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*the Mpingo Conservation Project*

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**MCP Tanzania Community-Managed  
Forests FSC Group**

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*ED03 VNRC Forest Management  
Training Curriculum*

English – Version 1.0 – 15/10/08

# Contents

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<b>INTRODUCTION .....</b>	<b>3</b>
Aims of the Training.....	3
Topics covered.....	3
<b>INITIAL AWARENESS-RAISING.....</b>	<b>4</b>
PFM & MCP.....	4
Roles & Responsibilities.....	4
Rights & Benefits under PFM .....	4
<b>STAGES OF PFM.....</b>	<b>5</b>
<b>FOREST ACTIVITIES.....</b>	<b>6</b>
<b>PARTICIPATORY INVENTORY .....</b>	<b>7</b>
<b>DRAFTING MANAGEMENT PLAN &amp; BYELAWS.....</b>	<b>9</b>
<b>FOREST CERTIFICATION .....</b>	<b>10</b>
<b>GOOD GOVERNANCE &amp; ACCOUNTING .....</b>	<b>11</b>

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## Introduction

In any type of work training is important to improve efficiency and work quality. The Village Natural resources Committee (VNRC) has the overall responsibility of managing the Village Land Forest Reserve (VLFR) on behalf of the Village, so its members need to be trained in proper forest management. It is important to ensure smooth running of various forest related activities in the village.

The VNRC is elected by and accountable to the Village Assembly and is usually (but not necessarily) a sub-committee of Village Government, reporting to the Village Council. Ideally the memberships should include representation from each of the sub-villages within the Village, and this aspect should be stressed when advising the Village Assembly prior to elections. Members are otherwise generally elected based on characteristics such as being hard working and trustworthy.

This training is mostly conducted through formal sessions in the village centre followed by practical fieldwork in the forest. Except for specific sessions on Participatory Inventory, generally the only materials used are a flipchart and pens (or blackboard and chalk if in a school classroom).

### Aims of the Training

The overall objective of this training curriculum is to impart knowledge on Participatory Forest Management (PFM) to the VNRC members so that they can manage their VLFR properly and in a sustainable way for the benefit of the entire village community.

Specific objectives are:-

1. Raise general awareness on PFM
2. Develop an understanding of the VNRC's roles and responsibilities in the management of VLFR
3. Introduce forest certification
4. Teach practical field skills such as Participatory Inventory
5. Improve village level governance

### Topics covered

1. Introduction and awareness raising
2. PFM concepts and stages in the PFM process
3. Forest activities – fire management, boundary marking, patrolling, etc
4. Drafting the management plan and byelaws
5. Participatory Inventory
6. Harvesting plan
7. Good governance and accounting
8. Forest certification

## Initial Awareness-Raising

This topic goes hand in hand with distribution of awareness raising materials. MCP has prepared various leaflets and booklets aimed at creating awareness to local communities.

### **PFM & MCP**

The first session focuses on raising general awareness on PFM concepts, forest policy and law, and villagers' legal rights over their land. This first training session is an important stage under PFM in which the basic legal requirements and process leading to declaration of a Village Land Forest Reserve are outlined. This session also introduces MCP, its objectives, links to the government authorities, national PFM programme and other national strategies such as MKUKUTA.

### **Roles & Responsibilities**

The session also covers the roles and responsibilities of the VNRC:-

1. Act as managers of the VLFR on behalf of the village community
2. To issue harvesting permits for forest resources
3. To coordinate forest operations
4. To ensure forest patrolling is done regularly
5. Conduct Participatory Inventory and draft harvesting plans
6. To draft annual work plans
7. Oversee harvesting operations
8. Propose and implement village byelaws related to the VLFR management
9. Update the Village on changes to the forest
10. Produce quarterly reports to Kilwa District Council as required for the National Forestry & Beekeeping Database (NAFOBEDA)

### **Rights & Benefits under PFM**

The potential benefits which communities can realise from PFM are taught, then a specific sub-topic on the use of valuable mpingo tree is explained.

The following rights are clearly explained:

- **Income Retention** – villagers can retain 100% of the income from the sale of forest produce.
- **Waiving State Royalties** – in principle the villages do not have to follow government timber royalty rates but can sell their produce at prices chosen by them
- **Timber marking** – villagers have to know that timber harvested, sold and transported from VLFRs shall be marked by a hammer.

## Stages of PFM

This is the most important part of the training. The legal steps required to establish a VLFR are explained. The six steps taught which are required to create a VLFR are;

1. Getting the legal right to manage the Village Land-
2. Elect a Village Natural Resource Committee
3. Mapping the forest boundaries
4. Drafting a forest management plan
5. Prepare Village Forest Bylaws
6. Declaring the VLFR

The VNRC are taught that once the management plan and byelaws have been approved by both the village assembly and the District Council, the VLFR becomes official and the village can start to manage their forest.

# Forest Activities

## *Boundary clearance*

- The need of boundary clearance and its timing

## *Fire fighting*

- Dangers of fire
- Local fire fighting technology e.g. considering wind direction

## *Forest patrolling*

- Need for patrolling
- How often should it be

## *Precautionary Measures*

This session winds up by discussing of the precautionary measures to take while in the forest such as

- Walking in the forest late at night
- Smoking in the forest

# Participatory Inventory

Participatory Forest Inventory is a sort of Participatory Forest Resources Assessment (PFRA). This particular technique was devised by MCP and is focused on assessing the *timber* resources available in a given forest area such as a VLFR. It embodies a participatory approach which fully involves local communities. For more information on the method please see *ED02 Group Guidelines on Forest Assessment and Sustainable Harvesting*. A Swahili translation of the method is provided in *SD04 Participatory Inventory Method*.

The training covers the following topics:-

- Objectives of the inventory
- Transect walk methodology
- How it is conducted
- Data collection
- Participatory data analysis
- Drawing up a harvesting plan
- Calculation of sustainable harvesting quotas

## ***Lesson Plan***

1. Review the objective of the stocks assessment: it is to get a good idea of how many harvestable trees there are in the VLFR so that harvesting rules can be made to manage this resource properly.
2. Introduce the ideas of sampling (measure a small area and multiply it up to save time) and transects in a simple way. Villagers readily get these ideas if they are explained non-technically.
3. Explain how foresters measure trees. First explain the standard height of 130cm for CBH and show everyone where this comes on them when wearing their field shoes.
4. It is easier for villagers to use tailor's tapes to measure CBH (CBH minima are given in the Forest Act), rather than specialist diameter tape. Use ready-made forestry diagrams to show where to make measurements. At this point make sure everyone knows where the numbers are on the tape e.g. 30cm is probably written at the 29.5cm point and everything from this point to where it says 31cm should be recorded as 30cm.
5. Practice measuring nearby trees (literate villagers to record on paper). Compare the measurements and explain problems. Explain that for this work to be good trees should be measured in the right way i.e. no systematic error, but a 1cm random error is not a problem. Try to avoid having round numbers i.e. where villagers prefer results of exactly 50cm, 80cm, 110cm etc rather than having 51cm, 79cm, 103cm etc. It is best not to round figures off as villagers with little schooling will tend to round figures down i.e. 59cm becomes 50cm, not 60cm, so it is better to avoid this complication stick to exact measurements.
6. Check everyone knows about centimetres and metres i.e. 100cm=1m, 50cm=1/2m. Make sure people likely to be doing the recording can confidently convert e.g. 250cm to 2.5m. Keep checking the maths during the fieldwork.
7. Explain the use of 3 different colours of paint according to different size classes being red, green and blue. For mpingo, red would be used for any tree just below but came close to the legal minimum harvestable CBH of 76cm<sup>3</sup>. Green for trees with a CBH between 76 cm<sup>3</sup> and 151 cm<sup>3</sup> and blue for trees with a CBH of 152 cm<sup>3</sup> and above. An explanation should be made to the villagers that the forest's structural composition needs to be maintained.
8. Show villagers how to record results. Do record the actual CBH as it is useful information later, although all of the analysis in the village will be done just on size class counts.

9. Explain the transect width. Anything within 5m either side of the line walked is in the transect. Anything beyond 5m exactly is out. For trees that are on the boundary, where the middle of the stem is determines whether the tree is in or out. Practice guessing whether trees are in or out. Walk down a track practising and then measuring using a tape, until everyone is good at judging the transect width.
10. Go to the field, taking a game guard if necessary. Explain how a compass is used to show the transect route, choosing a tree or landmark in the distance to walk towards. Ensure that the compass is always held flat. It might be easier to always walk north or south, and it's probably best to avoid explaining bearings unless working with someone with lots of schooling who enjoys technology! (Some villagers love equipment.)
11. Practice walking a transect, measuring, estimating timber and recording. Rotate jobs in the team. Some people will not be able to fill all the roles, but it is good for several people to know how to do each job well.
12. When you are ready begin collecting data. Plan the start and end point of your transects using a map of the VLFR that is to scale. You should have one of these from when the VLFR was surveyed. Each group will cover between 2 and 6km in each day, depending on how difficult the area is to walk through, and how many timber trees there are. Plan about 8 transects that are spaced out across the FMU. Use beacons, stream crossings, tracks and other features as your start and end points. Do not **deliberately** plan transects to pass through areas known to have lots of timber trees. Doing so is cheating, and will completely invalidate the assessment.
13. Check that a game guard will be available for each group, if necessary.
14. Use a compass to walk your transects. They need to be in a straight line. If necessary train the team members how to use these. Remember that metal poles affect compasses. Also make sure that your compass is held completely flat when you are using it. Pick a spot in the distance that is in the correct direction. Tell your team to walk towards this. Do not be tempted to keep looking at the compass, as surprisingly this makes you walk in a zigzag line! It is probably necessary to use a GPS to locate your start points, unless lots of team members know where all the beacons are.
15. For the main timber species that you want to harvest you should aim to count 40 trees on your transects to get a good estimate of the total stocks. Keep planning and walking additional transects until you have got 40 of all of the important timber trees. For example if your FMU is for harvesting mpingo, mninga jangwa and mkongo and after the first day you have only recorded 35 timber trees in total then this is not enough. If after the second day you have recorded 41 mpingo trees, but only 23 mninga and 17 mkongo then you should keep going, recording all the timber trees until your total for all of the key species you want to harvest is over 40.
16. You may not be able to sustainably harvest rarer trees. If you only find a few of any species on your transects then think carefully about whether that species should be logged.

Materials required: 20m+ tape measure, 3m bamboo pole, chalk, flipchart paper, flipchart board, 1 pack marker pens, photocopied diagrams of where to measure CBH, pen and cheap notebook per team member, compass, GPS and spare batteries per group, game guard per group if necessary.

## **Drafting Management Plan & Byelaws**

The management plan is the controlling document of all proposed management activities for the forest under consideration. The management plan indicates various activities to be performed on what time and the people responsible whether the VNRC or the village members or with assistance from the government, other government stake holders.

The byelaws, which are annexed to the Management Plan, are set of local regulations prepared by the VNRC and approved by the village assembly, Ward Development Committee and finally endorsed by the District Full Council. Members of the VNRC are trained on how to draw up the management plan and byelaws using the existing templates already prepared by MCP.

# Forest Certification

On top of the basic PFM steps, VNRC members are trained on forest certification. Topics covered under this are:-

1. Introduction to forest certification
2. Why forest certification
3. Types of forest certification
4. MCP group certificate structure
5. Specific requirements
6. Membership rules
7. FSC Principles & Criteria

## Good Governance & Accounting

Good village governance, proper management and record keeping of village forest funds are crucial if PFM is to benefit the wider village community.

This is a two-day session whereby the VNRC and other village leaders are trained on how to keep financial records properly and how to be accountable.

- Members are trained how to keep financial records so as to implement simple accounting procedures in the village.
- Villagers are trained on how to prepare simple annual accounts and to present them to the Village Assembly. These accounts will separate out income and expenditure into a number of easy-to-understand categories.