TRAINING WORKSHOP ON FOREST PLANNING AND FOREST MANAGEMENT IN DIFFERENT FOREST TYPES IN EASTERN AND SOUTHERN AFRICA
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ADEQUACY OF KNOWLEDGE AND SKILLS FOR DEVELOPMENT OF FOREST PLANS

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INTRODUCTION

Forest plan means deciding **what we want to do** with the forest based on **what we can actually do** with it, and then working out **what we must actually do**" (Bourgenot, 1970).

Forest plan today has to ensure the **sustainability of all forest functions** as a whole:

1. Ecological functions: Preservation of biodiversity
2. Socio-economic functions : Production of timber for industrial use
3. Social and cultural functions: Religious sites and cultures of communities

INTRODUCTION

The existing situation on the knowledge and skills for the development of forest plans

Based on the studies in Central and East Africa:

- Most plans reflect **low knowledge and skills** used in developing them. This is because the plans do not consider some important aspects of **forest planning** such as gender equality and use of appropriate sources of information

- It is difficult to assess the adequacy of knowledge and skills for the development of the plans

INTRODUCTION

The presentation aims to **discuss** the **knowledge** and **skills required** for the development of **forest plans**

1. Identify the **knowledge and skills required** for the development of **forest plans**

2. Proposed **expertise** to consider when developing forest plans

KNOWLEDGE AND SKILLS REQUIRED FOR THE DEVELOPMENT OF FOREST PLANS

Knowledge for the development of the forest plan

The various studies that need to be performed prior to establishing the management plan include:

- Management inventory;
- Forest mapping;
- Socio-economic diagnosis;
- Description of the concession's ecological nature;
- Study of the impacts generated by forest harvesting operations;
- Various forestry studies such as: setting (or validation) of volume tables, study of stand dynamics.

KNOWLEDGE AND SKILLS REQUIRED FOR THE DEVELOPMENT OF FOREST PLANS

Knowledge for the development of the forest plan

1. Physical environment

- Geographic characteristics (relief and hydrography),
- Weather,
- Rock and sol characteristic (geology and pedology).

It is important to keep in mind that the useful purpose of this natural environment analysis to working plan officers lies in the interactions between the natural environment and forest management procedures.

KNOWLEDGE AND SKILLS REQUIRED FOR THE DEVELOPMENT OF FOREST PLANS

Knowledge for the development of the forest plan

2. Analysis of the socio-economic environment

- The socio-economic analysis is an integral part of the management plan, and as such is a vital component of a business's management approach in successfully implementing its industrial strategy within the local and regional socio-economic context, both smoothly and peacefully.
- This analysis will be used to draw attention to the characteristics, living conditions and activities of local populations, the sources of any possible conflicts and obstacles, and the features of the relevant use rights.

KNOWLEDGE AND SKILLS REQUIRED FOR THE DEVELOPMENT OF FOREST PLANS

1. Knowledge for the development of the forest plan

History of the operations conducted in the forest area

- Based on the available information, the plan will describe former forestry operations (giving the locations for permits, operating methods, species and volumes harvested, etc.), as well as the methods for managing the forest area (previous management or development plans)

KNOWLEDGE AND SKILLS REQUIRED FOR THE DEVELOPMENT OF FOREST PLANS

2. Skills for the development of the forest plan

To provide an overview of the tools used in sustainable forest management, and enable trainees to organise and supervise the fieldwork required when preparing a forest management plan for forest concessions.

KNOWLEDGE AND SKILLS REQUIRED FOR THE DEVELOPMENT OF FOREST PLANS

2. Skills for the development of the forest plan

Some topics:

- Dendrometry and topography
- Forest mapping
- Operational inventory
- Forest development inventory
- Botany / biodiversity
- Reduced impact logging
- Wildlife – hunting
- Social aspects

KNOWLEDGE AND SKILLS REQUIRED FOR THE DEVELOPMENT OF FOREST PLANS

2. Skills for the development of the forest plan

Mapping

- Mapping is one of the key forest plan tools, providing reliable knowledge not only of the managed forest, but also of field operations as a whole during the preliminary phase of the management plan and later during its implementation.
- The mapping is not fixed, and the resulting cartographic database will be regularly updated.

KNOWLEDGE AND SKILLS REQUIRED FOR THE DEVELOPMENT OF FOREST PLANS

2. Skills for the development of the forest plan

Forest inventories

- The sustainable management of production forests means that these inventories are no longer limited to the simple collection of data required for estimating silvicultural parameters. The taking account of the local population's use of the forest and its products, the study of long-term forest stand dynamics and the monitoring of ecosystems have made it necessary to develop a new multidisciplinary tool:

KNOWLEDGE AND SKILLS REQUIRED FOR THE DEVELOPMENT OF FOREST PLANS

2. Skills for the development of the forest plan

Forest inventories

- Botany, to identify each species in order to estimate the species diversity (biodiversity)
- Dendrometry, to measure the morphological parameters (diameter, height, crown dimensions) in order to evaluate the volume or biomass
- Transect and camera trap, to inventory the fauna (biodiversity)

KNOWLEDGE AND SKILLS REQUIRED FOR THE DEVELOPMENT OF FOREST PLANS

2. Skills for the development of the forest plan

Forest inventories

The management inventory with general objectives:

- Location and evaluation of the harvestable timber potential in the short, medium and long-term, based on the knowledge of the structure and composition of the stands to be managed;
- Performance of a preliminary ecological analysis of forest ecosystems and of their human use, based on the collection of environmental data, wildlife, non-timber forest products (NTFP), biodiversity and signs of human activity.

KNOWLEDGE AND SKILLS REQUIRED FOR THE DEVELOPMENT OF FOREST PLANS

2. Skills for the development of the forest plan

Data processing

- The collection, entry and processing of data results in the drafting of an inventory report. This document describes the field cruise, with maps, diagrams and tables illustrating the distribution of the standing resource in terms of quality and quantity.
- This must act as a genuine decision-making support tool that can be used, together with other studies, to develop the cutting programme for the whole rotation period.

PROPOSED EXPERTISES TO CONSIDER WHEN DEVELOPING FOREST PLANS

Dimensions of knowledge and experience of experts that should be involved in forest planning

- Ecological dimension (biodiversity, water resource, forest resilience, wildlife management, etc.)
- Social dimension (stakeholder engagement and participation, indigenous and local community rights and knowledge, etc.)
- Economical dimension (timber production, non-timber forest product management and value chains, etc.)

PROPOSED EXPERTISES TO CONSIDER WHEN DEVELOPING FOREST PLANS

Dimensions of knowledge and experience of experts that should be involved in forest planning

- Governance and policy dimension (forest laws, forest tenure, forest certification and sustainable management standards, etc.)
- Climate change and resilience dimension (climate change mitigation and adaptation strategies, forest carbon stocks, REDD+ initiatives, etc.)
- Landscape and spatial planning dimension (forest landscape planning and connectivity, protected areas planning, etc.)

CONCLUSION

Enhancing the adequacy of knowledge and skills for the development of forest plans becomes urgent for forest planning and management

- Experts who develop forest plans should be listed, with their qualifications and experience
- Experts involved in forest planning should revise their training in forest planning and those who lack the training should receive it prior to embarking on forest planning

THANK YOU FOR YOUR ATTENTION !