highly complex subject matters
      - Need for highly sensitive data or when peer pressure may influence respondents answer in a group
      - Relatively inexpensive
   d. Disadvantages of KII - KIs may represent only personal and local interests and not of the general population
   e. Interviewing with key informants
      - One-on-one Interview
      - Use of topic guide and open ended questionnaire
      - Use of probing technique
2. Focus Group Discussion (FGD) - A data gathering technique where a group of participants are asked to meet to discuss specific topics
   a. Group composition/ selection
      - Socio-economic class, consider:
      - Type of resource user (fisher folk, farmers, hunters)
      - Level of expertise
      - Cultural/ ethnic differences
   b. Advantages of FGD
      - Group dynamics stimulate richer responses and allow new information to emerge
      - Can be done separately/ repeatedly where there is felt difference among the various groups
      - Can be completed more quickly and
      - Generally less expensive
   c. Disadvantages of using FGD
      - Requires high level of skills in managing groups
      - Generally difficult and time consuming task (transcription, reorganization, compilation, evaluation, and data analysis
   d. Uses of FGD
      - For gathering sectoral information
      - Assessing potential impacts of a development/ activity on specific sector
      - Evaluating community program
      - Identification of different groups to be involved in planning

e. Conducting FGD
- Selection of participants – requires that diverse views be represented
- Participants are asked to meet and discuss specific topics
- Use of topic guides and open-ended questionnaire
- Use of probing technique

Profiling IP Communities

I. Purpose of IP Profiling

A. To identify those variables that will need careful consideration during the situational analysis
B. To enable the FLUP TWG to identify and gather the information necessary to understand the indigenous people in an Ecogov project site

II. Sources of information:

A. Ethnographies and other secondary data
B. Ethnolinguistic Maps
C. LGU profiles
D. Site visits
E. Liaison with NCIP and relevant local organizations
F. Liaison with anthropologists and NGOs who have done work in the area

III. Contents of the Profile

A. <u>Location and Identification of IPs – To locate and identify IPs, the following are needed:</u>
1. Ethnolinguistic maps indicating the location and distribution of IPs
   a. Philippine Culture and Ecosystems Map (1998) produced by Environmental Science for Social Change (ESSC).
   b. Map by the National Council of Churches in the Philippines (NCCP) and the People's Action for Cultural Ties (PACT) (1983).
   c. Language map published by the Summer Institute of Linguistics (1999).
2. Ethnographies of indigenous peoples
3. Ancestral Domain Claim (CADC) and Certificate of Ancestral Land Claim (CALC) maps at the National Commission on Indigenous People's office (NCIP).
4. In the absence of CADC, CALC, CADT & CALT maps, the IPs should be asked to delineate their ancestral domains

B. Demographic data – IP population, households, population density, age-sex distribution and rate of growth.

   Sources of data are:
   1. NSO
   2. NCIP
   3. ADSDPP of CADC/CADT holders
   4. NGOs and researchers working in areas occupied by IPs.
   5. Donor agencies/ funding agencies
   6. Anthropological researchers
   7. LGU records
C. Social structure, land and resource uses - patterns of social and political organization including the forms of family, kinship and marriage, traditional leaders, IP organizations

   Sources of data are:
   1. Case studies
   2. Participatory Rapid Appraisal (key informant, FGDs, questionnaires, observations)
   3. Thematic mapping /Community mapping

4. Surveys
5. Other reports from government and non-government agencies

Mapping for Forest Land Use Planning

I.   Objectives

A. To review basic cartographic principles and relating it to mapping in the Philippines
B. To develop ability to read and use topographic map properly
C. To level-off on the FLUP mapping requirements and standards
D. To produce basic thematic maps (i.e. base map, administrative map, watershed and drainage map for each LGU
E. To develop clear understanding of the concept of watersheds and how to properly delineate them on map
F. To develop skills in performing map analysis and overlays

II. Concepts and Principles of Cartography

A. Definition of a map and cartography
B. Function of Maps
C. Characteristics of Maps
D. Projecting the Earth on a Flat Surface
E. Projections Used in the Philippines
F. Coordinate System
G. Representing the Real World
H. Fundamental Properties of Geographic Objects
I. Classification and Characteristics of Maps
J. Sources of Spatial Data
K. Map reading exercise

III. Maps

A. Definition: representation of the spherical world on a flat surface
B. Function of Maps
   1. Reduces the landscape to bring things to view
   2. Allows us to understand configuration and structural relationship things in our landscape
C. Characteristics of Maps
   1. Gives location
   2. Attributes at locations
   3. Are reductions
   4. Transformation of the true surface
   5. Abstractions of reality
D. Projecting the Earth on a Flat Surface
   1. Map projections allow areas on the surface of the Earth to be represented on a map
   2. Developable surfaces – cone and cylinder
   3. Projections affect both aesthetic and geometric qualities
E. Common Projections Used in the Philippines
   1. Transverse mercator
   2. Polyconic projection
   3. Coordinate systems
      a. Reference frame used in assigning a unique identification for each point in a given space
      b. Global and local coordinate systems
         b.1. Longitude and latitude
      c. Universal Transverse Mercator (UTM)
         c.1. Units of measurement in meters
         c.2. World divided into 60 zones
         c.3. Philippines in zone 51 and 50

            d.   Philippine Transverse Mercator
                d.1. Units of measurements in meters
                d.2. Philippines divided into 5 zones
            e.   Zip Code
            f.   Public Land Rectangular Surveys

F.   Representing the World on the Flat Surface
    1.   Involves processes
    2.   Type of information in a map
        a.   spatial information
        b.   descriptive information
    3.   Real features represented by
        a.   Points
        b.   Line
        c.   Area or polygon
        d.   Topology or spatial relationship

G. Fundamental Properties of Geographic Objectes
    1.   Size
    2.   Distribution
    3.   Pattern and orientation
    4.   Shape
    5.   Scale

H. Classification and Characteristics of Maps
    1.   General map
    2.   Thematic map
    3.   Analytical map

I.   Sources of Spatial Data
    1.   Remotely sensed data
    2.   Community mapping
    3.   Ground survey

J.   Elements of a Map
    1.   Map title
    2.   Coverage of map
    3.   Legend
    4.   Map orientation
    5.   Technical information
    6.   References or data sources
    7.   Publisher or maker of map

K. Topographic Maps and Its Characteristics
    1.   All points on any one contour line have the same elevation
    2.   Every contour closes on itself
    3.   Cannot close on one another except where an overhang or cliff, a vertical ledge or a wall is represented on a map
    4.   Irregular contour lines signify rough, rugged terrain
    5.   Horizontal distance between adjacent contour lines indicates steepness of slope
    6.   Ridgelines
    7.   Drainage lines
    8.   Thematic maps
    9.   Map overlay analysis

Module 3
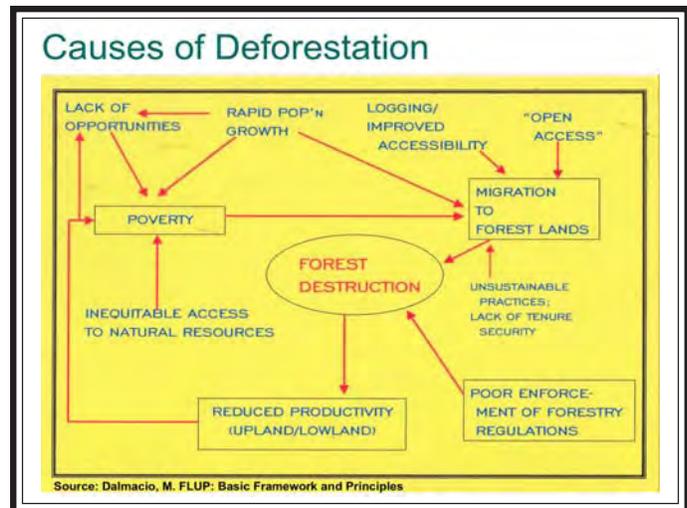## Situational Analysis

Module Coverage

Analysis of the data and maps gathered as baseline information is the next critical step in forest planning since this determines the succeeding course of action in coming up with an FLUP.

This module introduces the participants to the essence of conducting the situational analysis (see **Annex 3** for **Suggested Guide**). It provides the step-by-step guide in evaluating the existing condition of the municipality's forests and forest lands through map overlay analysis, simplified simulation techniques and other tools. The analysis is based on the validated socio-economic and cultural information, and corrected/updated thematic maps. Also a primary objective of the module is the sharing and validation of initial findings with key stakeholders, particularly the Municipal Development Council (MDC) members, selected community and Indigenous People (IP) groups and members of Sangguniang Bayan (SB).

In layman's terms, the situational analysis is a tool in identifying issues and generating preliminary recommendations based on analyzed data. It is considered a transition step to the planning phase where various stakeholders use the processed data are used as basis for decision-making.

Specifically, the module aims to:

1) Discuss the overall purpose, direction and use of situational analysis using updated socio-economic, cultural information and revised/corrected thematic maps;
2) Generate applicable and relevant derived and composite maps through overlay analysis;
3) Provide an over-all picture of current conditions and recent trends in forests and forest lands;
4) Provide a more detailed analysis of forests and forest lands using watershed as a planning unit;
5) Generate data to be used in participatory allocation of sub-watersheds and sub-watersheds prioritization;
6) Identify stakeholders who should be involved in allocation and sub-watershed prioritization decision-making and plan implementation;
7) Identify conflicting interests and claims among stakeholders and facilitate conflict resolution;
8) Provide inputs to the IEC/advocacy and capability building components of the FLUP;
9) To identify capability building interventions for the effective implementation of FLUP;
10) Provide inputs to the development of the implementation support of the plan; and
11) Prepare a situational analysis of municipal forests and forestlands and validate/disseminate the initial findings with key stakeholders, specifically, members of MDCs, selected community and IP groups and SB members.

The module involves a four-day formal session with coaching workshop and field validation exercises. The practicum, which involves generating composite maps, analytical tables and graphs and drafting of the situational analysis report will last for about a month.

Expected Module Outputs

By the end of the module, a draft situational analysis should have been completed using the updated socio-economic and cultural information, map overlays and consultations/validations with key stakeholders. Tables, charts, thematic maps, derived and composite maps as well as documentation of formal session, coaching workshop and validation activities are included in the report. .

Module Approach

The formal training session provides a venue for the participants to be assisted in the analysis of the socio-economic, demographic-institutional environment. Situation of forests and forest lands is, first, presented to the participants using socio-economic data. Stakeholders are then, oriented on data analysis guidelines.

A demonstration and hands-on exercise on map overlay analysis using actual maps are also facilitated to familiarize the participants with the process and enable them to carry out practicum tasks. A guide on criteria to be used, maps to overlay, result interpretation and derived and composite map variables is distributed to the participants. The session then, concentrates on manual map overlay and socio-economic data analyses. Initial findings, issues and data gaps are synthesized. This is followed by issue prioritization and detailing of proposed recommendations.

The practicum sessions allows the APs, LSPs and LGU TWG in refining their data analysis and addressing data gaps identified. The manual map overlay analysis is also completed using their own criteria and procedures agreed upon in the session. It is expected that the session produces data tables, charts, derived/composite maps that will describe current situation of LGU's forestlands, e.g., extent of open areas; allocated areas which are improperly managed; settlements in upland areas; resource use conflict areas; and other conflict areas.

It is a must that the Uplands Specialist and GIS Associate check on the correctness of procedures used and quality of data and maps produced. The results of the analysis are, then, synthesized. The summary highlights the key features of each sub-watershed within the LGU territory and the boundary and resource use conflicts (per watershed).

Participants

Participants include members of the TWG.

Conducting Situational Analysis for FLUPlanning

I. Introduction

    A. Objectives
        1. Assess current situations to determine threats to and opportunities for development of forest lands
        2. Identify current & planned developments in the LGU that would impact on the forest resources
        3. Identify stakeholders and analyze relationships among them
        4. Assess capabilities of the LGU and DENR in carrying out forest lands management.
        5. Analyze sub-watersheds as basis for prioritization
    B. Focus of situational analysis - organize collected data and maps in order to show significant characteristics, patterns or trends
    C. Ways of showing trends and patterns
        1. Space patterns
        2. Temporal trends
        3. Flow patterns

II. Data Presentation to Show Trends and Patterns

    A. Textual – written in paragraph form, uses statistical parameters such as means, range, percentages, frequency to highlight trends
    B. Tabular – data are presented in rows and columns
    C. Graphical or visual presentation – uses graphs, charts, maps, diagrams
    D. Examples of the different modes of data presentation showing trends in forest cover loss. In general, a combination of textual, tabular and visual presentation is used in FLUP.

III. Major Outputs of FLUP Situational Analysis

    A. Brief municipal profile
        1. Bio-Physical Profile
            ● Location and land area
            ● Land classification
            ● Watershed and Drainage system
            ● Topography and slope
            ● Recent Land cover
            ● Existing and potential production & protection forests
        2. Socio-economic and cultural profile
            ● Political subdivisions and settlements
            ● Demography (Population, gender & ethnic composition)
            ● Economic activities – resource uses and users
            ● Infrastructures – irrigation, domestic water, roads, bridges, etc.
            ● Land allocations – CBFMAs, CADC, IFMA, protected areas
            ● Institutional capabilities of LGU & DENR
            ● Key Stakeholders – Prepare a stakeholders matrix and generate a matrix showing potential conflicts in interests and mandates as well as potential areas of collaboration among stakeholders.
   B. General trends and patterns in FFL resources of the LGU & its socio-economic & cultural conditions

        1. Population trends – growth rates and migration for at least 2 periods
        2. Forest cover changes – Changes in areas of forests, grasslands/brushlands & other land cover for at least 2 time periods. Causes of changes
        3. Trends in agricultural production, service areas of irrigation systems
        4. LGU- IRA the last 5 years
        5. Annual DENR-LGU budgets on FFM
        6. Other relevant trends

C. Identified problems, issues, threats and opportunities for management and development of forests and forest lands
 1. Issues/Problems/Threats
   a. Declining natural forests
     - Forest cover changes
     - Hotspots
     - Unmanaged open access
     - Unregulated upland settlement/migration
     - Unregulated resource use
     - Easy access
   b. Declining agricultural productivity/Impaired hydrology
     - Reduced irrigation
     - Watershed degradation
   c. Boundary Conflicts
   d. Conflicting land claims
   e. Inadequate local capacity and institutional arrangements for management of forestlands
   f. Others
 2. Opportunities for improved forest management
   a. Potentials for tree plantations, orchards and agro-forestry per sub-watershed
   b. Eco-tourism potentials
   c. Potential CBFM holders
   d. Interested investors in FFM
   e. Other opportunities
D. Comparative sub-watershed analysis
 1. Bio-diversity value by watershed
 2. Hydrological Services
 3. Economic Value by sub-watershed
 4. Protection potential to infrastructures
 5. Protection of lives and properties
 6. Eco-tourism/Aesthetic value
 7. Extent of threats to FFL resources by sub-watershed
E. Examples of tabular data showing comparisons of sub-watersheds as basis for prioritization

Map Overlay Analysis

I.   Introduction – Focus of thematic mapping and map overlay analysis are to determine what resources are there and where are these resources located?

II. Map overlay analysis - Literally laying one map over the other in order to see relationships of one data to another

III. Procedures for map overlay

    A. Define your objectives
    B. Prepare necessary thematic maps
    C. Eliminate themes which are not needed
    D. Delineate needed themes
    E. Finalize derived maps

IV. Demonstration and exercises in map overlaying

    A. Identification of "Open Access Areas"
       1. Objective: Identification of forestlands not allocated or have not been awarded for tenure
       2. Criteria: Forestlands without tenure or allocation
       3. Thematic maps needed:
          3.a. land classification map
          3.b. land tenure map
       4. Draw the area or polygon that are "open access"
    B. Characterizing "Open Access Areas"
       1. Objective: Access areas with forest cover
       2. Maps needed
          2.a. Open access area map
          2.b. Vegetation map
       3. Delineate areas with remaining forest cover
       4. Estimate % of open access area with forest cover
    C. Characterizing "Open Access" Areas
       1. Objective: Describe the slope distribution of open access area
       2. Maps needed
          2.a. open access area map
          2.b. slope map
       3. Estimate how much of open access will be considered for protection (those that are above 50% slope)

V.   Map Derivation matrix for FLUP – The different maps to be derived in forest land use planning, the thematic maps needed for generating the derived maps and their uses are discussed.
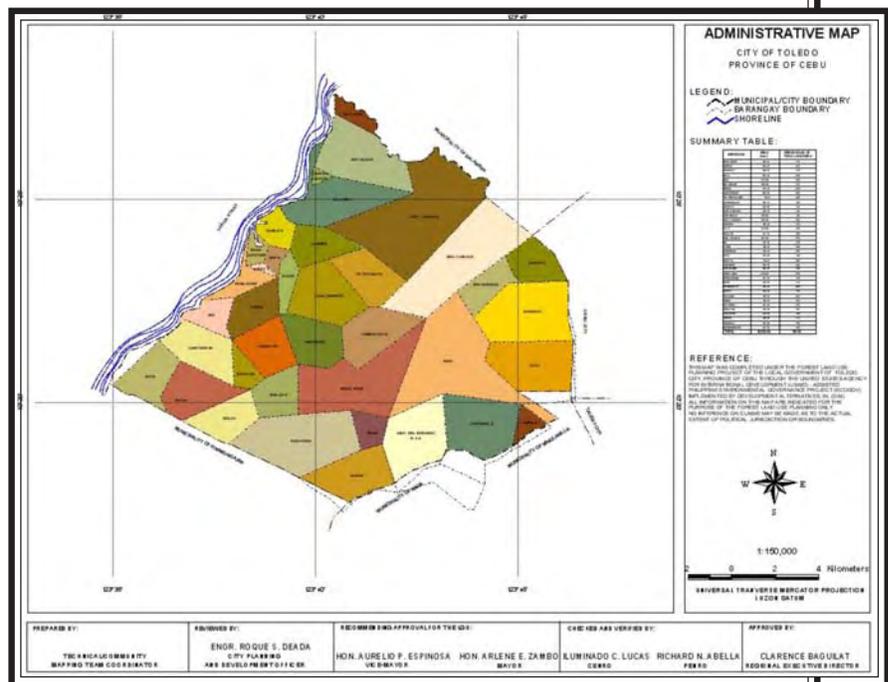
Module 4
Cross Visit and Exposure Trip

Module Coverage

Firsthand observations and discussions on successful forest management activities are useful in increasing appreciation of relevant and doable courses of actions. This demonstrates the importance of good governance processes in planning, allocating and managing forests and forest lands. It aims to incorporate the TAP processes into the development and implementation of the FLUP based on the experiences of other LGUs, which have formulated, validated, legitimized and implemented FLUPs.

It also facilitates broader understanding of the need for pro-active engagement of LGUs in forest lands management. In addition, it explores positive implications of planning and implementing co-management agreements between and among DENR, LGUs and communities. Observations and lessons learned on best practices in forest/watershed management from this module are used as inputs to subsequent FLUP activities.

Seven days are allotted for the cross visits and exposure trips. Observations and learning should be recorded to serve as reference for future decision-making.

Expected Module Outputs

The participants are required to come up with a documentation report (see **Annex 4, Sample Daily Documentation Report**) containing all lessons learned. The report may also contain photos of the sites visited as well as the team's recommendations, if there are any that the team has formulated right after the cross visit. The participants should also prepare re-entry/activity plans to effect the echoing of the lessons learned from the activity.

Module Approach

This module provides opportunity for LGUs to observe and learn from other LGUs that have initiated and championed the campaign for good environmental management.

During the exposure trip, the host LGU/Project Management provides an orientation/overview of their environmental project particularly on its rationale, TAP processes followed, public/private investments, project status, management organization, M & E system and key lessons learned in project implementation.

Cordial exchanges of ideas, experiences and observations between and among the participants and hosts follow the presentation. The use of audio-visual and other printed materials in aid of sharing ideas, information and lessons learned among visiting and host teams to enhance the learning process is encouraged. This is supplemented by an actual visit to the project sites so that the participants will have an opportunity to directly observe field activities, interact with local communities and synthesize learning that may work in their respective municipalities

Prior to departure from the site visited, participants are given orientation/ briefing and forms for documentation and other training materials. Small groups are also formed to facilitate group management responsibility and accountability. Leaders, rapporteurs/secretaries are selected to manage the small groups' activities. Daily reflection sessions and group observations synthesis are organized before the end of the day.

In this activity, the participants are given time to share their observations and the lessons learned from every site visited. The rapporteurs' documentation is collected every after the reflection sessions for synthesis. A post-training evaluation session is facilitated after all the sites had been visited to synthesize all lessons learned into one document to be distributed among the LGUs concerned. The post-training evaluation is also administered to gather information that can be used by the facilitator to identify areas for improvement in conducting similar activity in the future.

Prior to the actual trip, preparatory activities must be carried out. It is very important that the following are not missed in the activity: Site selection, sending prior notice and making arrangements to host agencies, and follow through activities.

Site selection

Basically, the site selection process is done ahead of time to weigh the merits each site has in relation to the needs of visiting participants. This way, the transfer of learning process becomes facilitative. The site selection process also considers the relevance of the environmental projects to be visited and its replicability to the specific LGU. These considerations will encourage the visiting LGUs to replicate good environmental governance practices in the management of their FFL. Similarity of site characteristics can also motivate the LGUs to respond and act in the call for environmental development, management and protection.

Prior notice and arrangements

Advance notice and arrangements provide the host teams prior information on the interests of the visiting teams. This way, the host teams can make necessary preparations better and ahead of time. Likewise, the host team, given the advance information, could ensure smooth flow of activities within the site. On the other hand, the visiting groups can also have a better idea of what to expect and what to prepare in respect to the site conditions and the host teams. Responsibility-sharing is mutually arranged between the visiting and the host teams in this activity.

Process documentation

Aside from the documentation undertaken by the facilitator, a documentation report is also required from the group. Each small group is required to submit their synthesized documentation reports (documentation from the first day up to the last day of the activity). If the the LGU has several groups, all groups are required to submit the integrated synthesized documentation report.

Photo documentation, briefing materials, and other informative materials related to the sites visited are requested from host teams whenever available. Forms for documentation are also distributed among the participants.

Participants

Local government officials from the Office of the Mayor, the local policymakers, DENR, other local government unit heads and staff and members of the multi-sectoral municipal TWG are given the opportunity to participate in an exposure trip to various LGU-led good environmental management initiatives and practices.

Lecture Notes

While the training does not necessarily require lecture notes, it is important that the participants are provided with a copy of the activity design and a briefing kit of the areas to be visited. The briefing kit must contain the information that provides guidance to the participants on the following:

1. Daily schedule of activities
2. List of project sites to be visited with brief information on the peculiar characteristics of the project sites (if available)
3. List of contact persons
4. Forms for documentation and other training kit
5. Other travel guidelines

To facilitate the reflection sessions, the participants are guided with a site documentation form to be filled up while doing the observations and having discussions with the host agencies/groups. This is also used in the synthesis of the groups' learnings and observations from each project site.

Module 5

Participatory Process in Planning the Allocation of Forests and Forest Lands and Prioritizing Sub-Watersheds

Module Coverage

The participatory approach in the planning process cannot be understated. Increasing involvement of key upland stakeholders is one concrete application of good governance in sustainable forestry management since it creates an equitable environment where various interests of different stakeholders are considered in maximizing benefits from use of forest areas.

The module on Participatory Process in Planning the Allocation of Forests and Forest Lands and Prioritizing Sub-Watersheds is designed as a training and simulation exercise for the MFLUP Team. Primarily, the module orients the FLUP-TWG on policies related to allocation of forests and forest lands and, relevant set of criteria for allocating forests and forest lands and prioritizing sub-watersheds. It lays-out actual consensus-building activities and planning for the allocation of forests and forest lands. It assists LGUs on identifying and agreeing on quantitative and qualitative criteria for allocating and prioritizing sub-watersheds within the municipality. The module exercises, also, facilitate generation of preliminary recommendations for the allocation of forests and forest lands. The module, furthermore, walks the participants through potential problem analysis that equips them in forecasting and acting on issues and concerns which may arise. Finally, the module is directed at developing a plan and strategy for validation of the module's outputs.

Specifically, the module has the following objectives:

1) to discuss the results of the situational analysis including actual and emerging issues/conflicts in the forests and forest lands management;
2) to formulate stakeholders' vision for forests and forestlands to be later discussed with barangays, SB members, NGOs, community leaders, DENR, private sector, religious groups, etc.;
3) to conduct a preliminary prioritization of sub-watersheds based on agreed criteria;
4) to examine various options/strategies which may be adopted by DENR, LGUs, communities and other stakeholders in closing open access forests and forestlands and to come-up with preliminary forestlands allocation;
5) to identify and discuss potential strategies on how to protect, develop and manage priority sub-watersheds, and open access forests and forestlands; and
6) to develop an action plan in carrying-out validation of the situation analysis, issues, vision, prioritized sub-watersheds, options for closing open access and, protecting and managing sub-watersheds.

Expected Module Outputs

The three-day module is expected to produce the following outputs: set of criteria for generating preliminary but recommendatory allocation and management plan of forests and forest lands; set of criteria for prioritizing sub-watersheds; and initial allocation plan for the forests and forest lands and prioritization of sub-watersheds based on the agreed sets of criteria.

Module Approach

The module starts with a review of past FLUP activities conducted in the municipality where focus is given on identifying TAP mechanisms used in the process. Key findings in the situational analysis are, then, presented with highlights on illegal cutting, forestland conversion, boundary and resource conflicts and other problems determined in the situational analysis. A visioning exercise using TOP is then, facilitated.

Discussions center on allocation and tenure instruments. Emphasis is given on policy considerations in the allocation of forests and forestlands. A guide in the allocation of forests and forest lands (see **Lecture Notes**, p. 35), using biodiversity, bio-physical and socio-cultural criteria, is presented to the group. A workshop on the application of allocation concepts follows. Strategies and recommendations on the following issues are discussed by the group:

1) improving management of currently allocated forests and forest lands;
2) allocating forest lands with existing/conflicting claims;
3) allocating forest lands with existing claim but without conflicts; and
4) allocating forest lands without claims.

The workshop moves on to prioritization of sub-watersheds for investments. The groups is, however, first, oriented on rationale for prioritization of sub-watersheds, how to prioritize and criteria for prioritizing sub-watersheds. Workshop is conducted on the application of criteria for prioritizing sub-watersheds.

In addition to these, discussion on IEC/advocacy inputs is facilitated with consideration of results of stakeholder analysis, synthesis of issues, FLUP legitimization process and advocacy needs. The activity ends with tasking/action planning on the drafting of the MFLUP, and the conduct of multi-sectoral and expanded stakeholders' consultation and advocacy work

Participants

Participants to the module include LGU TWG members, indigenous group representatives, private sector representatives, NCIP representatives and, DENR, PENRO and CENRO representatives.

Categories of Allocation and Tenure Instruments in Forests and Forestlands

I. Introduction

    A. Previous discussions: Laying the FLUP Foundations
    B. Key questions in this topic
    C. Some concepts on governance of FFM as assets

II. Who is responsible for public forests and forest lands?

III.. Basis of the State in protecting and managing FFL assets through other stakeholders

    A. Existing national policies for the allocation and management of forestlands to achieve different objectives:
        1. Conservation of biodiversity - PPs, RAs
        2. Conservation of FFL capacity to provide environmental services– PPs, EOs, RAs
        3. Production of food, forest products **–** IFMA, SIFMA, FLA, PLA
        4. Production of agroforestry products **–** CBFMA, CSC
        5. Protection of prior rights and cultural heritage via ancestral domains – RA, CADTs, CADCs, PPs
        6. Economic justice/poverty alleviation – PP (MNLF)
        7. Research/academic –RA, PP (Mt. Makiling)
        8. Ecotourism/industrial use – PP or EO
        9. Settlements/poverty/equity – RA, PP, EO (CARP)
    B. Occupancy and indigenous claims -including the physical presence of sitios and barangays in and near forestlands, social displacements, etc.
    C. Bio-physical considerations – agroclimatic conditions, slope, elevation, forest cover, environmental impacts on downstream communities, shared ecosystems, biodiversity indices
    D. Organizational and institutional capacity – Vision, purpose, organization, funding, staff, internal control systems, feedback and monitoring system, accountability, e.g., co-management
    E. External factors that will affect FFL Allocation

IV. Possible Landscape of Objectives in Managing FFL

V. Key Concepts in the Allocation and Management of FFL

    A. Defining the issues
    B. Allocation and management of FFL is indispensable
    C. Nature of FFL allocation
    D. Bottom lines in FFL allocation
    E. Potential conflicts in the allocation and management of FFL

VI. General Categories of Forest lands Allocation and Management

    A. Allocation by the State for purposes of meeting public goods ("set asides")– protected areas and watersheds
    B. Allocation to other government agencies – PNOC, universities, NPC, NIA, military, Economic Zones
    C. Allocation to LGUs – communal forests and watersheds, co-management
    D. Allocation to communities – CBFMAs, CADCs/CADTs
    E. Allocation to the private sector – IFMA, SIFMA, SPLUMA, FLA, foreshore lease, PLA, etc.
    F. Existing Forestlands Allocations at the national level by accountability center
    G. Total economic value of selected tenurial arrangements in the Philippines

VII. Property Rights

    A.   The Concept of Property Rights
        1.   Property rights (PR) – "access to a stream of benefits from a given set of resources"; "bundles of entitlements defining the owner's privileges and limitations in use, transfer, bequest, or disposal of property".
        2.   PR is fundamental to understanding the impact of the economic system on resource use and environmental quality.
        3.   Property rights are crucial in protecting and managing FFL as assets
        4.   PR establishes relationships among participants in any social and economic system e.g.DENR, LGU, communities or private sector
        5.   Holding PR is an expression of the relative power of the tenure or allocation holder
        6.   Holding PR commands certain responses by others that are enforced by the community or culture.
        7.   Enforced PR guarantees benefits to the owner from good stewardship i.e. improvement of asset values over time, e.g. incentives for investment for improving the value of asset.
    B.   What are these bundle of property rights?
        1.   Use right – the right to derive benefit from the asset
        2.   Management right – the right to decide who shall be permitted to use the asset and under which conditions
        3.   Income right – the right to derive income from the use of the resource
        4.   Capital right – the right to consume, destroy and transform the asset
        5.   Transfer right – the right to sell, give away
    C.   Applicable property rights in FFL
        1.   Open access – (Parts of forestlands which have not been allocated for a certain use or tenure arrangement or allocated forestlands which are "abandoned" or not managed in accordance with agreed uses or management plans by the current holders of tenure/allocation instruments). No governance and everyone can use and take part in the benefit streams of FFL. This will result in uncontrolled use that can destroy the asset.
        2.   Closed access – joint ownership of FFL providing control, limit, access, define rules, etc. Areas under co-management agreements, CBFMAs, IFMAs, etc.
        3.   State management – governmental managers making decisions and rules about access, use, etc. Protected areas, watershed reservations, games and wildlife reserve, parks, etc

Guides to Allocating Forests and Forest Lands

I.   Review of Past Modules and Presentation of Situational Analysis Report

II.   Rationale for Allocating FFL

    A.   Allocation of forests and forestlands to resource managers for effective and responsible on-site management; management includes protection, development, rehabilitation, production and harvesting, and other technically forest management activities
    B.   Allocation of FFL provides the ultimate enforcement mechanism as resource managers exercise rights and privileges over forests and forestlands assigned to them

III.   Some Concepts on Allocation

    A.   Allocation is the heart and soul of governance in the forestry sector
    B.   Allocation is always a socio-eco-political decision
    C.   Allocation should be anchored on accurate and equally accessible information, participatory processes, transparency and accountability, sound technical analysis and carefully studied predicted effects of each choice or decision
    D.   Allocation invites conflicts among and within stakeholders
    E.   Allocation implies assignment of responsibility, accountability and authority for the protection, development, management of forests and forestlands
    F.   Allocation implies "exclusivity", rights, privileges, restrictions of access

IV. Basis for Allocating FFL

V. Maps Needed in the Allocation Process

    A. Land classification
    B. Tenure and open access areas
    C. Forest cover
    D. Slope and elevation
    E. Settlements
    F. Hazards map
    G. Hotspots
    H. Infrastructure map

VI. Key Steps in Allocating FFL

    A. Define critical allocation <u>decision areas</u> in forestlands and indicate location in maps.
    1. Unallocated forestlands with conflicting claims
    2. Unallocated forestlands with claims
    3. Unallocated forestlands without claims
    4. Tenured forestlands without effective management
    B. Examine each decision area. Describe the problem, identify and evaluate options and make recommendations. The discussions and agreed recommendations should be well documented.
        1. Tenured but Unmanaged Forestlands
        Discussion Questions:
        a. What is the existing tenure, who is the current tenure holder, when is existing tenure instrument expiring?
        b. Why is the area considered "unmanaged"?
        c. What are options to put the area under effective management? What are advantages and disadvantages of each option? In evaluating the options check the bio-physical features of the area.
            • maintain current tenure holder
            • consider alternative tenure arrangements
        d. What measures should be taken to ensure effective management of area?
        e. Reflect preferred option in the map.
        2. Unallocated but w/ conflicting claims
        Discussion Questions
        a. Who are the claimants? What is basis of their claims? What is status of their claims?
        b. What are options to resolve conflicting claims and to put the area under effective management? What are advantages and disadvantages of each option? In evaluating the options check the bio-physical features of the area.
            • allocate to one claimant
            • joint management
            • consider alternative tenure arrangements
        c. What measures should be taken to resolve the conflicting claims and to ensure effective management of area?
        d. Reflect preferred option in the map.
        3. Unallocated but with claims
        Discussion Questions
        a. Who is the claimant? What is basis of the claim? What is status of the claim?
        b. Are there other stakeholders who may be considered/interested? What other options are possible? What are advantages and disadvantages of each option? In evaluating the options check the bio-physical features of the area.
        c. Reflect preferred option for the area in the map.
        4. Unallocated without claims
        Discussion Questions:
        a. Given bio-physical features and location of settlements in area, what are possible tenure arrangements? List the options for specific areas. For example:

- presence of upland communities – potential CBFM
- extensive undulating/moderately sloping areas – potential for plantations through CBFM, IFMA, LGU plantations
  b. Determine extent of each possible tenure arrangement (using physical features and political boundaries as possible boundaries)
  c. Reflect preliminary allocation in a map.
C. Evaluate the preliminary land allocation using the following criteria:
  1. Legal: Is it allocation consistent with existing policies? Are all legal requirements met?
  2. Environmental: Would the identified tenure holders be able to put under effective management the area assigned to them (focus on identified hotspots, critical watersheds and biodiversity areas). Can tenure holder manage existing forests? Is land allocation consistent with set goals for forests and forestlands?
  3. Equity: Does it provide equitable access to natural resources? Were all potential tenure holders considered? Can the proposed tenure allocation effectively address individual property rights issues in the area covered?
  4. Economic: Can the tenure holders invest in the development of the areas? Will the proposed land allocation bring positive economic returns?
  5. Political: is the allocation acceptable to political leaders?
D. Refine and finalize recommendations. Finalize map

Examples of Commonly Issued Tenure Instruments in FFL

I. Involving Communities

A. Community-Based Forest Management Agreement (CBFMA)
  1. Governing policy: EO 263, July 1995; DAO 29 Series of 1996
  2. Period of tenure: 25 years, renewable for another 25 years
  3. Participants: group of at least 10 local Filipino citizens (or an existing PO) residing inside or near forest lands
  4. General Application Requirements
    a. Application submitted to CENRO
    b. Organization and its registration with SEC or Cooperative Development Authority
  5. Rights, Privileges of Tenure Holder
    a. Occupy/use/develop forest lands within designated area
    b. Allocate to members and enforce rights to use and sustainably manage forest land resource
    c. Exemption from paying land rent and forest charges on timber and non-timber products harvested from plantations
    d. Consulted on all government projects in the area, be given preferential access to all available assistance in the area development
    e. Receive income/proceeds from use of forest resources within the area
    f. Enter into contract with private/government entities, allocate/endorse areas to be placed under Certificate of Stewardship Contract
  6. Examples of Allowable Activities
    a. Forest protection
    b. Reforestation
    c. Agro-forestry
    d. Harvesting of non-timber and timber forest products
  7. General Roles and Responsibilities
    a. Tenure holder: prepare/implement plans, including resource use plans; promote transparent and participatory management; pay forest charges
    b. LGU: together with DENR, monitor implementation in the area; provide technical and other assistance
    c. Issuing authority: together with LGU, monitor implementation in the are; provide technical and other assistance

B. Certificate of Ancestral Domain Titles (CADT)
    1. Governing policy: RA 8371, 1997
    2. Period of tenure: Perpetual
    3. Participants: indigenous cultural communities/indigenous people (IPs); non-members of ICC/IP communities concerned
    4. General Application Requirements
        a. Proofs attesting to the possession or occupation of area
        b. Written accounts of ICCs/IPs political structure and institution
        c. Pictures showing long-term occupation
        d. Historical accounts
        e. Survey plans and sketch maps
        f. Anthropological data
        g. Genealogical surveys
        h. Pictures and descriptive histories of traditional communal forests and hunting grounds
        i. Pictures and descriptive histories of traditional landmarks
        j. Write-ups of names and places derived from native dialect of the community
    5. Issuing authority: NCIP
    6. Rights, Privileges of Tenure Holder: Priority rights in harvesting, extraction, development or exploitation of any natural resources with ancestral domains
    7. Example of Allowable Activities
        a. Forest protection
        b. Reforestation
        c. Agro-forestry
        d. Harvesting on non-timber and timber products
    8. General Roles, Responsibilities
        a. Tenure holder: Develop, control and use lands and territories traditionally occupied, owned or used; manage and conserve natural resources within territories; maintain ecological balance; restore denuded areas and observe laws
        b. Issuing authority: With consent and involvement of ICC/IP, initiate delineation of ancestral domain, preparation of perimeter maps, publication of preliminary census and report of investigation on the area covered, issuance and registration of CADT

C. Protected Area Community-Based Resource Management Agreement (PACBRMA)
    1. Governing policy: DAO 2002-02
    2. Period of tenure: 25 years renewable for another 25 years
    3. Participants: Duly organized tenured migrant communities
    4. General Application Requirements
        a. For tenured migrant communities
            a.1. Accomplished application form
            a.2. Certificate of registration
            a.3. List of officers and members certified by PAMB
            a.4. Resolution from PO allowing the filing of the application
        b. For interested IPs
            b.1. Accomplished form
            b.2. NCIP certification
            b.3. List of council elders and names of IPs
            b.4. Proof of consent from council of elders to apply for a PACBRMA
    5. Issuing authority: DENR
    6. Rights, Privileges of Tenure Holder
        a. Allocate entire or portion of the area without creating any vested right
        b. Develop the area allocated
        c. Receive income and proceeds from development of areas
        d. Be informed and consulted on projects to be implemented in the area
    7. Allowable activities
        a. Reforestation
        b. Protection
        c. Sustainable use of forest products inside multiple-use and buffer zones, except any form of logging or timber cutting involving natural forest

8. General Roles, Responsibilities
    a. Tenure holder: Formulation of Community Resource Management Plan
    b. LGU: active part of the PAMB endorsing application; inform DENR of LGU's action on tenure application; and provide technical and other assistance
    c. Issuing authority: PAWB and regional office to undertake periodic monitoring and evaluation of community-based program; PAMB, in coordination with CENRO, monitor compliance with terms and conditions of PACBRMA holder

III. Involving Investors
    A. Integrated Forest Management Agreement (IFMA)
        1. Governing policy: DAO 99-53, 1999
        2. Period of tenure: 25 years, renewable for another 25 years
        3. Participants: Filipino citizens of legal age, technically and financially capable; partnerships, cooperatives or corporations which are either 100% Filipino owned or 60% owned by Filipinos and 40% owned by foreigners, duly registered under Philippine laws
        4. General Application Requirements
            a. Duly accomplished forma with filing fee of P.50/ha and survey fee of P50/ha
            b. For corporations, partnerships or cooperatives: corporation papers duly certified by SEC or CDA; Articles of Incorporation and by-laws duly certified by Board Secretary
            c. Audited financial statements for the last ___ years
            d. Proof of financial and technical capability
            e. Board resolution authorizing any of the officers to file the application in behalf of the corporation, cooperative and/or partnership duly certified by the Board Secretary
        5. Issuing Authroity: DENR Secretary, upon the recommendation of the Forest Management Bureau
        6. Rights, Privileges of Tenure Holder
            a. Develop, manage, protect and utilize a specified area of forest land and its forest resource
            b. Harvest, sell and use planted trees and crops consistent with the principle of sustainable development
        7. Allowable Activities
            a. Reforestation
            b. Forest protection
            c. Harvesting of non-timber and timber products
        8. General Roles, Responsibilities
            a. Tenure holder
                a.1. Conduct delineation and marking on the ground of the perimeter boundaries of IFMA area, including conduct of timber inventory
                a.2. Submit within one year from the date the IFMA was awarded a Comprehensive Development and Management Plan and an initial Environmental Examination (IEE) for issuance of an Environmental Compliance Certificate(ECC)
                a.3. Submit within one year (and every five years thereafter) up to date aerial photos of the entire IFMA area
            b. LGU: Assist in consultation sessions with communities about the delineation of the area for IFMA purposes; endorse delineated areas
            c. Issuing authority
                c.1. Make available to IFMA applicant existing information on the status of land, resources and dependent communities within or adjacent to the IFMA areas
                c.2. Ensure that IFMA holder complies with the conditions agreed upon, assist the IFMA holder
                c.3. Host communities in the development and implementation of mutually beneficial agreements

    B. Socialized Industrial Forest Management Agreement (SIFMA)
        1. Governing policy: DAO 96-24, August 1996
        2. Period of tenure: 25 years, renewable for another 25 years
        3. Participants: Individuals/families who are Filipino citizens, of legal age and preferably residents of the municipality where SIFMA area is located; government employees with consent of their respective heads of agency; and cooperatives and associations whose members are Filipino citizens and residents of the province where the SIFMA site is located

4. General Application Requirements
   a. Interested individuals, cooperatives and associations: appropriate filing fees (depending on the land area applied for, which is a minimum of 1 to a maximum of 500 ha)
   b. Individuals/families: community tax certificates
   c. Cooperatives/associations: certified true copy of the registration with CDA or SEC and list duly elected officers and members and their addresses and resolution (both duly certified by the Board Secretary), indicating the cooperatives's or association's interest in participating in the program
5. Issuing authority: PENRO (from 1 to 10 has); RED (more than 10 t0 500 has)
6. Rights, Privileges of Tenure Holder
   a. Harvest, sell and utilize planted trees and crops except those retained for environmental purposes
   b. Export logs, lumber and other forest products harvested from SIFMA area
   c. Be exempt from forest charges of all plantation products
7. Allowable activities
   a. Reforestation
   b. Forest protection
   c. Harvesting of timber and non-timber products from plantations
8. General Roles, Responsibilities
   a. Tenure holder
      a.1. Rehabilitate open and denuded areas and protect existing natural forest vegetation
      a.2. Plant forest tree species
   b. LGU: together with DENR, endorse validated SIFMA sites and conduct campaign to inform the public about the program
   c. Issuing authority:
      c.1. RED approves applications, issues cancellation orders and approves transfers of SIFMA areas that are more than 10 ha up to 500 has
      c.2. PENRO same as RED for areas up to 10 has; shall a maintain a database of all SIFMAs in the province; evaluate reports submitted by the CENRO
      c.3. CENRO responsible for site identification, processing of SIFMA applications and monitoring and evaluation of program implementation

IV. Involving Local Government Units
   A. Co-Management Agreement
      1. Governing policy: RA 7160; DENR-DILG Joint Memorandum Circular 2003-01, DENR-DILG JMC 98-01
      2. Period of tenure: 25 years, subject for renewal
      3. Participants: individual LGU or cluster of LGUs
      4. General Application Requirements
         a. LGUs interested should signify their interests in co-managing forests and forest lands   to the DENR CENRO
      5. Issuing authority
         a. CENRO: forest areas up to 1000 ha
         b. PENRO: more than 1000 to 5000 ha
         c. RED: more than 5000 to 1500 ha
         d. USEC for Operations: more than 15000 to 30000
         e. Secretary: more than 30000 has
      6. Rights, Privileges of Tenure Holder
         a. Developing, managing, protecting and utilizing a specified area of forest land and its forest resource
         b. Harvest, sell and use planted trees and crops consistent with the principle of sustainable development
      7. Allowable activities
         a. Reforestation
         b. Forest protection
         c. Harvesting of non-timber and timber products
         d. Agro-forestry

8. General Roles, Responsibilities
   a. LGU
      a.1. Provide the necessary funds to make the devolution, partnership and co-management work
      a.2. Approve and enact as ordinance the LGU's forest land use plan
      a.3. Inform DENR of the action taken by the LGU within 15 days from the date of receipt of document from DENR regarding any tenure application within its jurisdiction
   b. Issuing authority
      b.1. Initiate coordination meetings with DILG and LGU
      b.2. Provide technical assistance to LGU
      b.3. Approve LGU's FLUPs
      b.4. Deputize LGU officials as environmental and natural resource officers

Economic Analysis of Allocating Forests and Forest Land

I. Scope
   A. Generate per ha estimates of ECONOMIC VALUE (in present value terms) for
      1. Alternative Land Uses of forest land: Timberland, agroforestry, etc
      2. For forest land under Alternative Land Allocation Instrument IFMA, CBFM, co-management, etc
   B. Explore how TOTAL ECONOMIC VALUATION principle can be applied in FLUP
   C. To use the ECONOMIC VALUE ESTIMATES in land allocation decisions

II. Total Economic Value
   A. Use Value
      1. Direct Use Value
      2. Indirect Use Value
   B. Non-Use Value
      1. Biodiversity
      2. Watershed
      3. Carbon sink
      4. Existence of Preservation Values

III. Benefit Transfer
   A. Definition: Process of using values of environmental goods/services derived elsewhere in the local study site, subject to some adjustments
   B. Adjustments
      1. Adjustment for differences in purchasing power of countries
      2. Adjustment for price differences over time
      3. Adjustment for differences in foreign currency
   C. Benefit Transfer Values for the Philippines
   D. Economic Analysis Framework

IV. Identifying alternative allocation instruments using CBA results
   A. Choosing the mix of Land Use Options – Choose Land uses With Positive NPVs per hectare
   B. Economic analysis of forestry projects - Using per ha NPV per land use…one can reallocate land to various groups and compute for new NPV of the whole project area
   C. Identification of optimal distribution of land to alternative allocation instruments- Choose Option that Maximizes Goal!

V. Some final notes on CBA
   A. CBA answers if use of resources is efficient or not.
   B. But, EFFICIENCY is just one of the concerns of policy makers or resource managers. Other concerns like EQUITY, PROTECTION OF ENDANGERED SPECIES OR CRITICAL SITES, and SOCIAL ISSUES may also be important.
   C. This situation calls for the need to integrate these various concerns and another framework may be needed—MULTI-CRITERIA ANALYSIS.

Prioritizing Sub-Watersheds for Investments

I. Why is There a Need to Prioritize Sub-Watersheds?

II. Prioritizing Sub-Watersheds Using the Delphi Approach
    A. Delphi approach is the process of developing consensus following a democratic process
    B. Why use Delphi or similar approaches in FLUP
        1. Consensus is important and responds to 'participatory approach" based on accessible, sound, and defensible information
        2. Ownership of decisions and actions by all key stakeholders.
        3. As soon as a decision or consensus is reached, members of the group are held accountable on what they have "staked their necks" to as sets of criteria.
        4. By discussing the pros and cons, and implications of a criteria, participants are better informed in a transparent manner.
        5. Each one of us is different and unique, molded and influenced by his/her own background, biases, networks, thinking style, fears, and world view (example).
    C. How could Delphi be used in FLUP
        1. Getting consensus and agreement for a set of criteria in prioritizing sub-watersheds within a municipality.
        2. Getting consensus and agreement for a set of criteria on how forests and forest lands be allocated and managed by different stakeholders.
        3. Applying these criteria by using available information in prioritizing sub-watersheds and recommending allocation and management of forests and forest lands.
        4. Investments in key sub-watersheds - "closing open access", putting on-site management in allocated forests and forest lands, support infrastructures, technical services - DEMAND that "limited financial, human, and logistic resources" be channeled or focused on areas where these could MAKE A DIFFERENCE – in terms of time, impacts, efficiency, and direction.

III. Steps in Watershed Prioritization
    A. Determine and decide on the criteria and indicators for prioritizing sub-watersheds.
        Possible Criteria and indicators are:
        1. Bio-diversity value by watershed
            a. Extent of natural forest cover by sub-watershed by land classification
            b. Presence of rare/ threatened species by watershed
        2. Hydrological Services
            a. Irrigation service areas (hectares) by sub-watershed (within and outside the municipality)
            b. Number and Density of irrigation & domestic water infrastructures by sub-watershed
            c. Number of families benefited by irrigation and domestic water facilities per watershed
            d. Potential for irrigation/power generation
        3. Economic Value by sub-watershed
            a. Extent of agricultural areas per sub-watershed and by land classification
            b. Area of A &D by sub-watershed
            c. Extent of residual forests in production areas
            d. Existing and potential production areas per sub-watershed
        4. Protection potential to infrastructures - number and density of each infrastructure per watershed
        5. Protection of lives and properties
            a. Population and density by sub-watershed by land classification
            b. Settlement density per watershed
        6. Eco-tourism/Aesthetic value - Number of existing and potential sites for tourism and nature-based attraction by sub-watershed
        7. Extent of threat to forestlands and resources by sub-watershed
            a. Rate of forest loss per sub-watershed
            b. Period of forest depletion
            c. Degree of accessibility (road density) per sub-watershed
            d. Migration rate per sub-watershed
            e. No. of hotspot areas and extent per sub-watershed
            f. Extent of unallocated areas per sub-watershed

B. Agree on Weights
   1. Each participants (all major stakeholder groups should be represented) to determine "weights" or measure of degree of importance for each criterion (not to exceed 100 points for all criteria).
   2. Determine the "acceptable weights of each criterion" using average or any democratic process after each participant has expressed the reason for his/her weights.
   3. Determine available information that can be used to "measure" or "estimate" the actual weights or degree of importance of the criterion.
   4. Get the "average" or consensus of weights for all criteria from all participants.
C. Based on existing data sets, assign priority number to each sub-watershed per criterion. Given 8 watersheds, assign a value from 1 to 8 where 8 is the highest priority.
D. Compute the points for each sub-watershed per criterion. Using the formula below:

Point Rank per criteria for the subwatershed = (X/8) x % weight of that criteria

Where:
X= 1 to 8 with 8 the highest.

E. Add the points for each sub-watershed and determine the ranking
F. Review the results and refine the distribution of weights if desired

Module 6

Drafting, Legitimization and Approval of FLUP

Module Coverage

The module on Legitimization and Approval of Forest Land Use Plan provides a venue for a write shop for the joint preparation of the LGU and DENR of draft municipal FLUP. The module provides a venue for integration and organization of FLUP inputs generated in the previous modules according to suggested FLUP outline. It, also, highlights presentation of the Plan with appropriate bodies for its legitimization at the LGU level and approval by DENR. Thus, IEC and advocacy components are included as major inputs of the module in facilitating legitimization and approval of the FLUP. The module, moreover, is designed for drafting and facilitating the Memorandum of Agreement (MOA) signing between DENR and LGU.

Specifically, the objectives of the module are:

1) to prepare draft Forest Land Use Plan document; and
2) to present and discuss draft FLUP to the appropriate bodies and prepare final draft for legitimization and approval.

This module includes the approval of the DENR through the signing of the implementation MOA with the LGU. The MOA should emphasize among other roles and responsibilities of the DENR and the LGU, including joint partnership and resources sharing and complementation for FLUP implementation.

The plan undergoes several layers of review, approval, and legitimization protocols both from the DENR and the LGU. The DENR requires the plan to be presented for en banc review to determine the technical integrity of the data and the recommendations. Completion and integration of comments in the plan will pave the way for the CENRO and PENRO endorsements and eventual approval by the regional Executive Director.

Expected Module Outputs

Outputs of this module include finalized FLUP document with thematic maps, derived and composite maps and other annexes specified in the Plan outline, signed LGU-DENR (NCIP) implementation MOA, documentation of plan presentation to MDC, SB and DENR en banc review, and the ordinance or resolution adopting the plan.

A period of 1-2 months is allotted for completion of the expected outputs of the module: writeshop-3 days; writing of drafts by TWG-LSP sub-teams-2-3 weeks; and mentoring/preparation of presentation materials, actual presentation to SB, MDC and DENR, and revision- 4 weeks.

Module Approach

The module serves as a write shop for TWG members and LSPs as they are oriented on the suggested FLUP outline. Participants are divided into groups where each group is assigned an FLUP section to write on. They are tasked to prepare a detailed outline of the assigned section. The discussion also focuses on identifying data gaps/issues in previous outputs and formulating an action plan towards addressing gaps and issues. A plenary session is scheduled for the group to review recommendations and finalize arrangements (organizational, budgets, M&E) for FLUP implementation. The outputs of the groups are to be integrated by the LSPs.

The consolidated FLUP is then subjected to final review by the FLUP-TWG. A presentation of the FLUP to MDC, SB and DENR (CENRO, PENRO and REFG) is, then, prepared by the groups. Prior to legitimization by the SB, a public hearing is conducted where the draft plan is presented to different stakeholders for consensus on the visions, allocation, prioritization of watersheds and other recommendation in the FLUP. The draft is also reviewed by the EcoGov Regional Uplands Specialist. The latter, too, reviews the draft and presentation to the MDC, SB and DENR.

A series of small presentations and informal discussions with legislative council or head and members of the Environment Committee will also help to increase understanding and appreciation on the plan to facilitate legitimization. Sometimes, the Committee on Environment invites the Chairman of FLUP TWG or the MENRO to present the plan.

Revision and finalization of the plan will be done by the TWG and the LSP in case additional issues and recommendations are discussed during the plan presentation. Another meeting of 1-2 days to review the recommendations and finally inputting them to the final write-up is conducted. This will give time for the team to review the entire plan prior to finalization and eventual packaging. After the finalization of the Plan, the group prepares a draft resolution legitimizing and endorsing the FLUP to DENR.

Participants

Participants to the module are TWG members, LSPs, MDC and the legislative council of concerned municipality.

Lecture Notes

Guides for Writing the Municipal FLUP

I. Background (1-2 pages)
    A. Rationale of the municipal FLUP written in the context of protecting existing forests and ***improving management of forests and forest lands at the LGU level (EMPHASIZE CONTEXT)***
    B. Historical, socio-economic, biophysical, life support systems (watershed), agricultural, industrial, and ***political importance of FFL. (GIVE DEPTH but concise)***
    C. FLUP in the context of the present and future consumption and production of **food,** fiber, and **water, freedom from flooding (**relate this with location and area of FFL in the LGU and its adjoining landscapes). ***FLUP should be perceived to support protecting existing forests and improving forest cover for water, food, fiber production; biodiversity conservation, etc.)***
    D. Discussion on how the plan and its implementation would respond to current problems, issues, needs, and opportunities in LGUs forests and forest lands.

II. LGU's Vision, Mission, and Objectives with respect to its FFL (Ten-Year Planning Horizon)
    A. VMO – A mental picture; a statement of "desired future state of FFL" in the municipality, a condition that does not presently exist and never existed before, i.e., FFL in the context of present socioeconomic and biophysical developments.
        -   This should be written from the perspective of local stakeholders as expressed during consultation meetings, discussions, and FGDs; as being revealed from the LGU history, profiling and analysis, thematic mapping, and overlays; and as agreed and endorsed by LGU leadership.
    B. Vision and Mission
        1. This should clearly state 10-Year vision and mission statements in both long and short versions provoking/eliciting audio-visual response
        2. Examples:
            a. Example: "Highly diverse natural forests providing environmental services and creating opportunities for expanding forest cover."
            b. Example: "Productive fruits, trees, and gardens in every farm and claim in Wao's sub-watersheds."
            c. Example: "No more flashfloods with protected natural forests and stabilized upland areas".
    C. 5-Year Goals and Objectives of the FLUP - How will the FLUP achieve the LGUs VM (when approved and implemented)? If possible, this section should have numeric targets
        1. Based on governance-oriented processes, what should the LGU in collaboration with DENR and participation of local stakeholders do to allocate, protect, and manage FFL resources based on key biophysical, socio-economic, legal, and political criteria?
        2. Based on governance practices, what should the LGU and DENR do to protect, rehabilitate, manage, and develop priority sub-watersheds (specify **subwatersheds)?**
        3. What specific measures should be taken to facilitate resolution or reduction of conflicts arising from the governance of forests and forest lands?
        4. What kind of performance monitoring system should be in place to monitor and evaluate key performance indicators of FFL improvements over time?
        5. What kind of implementing organization (structure) and/or institutional arrangement should be established to implement key technical recommendations that will redound to the protection, management, and development of FFL?

III. Scope and Limit of the FLUP - This should be written in the context of the comprehensive land use plan of a municipality or province) e.g. only within forest land, maps for FLUP only, vis CLUP e.g. "This FLUP is not about land use but recommendations regarding how to best allocate and manage the LGU FFL"

IV. The FLUP Process and Methodology
    A. Orientation on TAP-enhanced FLUP process, formation of the FLUP team, action planning
    B. MOA (DENR and LGU) with ordinance or resolution from MDC and SB.
    C. Sources of information – maps, socioeconomic and biophysical information
    D. Preparation, validation, and revision of thematic and composite maps
    E. Map overlays, analysis, consultations with various stakeholders (communities, NGAs, private sector, members of civil society, LGU leaders, SBs, MDCs)
    F. Criteria for prioritizing sub-watersheds and for allocating open access (unallocated and unmanaged) forests and forest lands

G. Cross visits – lessons learned and observations
H. Community mapping and field validation of recommendations for the allocation and management of the forests and forest lands
I. Visioning, drafting, and revising the final FLUP *(include CBW, stakeholders analysis)*
J. Legitimization (MDC and SB ordinances or resolutions or resolutions from civil society groups or PO groups)
K. Endorsement and approval of FLUP by the LCE and DENR
L. Preparation, validation and signing of MOA for implementation – investments in infrastructure, extension services, tenure application and processing, community organizing, preparation of resource management plans, IEC/advocacy, creation of MENRO, etc.

V. Findings (Results of data gathering, consultations, validations, site visits, and analyses) - The findings must be able to present a municipal level analysis of the forests and forestlands as assets, local stakeholders, key variables that may impact FFL governance and management, priority issues, needs, and constraints that require immediate actions and decisions, among others.
A. What FFL assets are in the LGU?

B. Where are the different kinds of FFL assets located or distributed? Allocated? Unallocated?
C. Where are the protection and production forests?
D. How are the allocated FFL assets protected, managed or developed?
E. Who are the on-site and off-site stakeholders in FFL? DENR, LGUs, communities (on-site protection, management, utilization, upland farming?), private sector (financiers, processing, marketing, forest plantations, etc.), civil society organizations (advocacy, on-site management, monitoring, etc.), other government agencies (extension support, financing, monitoring, etc.)

F. What and where are the current and emerging conflicts in the use and allocation of FFL resources?
G. What are the key issues, constraints, problems in the protection and management of FFL? At the LGU level? Tenure holder level? DENR level? Occupants/claim level?
H. What are the FFL products that are being produced, harvested, processed and marketed?

VI. Technical Recommendations (Translating the Vision into Reality; Stated in support of a clearly defined strategy for achieving vision and mission, goals and objectives) - what are the most appropriate technical strategy or strategies to achieve the LGU's vision and mission and meet the goals and objectives of FLUP? The proposed strategy should consider present FFL assets, what worked/didn't work (hindsight), internal and external opportunities (present and future), overall capacities (strengths and weaknesses) of FFL direct stakeholders (LGUs, local DENR, private sector, communities), constraints, and issues/needs/problems.
A. What internal and external opportunities and strengths are being responded to by the technical recommendations? What problems, issues, and needs are being responded to?
B. How do these technical recommendations deal with present and future constraints and weaknesses, inadequacies or shortcomings of various stakeholders?
C. What should the LGU and DENR do to protect or conserve the remaining natural forests, develop forestlands that have potential for high value crops and plantations, protect biodiversity, enhance ecotourism areas, rehabilitate and manage priority sub-watersheds which supply surface or ground water, recognize and help indigenous cultures, resolve conflicts, etc?
D. What are the critical investments to effect protection, conservation, or rehabilitation of areas under natural forests? In degraded but occupied/cultivated forest lands?
E. What kind of extension support systems should be in place? Livelihood and micro-enterprise support system? Infrastructure support? Others?
F. What incentive systems should be in place in order for different tenure/allocation holders invest their own resources? Those that can be acted by the LGU? Those outside the LGU system?
G. What specific investments in priority sub-watersheds will produce the highest net positive environmental impacts? And protect on- and off-site communities and public infrastructures?
H. Based on findings, what should be the most appropriate mix of tenure/allocation instruments that could address protection and management of FFL assets? IFMA? CBFMA? Co-Management? Declared protected areas? (for what? community watershed?, local park?, biodiversity?, etc.)
I. What assistance can the LGU, DENR, private sector or other stakeholders could provide in the preparation and implementation of Resource Management Plans? Financial Assistance? In-kind contribution?

Conduct of periodic performance monitoring activities?

J. What should be done to ensure on-site protection, development, and management of FFL assets under existing tenurial/allocation instruments? Individual Property Rights (IPR)? Priority in employment opportunities, if any? Extension system?

K. What are the key performance indicators that should be periodically monitored and assessed by the LGU and local DENR to track FFL asset improvement over time? Who will be involved in this process? Who will finance the process? How will results be reported? How will accountability be carried out?

L. What are the proposed recommendations to address current and future conflicts in the use and allocation of FFL resources?

M. How will each of the stakeholders be involved in the protection and management of FFL resources at the LGU level? Direct FFL protection and management? Participate in delivery of extension and other support system to tenure/allocation holder? Provide financing or other in-kind support? Participate in monitoring and advocacy? Marketing and processing of FFL products and services?

VII. Institutional Arrangement - This section includes proposed actions on how the LGU will organize, mobilize, and internally monitor its FLUP implementation with the assistance and collaboration of DENR, local stakeholders. This should be written from the perspective of the "LGU in the driver's seat; with the DENR as the main source of technical standards, policy, and one of the technical support; and the CSOs and the market players as the "demanders" of environmental goods and services from FFL.

A. What is the most suitable structure and organizational arrangement to implement the FLUP and monitor its progress and impacts over time? Who (among the stakeholders) should be involved in annual work and financial planning, implementation, monitoring? What capabilities need to be developed?

B. What kind of technical and support staff will this structure or organization need? Where will they come from?

C. What kind of collaborative arrangement should be done with local DENR, NGAs, or other CSOs to implement the FLUP and leverage non-LGU resources and expertise?

D. How can the institutional structure and/or arrangement be formalized or become legally functional?

E. Will the creation of a MENRO facilitate implementation? How will the MENRO be organized or structured? How will it coordinate plans and activities? Funded? Reporting relationships?

F. What kind of ordinances or DENR's or DILG's or legislative policy actions will strengthen the authority of the implementing organization?

G. How can the leagues and CSO groups affirm or assist the organization in advocacy, networking, leveraging, monitoring, and holding other partners accountable?

H. What will be the major tasks and responsibilities of the implementing organization or a responsible organization in the FLUP implementation?

VIII. Budgetary Requirements (5-year)

A. A Gantt chart showing the key strategic FLUP implementation activities and their respective durations by year.

B. Estimated Costs and Sources of Funds (Estimate these costs and identify sources of funds – in kind and in cash contributions from other partners) based on part A scheduling and Chapters 7 and 8

1. What financial resources are available at the LGU level? What funding sources may be tapped in the short, medium, and long term? Will LGU, rentals, taxes, grants, counterparts of DENR and other government agencies, income from joint venture agreements, NGOs, OGAs, financing facilities, private sector investments be enough to fund FLUP implementation?

2. What is the total cost of implementing the technical recommendations and the institutional arrangements in the FLUP? What would be required for personnel, maintenance and operating expenses, and capital outlay during the first year? Two years? Five years?

3. How much of the total cost can be shouldered by the LGU? DENR? NGA? CSOs? Private sector, if any?

4. What direct investments – nursery, rehabilitation or reforestation, establishment of tree farms or plantations, roads, bridges, social services - for FFL protection and management of forests and forestlands could be expected from the LGU, DENR, communities, private sector, NGAs, CSOs?

5. What are the possible sources of funds – LGUs, DENR, other partners? – and strategies for financing the total cost of FLUP implementation? Who will carry out these strategies

IX. First Year Work and Financial Plan (Same as B format, except that duration will be in quarters and the key activities will be done within the year)
   A. What are the key priority activities that should be carried out during the first year of FLUP implementation? In what quarter (s) will they be implemented?
   B. How would these activities be incorporated in the First Work and Financial Plan for Implementing FLUP?
   C. How will these activities be financed and get approval for funding?
   D. What funding support in cash or in kind may be leveraged out from DENR, NGAs, CSOs? In support of the first year WFP?
   E. Who will "champion" the FLUP implementation at the LGU level?
   F. What are the expected outputs from the key implementation activities?
   G. How will the results of implementation be monitored and reported at the end of the year?
   H. How will the implementing organization be held accountable? How will implementation results be reported? To whom? By whom?

Findings and Recommendations for the Municipal FLUP

I.   What is a Governance-Oriented FLUP ?
   A. A ROAD MAP for the allocation and management of, investments in, and performance monitoring of FFL within the municipality
   B. A MENTAL IMAGE of the *"FFL future" in a municipality* based on situational analysis, expressions of stakeholders, responses to challenges and opportunities, and clear understanding of the different roles and responsibilities of various stakeholders
   C. A PLAN that provides clear and common DIRECTION (vision, mission, goals, objectives, strategies) to the LGU with the assistance of DENR, and other stakeholders in protecting and managing FFL within its political jurisdiction
   D. A PLAN that provides HOW THE LGU will organize, mobilize, and use resources (pesos, staff, network/ linkages) to achieve defined FFL governance and management OBJECTIVES
   E. A PLAN that provides how the LGU and DENR will monitor improvements of FFL assets over time based on key performance indicators
   F. A VISIONING exercise

II. The Municipal FLUP – Content and Substance
   A. Main Components of the FLUP
       1. Executive Summary
       2. Background and Rationale
       3. Vision, Mission, Objectives, Targets
       4. Methodology (data gathering, analysis, validation, revision, consensus, and legitimization)
       5. Findings – technical, social, and institutional
       6. Technical and social recommendations
       7. Recommended institutional arrangement for implementation and conduct of performance monitoring system
       8. 5-Year Estimated Cost of the LGU and DENR for the Joint FLUP Implementation
       9. 5-Year Estimated investment costs by the LGU, DENR, allocation and tenure holders, private sector, CSOs
       10. Sources of Funds for FLUP Implementation
       11. Annexes – maps, tables, resolutions, agreements, MOAs,significant minutes of meetings, etc.
   B. Findings – the basis of recommendation
       1. What **FFL assets** are in the municipality – forests, forestlands, sub-watersheds, biodiversity, eco-tourism potentials, etc.
       2. What are the present **conditions** of the FFL assets?
       3. Who are the **key stakeholders** of the FFL assets?
       4. How are these **FFL assets used**, managed, protected, improved?
       5. How are these **FFL assets governed**? How are they allocated? How were the FFL areas allocated? Who makes decisions and actions on their use, protection, management? Who has control over the FFL assets?
       6. What and where are the **conflicts** on the use and occupation of FFL?
       7. What **institutional capacities exist** for FFL governance and management?

C. Framing the Recommendations
   1. Consistent with vision, mission, strategies, and objectives
   2. Actionable with a sense of urgency
   3. Anticipatory with common sense
   4. Specific – who will do what, when, where, how much?
   5. Directed to LGU decision makers
   6. Directed to DENR decision makers
   7. Requires a strategy for marketing the set of recommendations to the "buyers"
   8. Requires a good understanding of the "product" and behaviors of the "buyers

D. Recommendations – the "Product"
   1. For unallocated "forests" and forestlands
   2. For allocated but unmanaged forests and forestlands
   3. For boundary and use conflicts
   4. For institutional arrangement that will carry out the FLUP recommendations – RAA and governance mechanism
   5. Support system for holders of community allocations? Enforcement mechanisms for holders of private sector allocations? Accountability mechanisms for government holders of allocation instruments?
   6. Who will fund what, how much, when?
   7. Periodic assessments of FLUP implementation by a local multi-sectoral committee including public expenditures review and accountability meetings
   8. 7. Support systems – social, technical, and infractructures
   9. IEC and social marketing
   10. Investments – promotion, linkage, agreements

III. DENR-LGU Partnership for Achieving National FFL Objectives
   A. Possible Range and Spectrum of DENR-LGU Partnership
   B. Co-Management Agreements
      1. JMC 2003-01 and EO 318
      2. Joint Implementation MOA between DENR and LGU (**MOA for Joint FLUP Implementation**)
      3. Co-management agreement between DENR and LGU over the protection, development, management of a specific area of "forestlands" (**MOA for co-management of specific area of FFL**).
      4. Key provisions in the FLUP Implementation MOA
         • DENR - policy formulation, standard setting, technical assistance, research and extension, periodic performance monitoring and assessment, conflict mediation and facilitation, linkage and promotion, market studies and assessments
         • LGU – tenure processing, extension, local enforcement, facilitate ADR, funding, infrastructure and social support, facilitate water users fee, monitor periodic performance of tenure and allocation holders, IEC, facilitate IPRs.
      5. Governance provisions in the FLUP Implementation MOA
         • Obligations of each party? How will each one hold each other party accountable
         • How will decisions be made with respect to the exercise of DENR's 4 major powers? Participatory? Transparent? Accountable?
         • How will the results and recommendations from the periodic performance monitoring activities be discussed and acted upon?
         • How will DENR and the LGU hold annual public expenditures review on how each and other parties budgeted, expended, and supported the FLUP implementation?
         • How will DENR and the LGU conduct annual meeting and evaluation of all "tenure and allocation holders" within the LGU and discuss on-site management activities and FFL enforcement?

Tools for Gathering Spatial Data

I.   Introduction

A.   What are spatial data – information pertaining to space, area or place
B.   Why gather spatial data?
C.   Topics to be covered
1.   Theory, use and limitations of:
- Personal perception of the place
- Walk throughs or reconnaissance (PUT PIX VISUAL #
- Transects or transect mapping
- Community mapping
- Secondary information
2.   Gathering spatial data
- How features of interest (ie. land cover, land use, settlements, resource use, infrastructure, etc) are distributed and how they relate spatially
- Look into different sources of spatial data (maps are not the only sources of spatial data)
- Provide examples of how different kinds of tools may be applied in order to have a better analysis of the data
D.   Tools for gathering spatial data
- Personal perception or spatial cognition - awareness, impression, information, images, and beliefs that people have about environments

1.   Walk-throughs or reconnaissance
a.   Description of the tool - On the ground preliminary survey to gain information. It involves field visit and going through the area of interest
b.   Uses of walk-throughs /reconnaissance
- Getting a "sense of place" – orienting oneself to the place
- Getting a feel where things are and how they are on the ground
- Relate things in the landscape to the map – adding character to the map
- Relate the measurement of area or distance from the ground and on the map
- Visually assess how big an area is or how far it is
- Different from seeing the place on the map and on the ground
- Adds to the knowledge – spatial perception of the area of interest
- Helps create a mental map of the area
c.   Outputs
- Personal, situated knowledge information of the area
- a personal appreciation of the conditions, relationships and interactions of the different biophysical and socio-cultural features of the area

2.   Transect mapping
a.   Description of the tool - Mapping of a sample area (as of vegetation) usually in the form of a long continuous strip. Map is cross-sectional rather than top view.
b.   Uses of transect maps
- show the distribution/zonation of a resource of interest (vegetation) as seen on the surface
- Relate the different attributes (elevation, type of soil, other land uses, problems, opportunities, etc) also coexisting within the identified zones

3.   Participatory sketch mapping
a.   Description of the tool - A method for collating and plotting information on the occurrence, distribution of different biophysical and socio-cultural features such as demographic data, cultural landmarks, resources, resource use and access, land ownership and domain, infrastructure, ethnolinguistic groupings, etc.

       b.   Uses and key features
- It can be used as an IEC activity
- Develops people's integrated knowledge of their place
- Collaborative planning
- Collaborative research
- Empowering activity

       c.   Limitations
- Spatially confined to the social, cultural and economic domains of those who produced it
- The integrator must be really familiar with the areas involved

       d.   ESSC's community mapping process
- Initial visit, establishing linkages and reconnaissance
- Actual sketch mapping activity
- Integration of CM with technical map
- Validation

       e.   Selection of participants in community mapping
- Representations from different stakeholders
- Properly informed of what will be done
- If more will come – ok

       f.   Roles of Facilitators
- Lead facilitator - centers the mapping activity and asks the questions; Draw out the participation of the participants
- Documentor – notes the comments of participants and additional data that may be difficult to be noted on the map
- Second facilitator – may help facilitate small discussions during the mapping activity

E.   Gathering non-spatial data
     Sources:
     1.   Reports of agencies, NGOs and projects – NIA, DA, DENR,
     2.   Census data
     3.   Journals, articles in newspaper
     4.   Local legislation

Annexes

Suggested Municipal Forest Land Use Plan Outline

Summary

- Highlights and summary of the plan
- Recommendations and plan of action on:

  ➢ Key targets and closure of open access forests and forest lands
  ➢ Key targets and putting effective management on allocated forests and forest lands
  ➢ Resolving or reducing conflicts in forests and forest lands
  ➢ Support systems, incentives, financing
  ➢ IEC, advocacy, and formation of multi-sectoral organizations
  ➢ Enforcement of forestry rules and regulations
  ➢ Implementing structure and operational strategy
  ➢ Capacity building for the implementing and supporting organizations
  ➢ Collaboration and complementation of support sytems
  ➢ M & E including participation of civil society groups in annual assessment
  ➢ 5-years -Total costs, sources, and uses of funds for implementing the FLUP
  ➢ Priority sub-watersheds for increasing/improving forest cover – investments in rehabilitation, protection, enforcement, tenure processing, support systems.

Note: This summary should have a visual presentations of the current status and envisioned forests and forest lands after five or ten years.

1.0   BACKGROUND

1.1   Rationale of the municipal forest land use plan in the context of improving forests and forest lands management at the LGU level
1.2   FLUP in the context of its historical, socio-economic, biophysical, life support systems, agricultural, industrial, and political importance.
1.3   FLUP in the context of the present and future consumption and production of food, fiber, and water. Relate this with the location and area (with location map) of the LGU.
1.4   Discussion on how the plan and its implementation respond to the current PINOs (problems, issues, needs, and opportunities) in forests and forest land management within the LGU.

2.0   LGU'S VISION, MISSION, GOALS AND OBJECTIVES ON ITS FORESTS AND FOREST LANDS

2.1   Vision and Mission (See Discussion Note)
2.2   Improve the socio-economic condition by ensuring sustainable production of food, fiber, and water in the locality
2.3   Maintain ecological balance and biodiversity through effective development and management of forests and forest lands in each sub-watershed.
2.4   Protect communities, public and private investments from environmental hazards such as damages from sudden floods and landslides

2.4   Manage the forests and forests for tourism, aesthetic purposes, and well-balanced clean environment.

3.0   GOALS AND OBJECTIVES

Based on transparent and participatory approaches and clearly defined goals, standards, and centers of responsibility and accountability,

3.1   Determine priority sub-watsheds for planning and allocating limited resources for development and investments;

3.2   Determine and recommend optimal allocation and management of forests and forest lands following biophysical, socio-economic, legal, and political criteria;

3.3   Recommend measures to facilitate resolution or reduction of conflicts arising from the governance of forests and forest lands.

3.4   Provide a baseline to monitor and evaluate key criteria and indicators for the implementation of legitimized FLUP to achieve sustainable environmental and forests and forest lands management.

4.0   SCOPE AND LIMIT OF THE FLUP (IN THE CONTEXT OF THE COMPREHENSIVE LAND USE PLAN OF A MUNICIPALITY OR PROVINCE)

5.0   METHODOLOGY

5.1   Orientation on TAP-enhanced FLUP process, formation of the FLUP team, action planning

5.2   MOA (DENR and LGU) with ordinance or resolution from MDC and SB.

5.3   Sources of information – maps, socioeconomic and biophysical information

5.5   Preparation, validation, and revision of thematic and composite maps

5.5   Map overlays, analysis, consultations with various stakeholders (communities, NGAs, private sector, members of civil society, LGU leaders, SBs, MDCs)

5.6   Criteria for prioritizing sub-watersheds and for allocating open access (unallocated and unmanaged) forests and forest lands

5.7   Cross visits – lessons learned and observations

5.8   Community mapping and field validation of recommendations for the allocation and management of the forests and forest lands

5.9   Visioning, drafting, and revising the final FLUP

5.10   Legitimization (MDC and SB ordinances or resolutions or resolutions from civil society groups or PO groups)

5.11   Endorsement and approval of FLUP by the LCE and DENR

5.12   Preparation, validation and signing of MOA for implementation – investments in infrastructure, extension services, tenure application and processing, community organizing, preparation of resource management plans, IEC/advocacy, creation of MENRO, etc.

6.0   KEY FINDINGS

6.1   Watersheds, sub-watersheds, key drainage systems, and priority sub-watersheds

6.2   Forest lands, A &D areas, protection forest lands per watershed

6.3   Vegetative cover of each sub-watershed - forest lands and A&D; tree farms, forest plantations, natural forests, agroforestry systems, perennial high value crops

6.4   Unallocated forests and forest lands (total and per sub-watershed) – those not covered by any form of tenure, allocation instrument, or "set asides".

6.5   Allocated forest lands and their existing management systems

6.6   Total "open access forests and forest lands" – unallocated and unmanaged but allocated forests and forest lands

6.7   Forests and forest lands with boundary and use conflicts

6.8 Public and private investments – LGU and DENR allocated budgets in support of forestry activities, historical and projected investments on infrastructures, processing facilities, forests and agroforestry nurseries, etc.; soft investments (such as CO, tenure processing, preparation of proclamations or co-management agreements, preparation of resource management plans, extension services, social services in upland communities, etc.); investments of foreign-assisted projects.

6.9 Settlements in forests and forest lands (IPs and migrants)

6.10 Key issues, conflicts, problems, needs, investment/socio-economic opportunities (total and by sub-watersheds)

7.0 RECOMMENDED COMPONENTS AND STRATEGIES FOR IMPLEMENTING THE FLUP

7.1 Priority Sub-Watersheds

- ➢ Recommended strategies for protecting, rehabilitating, and managing the priority sub-watersheds
- ➢ Titling, zoning, and converting A & D lands in the priority sub-watersheds
- ➢ Key public and private investments in support of protecting, rehabilitating, and managing the sub-watersheds
- ➢ Resolving and/or reducing conflicts arising from boundaries, claims, and use rights
- ➢ Required ordinance, resolution, order, or declaration in support of the priority sub-watersheds

7.2 Allocation and Closure of Open Access (for unallocated and unmanaged but previously allocated forests and forest lands)

- ➢ Co-management agreements and individual property rights (IPR)
- ➢ CBFMAs and ancestral domain claims – with IPR
- ➢ Local protected areas, communal watersheds, parks, recreation areas, etc – with IPR
- ➢ National protected areas and declared watershed/civil/military reservations – with IPR
- ➢ Resolving and/or reducing boundary and use rights conflicts

7.3 Management of Allocated Forests and Forest Lands

- ➢ Recommended IPR strategy under each allocated forests and forest lands for improving management
- ➢ Multi-sectoral and periodic monitoring and evaluation of the performance of holders of allocation or tenure holders based on approved resource management plans.
- ➢ Resolving or reducing conflicts of claims and use rights in the allocated forests and forest lands.

7.4 Organizational Structure and Operations in Support of FLUP Implementation

- ➢ Creation and/or strengthening the MENRO
- ➢ IEC/Advocacy
- ➢ Enforcement, deputation, litigation, and penalties
- ➢ Extension support systems – DENR, LGUs, collaborative arrangements, facilities, and financing support for smallholder operations
- ➢ Crafting, implementing, and administering user fee systems
- ➢ Forging partnership agreements or arrangements
- ➢ Marketing the FLUP through investment fora.

7.5   Periodic Monitoring and Evaluation of FLUP Implementation

   ➢ Multi-sectoral and interagency periodic assessment, analysis, and reporting in support of the FLUP
   ➢ Participation of a multi-sectoral groups to monitor compliance to commitments and MOA under the FLUP.
   ➢ Periodic assessment of key FLUP indicators – forest cover, reduction of open access forests and forest lands, etc.

7.6   Estimated 5-Year Financial Requirements for Implementing the FLUP

   ➢ Total Costs of Personnel requirements, Maintenance and Operating Expenses, Capital Outlay
   ➢ Sources of funds – LGU, rentals, taxes, grants, counterparts of DENR and other government agencies, income from joint venture agreements, private sector investments, etc.
   ➢ Uses of funds – personnel, MOE, investments, support for smallholder upland farmers/groups, facilities such as nursery, capacity building activities, coordination costs, etc.
   ➢ Strategies for meeting the total FLUP implementation financial requirements

7.7   First Work and Financial Plan for Implementing the FLUP

   (Very similar to Section 7, except that details are provided – detail of specific activities, who is responsible, target date, how much will it cost, etc.)

8.0   ATTACHMENTS

   ➢ thematic maps
   ➢ location map
   ➢ derived maps
   ➢ composite map
   ➢ vision map (if any)
   ➢ appendix tables
   ➢ appendix figures
   ➢ minutes of meetings, validations, public hearings, and consultations
   ➢ recommended organizational set-up for implementing the FLUP
   ➢ details of recommended schedule and required budget of key activities for implementing the FLUP
   ➢ resolutions and adoption by the MDC, civil society groups, Pos, private sector groups
   ➢ resolution and approval by the Sangguniang Bayan
   ➢ signed MOAs (for FLUP preparations; and for FLUP implementation)
   ➢ Approval of the FLUP by the LCE and DENR

Profiling Indigenous People in EcoGov Project Sites

DESCRIPTION:

This module will enable the participants to identify and gather the information necessary to understand the indigenous people in an Ecogov project site.

SOURCES OF INFORMATION:

1. Ethnographies and other secondary data
2. Ethnolinguistic Maps
2. LGU profiles
3. Site visits
4. Liaison with NCIP and relevant local organizations
5. Liaison with anthropologists and NGOs who have done work in the area

CONTENT:

Location and Identification

To locate and identify the indigenous peoples in a project site the following are needed:

1. Ethnolinguistic maps indicating the location and distribution of indigenous people. The following maps are available:
   a. Philippine Culture and Ecosystems Map (1998) produced by Environmental Science for Social Change (ESSC). ESSC based its linguistic grouping on an earlier map produced by the National Museum of the Philippines in 1974.
   b. Map by the National Council of Churches in the Philippines (NCCP) and the People's Action for Cultural Ties (PACT) (1983).
   c. Language map published by the Summer Institute of Linguistics (1999).

   Other sources are ethnographies of indigenous peoples which include a map showing their location. These can be located in Universities such as Ateneo de Manila and the University of the Philippines.

   In 1993, the Department of Environment and Natural Resources (DENR) implemented DAO 2 which provided for the delineation and demarcation of their ancestral domains. IP communities who were granted their Certificate of Ancestral Domain Claim (CADC) and Certificate of Ancestral Land Claim (CALC) have maps of their ancestral domains. These can be located at the National Commission on Indigenous People's office (NCIP).

   With the passage of Republic Act No. 8371 or the Indigenous People Rights Act of 1997 ancestral domains and lands have also been delineated and demarcated. Many of these are being revalidated for titling. Maps of Certificate of Ancestral Domain Titles (CADTs) and Certificate of Ancestral Land Titles (CALT) are also located at the National Commission on Indigenous People's office.

Using CADC, CALC, CADT, and CALT maps in FLUP. There are questions and issues regarding the legitimacy of some of the IP claimants for CADC, CALC, CADT, and CALT. When these maps are used, data derived from the ethnographic maps, published ethnographies, and anthropological expertise must be used to validate the information from NCIP. This is important so as not to exclude the key stakeholders and claimants who will need to participate in the FLUP, CRM, and ISWM training modules.

In the absence of CADC, CALC, CADT, and CALT maps, it is critical to involve the participation of the IPs within Ecogov project sites so that they may delineate for the LGUs and the LSP their domain areas. IP leaders, some of whom may still be traditional, will need to be identified within each community. This is a process that cannot be hurried as these types of consultation and participation by the IPs will need community organizing from the respective LGU and/or the LSP. It is highly recommended that an Anthropologist be involved to facilitate the process.

2. Demographic data. The estimated population of IPs in the Philippines ranges from 12 to 15 million. The National Statistics Office (NSO) will have data on the population of IPs. Their publication on census and population, however, do not contain data on ethnic identity but only on the mother tongue. Other anthropologists indicate that NSO data on IPs should be treated with caution as mother tongue represents only 10% of the population of a particular province. Other demographic data on number of families/households, population density, age-sex distribution and rate of growth are almost non-existent for many IP communities. These are data that can be gathered by the LSP.

The National Commission on Indigenous Peoples (NCIP) collected census figures from various IP groups in 1995. Their data has inaccuracies and will need to be validated with other demographic data from a project site.

Other sources of demographic information on IPs can be derived from the following sources:

a. NCIP. Ancestral Domain Management Plans of CADC holders and the Ancestral Domain Sustainable Development and Protection Plan (ADSDPP) of IPs under the IPRA law.

b. Donor Agencies/Funding Agencies. Projects where the presence of indigenous peoples has been identified will most likely have demographic data on indigenous peoples. This will be the case, for example, for World Bank which has a Social Safeguard policy for IPs.

c. NGOs and researchers working in areas occupied by IPs.

d.   Anthropological researchers will have data from their project sites.

e. LGUs. Municipal records may have data based on ethnic identity. Specific demographic information on communities can be gathered from Rural Health Units (RHU). They generally require the midwives in the barangays to provide up to date figures on number of families, age-sex distribution, mortality and morbidity.

Social structure, land and resource use

Information on how different indigenous people use and mange the resources within their respective areas can be derived using a combination of various methodologies such as:

- ➢ Case studies
- ➢ Participatory Rapid Appraisal (key informant, FGDs, questionnaires, observations)
- ➢ Thematic mapping (Community mapping)
- ➢ Surveys

- Secondary data
  - Prioritize
    - Ethnographies
    - Academic journals/papers
    - Ethnographic maps

    Others
    - Reports (Government and non-government)

In analyzing social structure of an IP community, the focus needs to on the patterns of social and political organization including the forms of family, kinship and marriage. These will have an effect on the land tenure and accompanying belief systems of different IPs.

For IP political organization, there is a need to identify the traditional leaders for each community. Many IPs have their own representative organizations that provide effective channels for communicating local preferences. Traditional leaders occupy central positions for mobilizing people and need to be brought into the very early stages of the project design. However, it must also be recognized that today in many IP areas traditional leadership is gradually changing with an overlay of contemporary civil structures.

Guidelines in FLUP Thematic Mapping

I.   DEFINITION AND USE OF THEMATIC MAPS

A. Thematic maps - a simple outline map depicting a <u>single</u> feature of the earth's surface or representing a single subject or <u>theme</u> or subject.(HLURB, 1996).
B. Uses of thematic maps
    1. Useful to physical and land use planning
    2. Allows overlay analysis
    3. Makes map updating easier

II.   GENERAL GUIDELINES IN MAKING THEMATIC MAPS

1) Use the best available map as the asource map for the base map, such as NAMRIA's 1:50,000 topographic maps
2) Make a thorough evaluation of the gathered maps as to their reliability and up-to-dateness before adopting them
3) If the maps are not available then one can also utilize documents that provide the **technical descriptions** of points or polygons
4) Each thematic map prepared should be traced from the base map.
5) Ideal materials for thematic mapping are transparent, not stretchable, and durable and would allow inexpensive and easy duplication.
6) Validate Toponyms.
7) Make sure that each map is properly titled. The map should reflect the theme and the location of the mapped area
8) Use clearly distinguishable marks and symbols to depict the features in the thematic map.
9) Provide a summary of the relevant statistics that can be generated from the map in a table.
10) All maps must be oriented to the north. Make sure that the directional arrow is clearly shown in the map.
11) The scale should be properly reflected in the map both as a representative fraction and as a graphical scale.
12) The projection that we reflect on the FLUP maps is what is used in NAMRIA's 1:50,000 topographic map which is our base map. The projection is the Transverse Mercator.
13) Always show the references used in making the maps. Notes that would guide in using the data or an advisory on the quality of the content of the map should also be indicated.
14) It is important to put the preparer of the map and the date the map was prepared
15) All thematic maps should have its locational information indicated. This is usually done by drawing tic points on the map
16) There is a need for thematic maps to be checked by the planning office of the LGU as well as DENR to confirm the trueness of the spatial data presented on the maps.

III.   CORE THEMATIC MAPS IN MUNICIPAL FLUP: CONTENTS AND MAPPING STANDARDS

1) Watershed and drainage map
2) Administrative map
3) Land classification map
4) Elevation map
5) Infrastructure map
6) Settlement map
7) Slope map
8) Existing allocation and tenure map
9) Land cover map
10) Issues map
11) Hazards map
12) Mineral map

Suggested Guide to Analysis

I.   CHANGES IN FOREST COVER; CAUSES OF CHANGE

- Present forest cover (type of forest, area and % of total forestlands), change in forest cover from 1987 (based on spot map) to the present (decrease/increase)
- Total population in the uplands (two time periods), migration pattern/trend within a certain period highlighting when migration to the upland was at its peak, trend in the last five years, causes of migration to uplands; the barangays to where migration has been highest
- Major livelihood activities of upland households (including harvesting of forest products); area of forestlands being used for agriculture; major crops grown and agricultural practices being used (particularly those which are considered harmful to the environment)
- Accessibility of upland barangays – describe existing road system in uplands, indicate if there are plans in the next five years to improve road system
- Extent of open access areas — tenured areas of forestlands in the past (when TLA was still operating, if TLAs ever operated in the area), present tenured areas and tenure areas which will become open access in the next five years (if any); show change (decrease/increase); observations re reduction of forest cover as a result of increasing open access or improvements in forest cover due to increased tenured areas; tenured areas which are not being properly managed; current claims on forestlands/open access areas (e.g., IPs, etc).
- Current extent of illegal logging activities in forestlands– location (and estimated area) of identified hotspots highlighting if these are occurring in critical areas (old growth forests, biodiversity areas, steep slopes, watersheds of water and irrigation water sources); indicate if large scale or for household use

II.   OPPORTUNITIES FOR IMPROVED FOREST MANAGEMENT

- Significant forest tree plantations that have been established (by tenure holders, special projects, individuals/households, LGU); tree species; harvestable (are they located in non-protection areas? are they designed for harvesting? when can they be harvested?)
- Significant agro-forestry areas that have been developed; what are grown (highlight high value crops grown, if any – e.g., coffee); where are expected markets; are support infrastructure sufficient for the marketing of these products
- Areas within forestlands which can potentially be developed for plantations/ production areas based on the physical attribute of the area (elevation, slope, climate, soil quality, access, etc)
- Major non-timber products extracted from forestlands; where sold; what are final products; who are presently involved in harvesting
- Other resources that can potentially or being planned for extraction or development in the next five years (minerals, limestone/sand and gravel, eco-tourism areas)
- Organized upland communities which can be potential CBFMA holders
- Sectors which are interested to invest in the uplands; externally funded projects in the uplands (ongoing and proposed)

III.   DEVELOPMENT ACTIVITIES IN LOWLANDS THAT HAVE IMPLICATIONS ON UPLANDS

- Projected population increase within the next five years (to indicate wood needs for housing)
- Irrigation systems which source their water from upper watersheds within the LGU, (both existing and planned irrigation systems for the next five years); extent of service areas; observations through time re water quantity and quality
- Domestic water systems that source their water from upper watersheds of the LGU, both existing and planned systems (including expansion of system); households serviced, observations through time re water quantity and quality
- Major infrastructure development activities in the next five years (what types, investment value)
- Existing and proposed industries (within the LGU or outside the LGU) which require raw materials from the uplands (existing and proposed), e.g., handicrafts, sawmills
- Planned industries/investments which can potentially reduce dependence on forest resources (shifter investments)

IV.   OTHER ISSUES

- Irrigation systems within the LGU which source their water from watersheds outside the jurisdiction of the LGU
- Activities in other LGUs which have impacts on the LGU (e.g., mining activities)
- Irrigation and domestic water supply systems of other LGUs that source their water from within the LGU, etc.

V.   COMPARATIVE ANALYSIS OF SUB-WATERSHEDS

Objectives:

- To provide a more detailed analysis of forestlands using watershed framework
- To generate data to be used in sub-watershed prioritization.
- To identify priority investment areas in each watershed (i.e., what investments would be necessary for each sub-watershed)
- To determine relative priority of the various sub-watersheds for investment purposes (i.e., which sub-watershed should be given priority if the LGU is to invest in forest management)

The parameters below need not all be included in the analysis. The TWG and TA Team can agree on the most critical ones for the LGU. Those that are italicized are considered the most important and should be included, as these will be used during the sub-watershed prioritization exercise.

Parameter	Description	Data Source	Use of Data
A. Coverage/Extent of the sub-watersheds			
• *Total area of watershed within LGU*	*Breakdown of area into A and D, and forestlands*	Map overlay analysis	To determine relative significance of sub-watersheds with respect to area within LGU. This data will be used in sub-watershed prioritization.
• *Total influence area*	*Describe location of upper watershed (headwaters) and the downstream area of the sub-watershed. Indicate if parts of the sub-watershed are found outside the LGU (off-site).*	Analysis of topo map and sub-watershed map	To establish the upland-lowland relationship within each sub-watershed and determine influence of neighboring LGUs on the LGU. This will suggest which LGUs should be planning together.
B. Major functions of sub-watersheds			
• Protection	Identify areas within the sub-watershed which have high biodiversity value; explain significance (e.g., sightings of rare and endangered species); estimated area; status of area (proclaimed? proposed for proclamation?) Existing old growth forest (ha) Existing mangrove forests (ha)	Map overlay analysis, TWG input	To determine the relative significance of the sub-watershed in terms of protection/biodiversity conservation. This data will be used in sub-watershed prioritization.
• Production (timber and other forest products)	Indicate types of production area (forest plantations, second growth, etc.) and the forest products, which are presently or can potentially be harvested. Indicate potential forest production areas and if there are investments already being planned for the area.	Map overlay analysis; TWG input	To determine which sub-watershed has the highest importance in terms of production of timber and other forest products. For planning such questions may be asked: Is extraction legal? Does it require regulation? Does it require infra support?

Parameter	Description	Data Source	Use of Data
• Production (agricultural products)	Extent of agricultural areas in both A and D and forest lands. Indicate if there are investments being planned to further develop the agricultural areas (e.g., plantations, etc).	Map overlay analysis; TWG input	To determine which sub-watershed has the highest importance in terms of agricultural production. For planning, such questions may be asked: Are agri practices sound? Does it require regulation? Does it require infra, marketing, extension support?
• Water source	*Indicate if the river system is supporting irrigation systems, hydropower generation, and domestic water supply. Indicate the watershed area that supports this function.*	Map overlay analysis; TWG input	To identify river systems that are important sources of water for irrigation, water supply and hydropower. If this is related to forest cover, this will identify watershed rehab or protection requirements or priorities (especially if irrigation is considered very important by the LGU)
• Eco-Tourism	Eco-tourism areas (including potential eco-tourism areas) especially in forestlands (e.g., waterfalls, caves, etc). Indicate if there are plans to develop these areas in the next five years.	TWG input	To identify potential non-extractive income generating activities which LGUs/ communities can engage in.
• Others			
C. Bio-physical condition of sub-watersheds			
• *Forest cover*	*Area of natural forests and other forests (using UNEP definition); area of open areas (including grasslands and brushlands)*	Map overlay analysis	To determine potential areas for development; to determine extent of forests that need to be protected/maintained. Relate with population and
• Topography	Areas with slopes > 50% and elevation > 1,000 m.	Map overlay analysis	To determine critical areas for management/rehab. Overlay with forest cover to determine if specific areas for protection and management.

Parameter	Description	Data Source	Use of Data
• Hazard areas	*Flood prone areas, occurrence of flooding in last five years* *Erosion areas (ha)*	Map overlay analysis, TWG input	To determine if flooding problem is worsening through time. Relate with forest cover of upstream areas. Relate with settlements and infrastructure to know where damages may be highest due to flooding or erosion. Will highlight need for rehabilitation investments and joint planning with other LGUs (if headwaters are outside the LGU).
D. Socio-econ conditions in sub-watersheds			
• Total population	*Total population of watershed; (at least two time periods); estimated upland population. Indicate recent trends in lowland-to-upland migration. If possible, indicate projected population after 5 years*	Statistics, TWG inputs	To determine which watersheds have the highest population served, both uplands and lowlands. Will also determine which watersheds will require more investments in social services
• IP community	*IP communities; estimated population residing in forestlands; status of CADC/CADT*	TWG input	To determine IP claims and possible conflicts with other claimants of forestlands.
• Livelihood activities	*Major livelihood activities of lowland and upland population; indicate extent of dependence of households on forest resources*	TWG input	To determine extractive practices that may require regulation/close monitoring; livelihood activities that will require infra/marketing/ investment support. Will highlight
E. Infrastructure Investments			
• Infrastructure support *(roads and bridges)*	*Length of existing roads (all weather road) and number of bridges; road density (per sq km); include road and bridges projects proposed for implementation in the next five years*	Statistics; TWG input	Will determine which sub-watersheds have sufficient/ insufficient infra support for livelihood, social services, forest management activities. Relate with hazard areas to determine which subwatersheds will be affected most by flooding. This will be used in sub-watershed prioritization.

Parameter	Description	Data Source	Use of Data
• *Agricultural infra support*	*The number of irrigation systems and the irrigation service areas (ha) covered; and the communities (upland and lowland population) provided with water supply. Indicate if there are investments being planned in the next five years.*	Statistics; TWG input	Will determine which sub-watersheds will be affected most by flooding or loss of water resources due to environmental degradation (relate with hazard areas). Also relate with significance of (irrigated) agriculture to local economy. This will be used in sub-watershed prioritization.
F. On-site management of forestlands			
• Tenured areas	Types of tenure existing in the sub-watershed; area covered; tenured areas in the next five years (consider tenure instruments on process and the remaining years of those to expire)	Statistics; Map overlay analysis	To determine areas which are under management or which will be under management given existing claims.
• Tenured/allocated areas that are not managed	Identify allocated areas which have approved management plans; allocated areas which are not effectively managed	TWG input	To determine other areas that need to be effectively managed.
• *Open access areas*	*Total open access areas (areas not tenured + allocated but not effectively managed)*	Map analysis	To determine areas that are for allocation.
• Claimants over open access areas	Identify if there are claimants over the open access areas	TWG input	To determine conflicting claims that need to be resolved during land allocation.
G. Issues/Threats			
• Illegal logging			
• Land use/use rights conflicts (including conversion of forestlands)			
• Land claim conflicts			
• Resource use conflicts - within LGU - inter-LGU			
• Peace and order problems			
• Others			

FLUP Module 4: Exposure Trip
For the FLUP-Technical Working Group
Daily Documentation Report
Date: _____

A. Site Observations:

1. Place/Site Visited: _____
2. Type/Name of Project: _____
3. Implementing Agency/Group: _____
4. Component/s of the Project:
_____
_____
5. Special Features of the Project:

Strength	Weaknesses	Opportunities	Threats

7. Project Adaptation/Adaptability (to the community level): _____

8. TAP practices followed _____
_____-

9.Funding Mechanisms: _____

10. Key lessons from the project _____
_____--.

Monitoring and Evaluation Systems/Mechanisms Adopted: _____

10. Recommendations: _____
_____
Submitted by:
Name of LGU: _____
Team Leader: _____
Members: _____
_____
_____
_____
Rapporteur: _____