Village Forestry Training Manual

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Provincial Agriculture and Forestry Office  
Provinces of Savannakhet and Khammouane  
Lao People’s Democratic Republic  
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The Village Forestry Training Manual has been developed through the Forest Management Sub-Program of the Forest Management and Conservation Program (FOMACOP), which operated in 1995-2000 as a collaborative effort of the Government of Lao PDR, Government of Finland, and the World Bank. The manual was completed during the Village Forestry Sustaining Phase (2000-2001) after the regular phase of FOMACOP ended in September 2000.

Village forestry training is an important activity in FOMACOP. It is necessary to enhance the capabilities of state forestry staff and villagers in effectively performing their new roles and responsibilities as partners in planning, implementing, and managing village forestry activities. It is essential that they are provided with adequate knowledge and skills on the social, technical, and organizational aspects of village forestry through a combination of classroom and on-the-job training.

In FOMACOP, village forestry training courses are designed and conducted based on the results of a training needs assessment. The timing for designing, planning, and conducting training courses is synchronized with the implementation schedule of village forestry field activities. This means that the knowledge and skills acquired by state forestry staff and villagers from the training are immediately applied in the field. The participants’ application of these acquired knowledge and skills are immediately monitored and evaluated and the results are used to improve the design and conduct of subsequent training courses. All training courses, modules, and lessons have been field tested and improved based on feedback from the participants and their performance evaluations. The "pyramid" approach in training is adopted whereby the Provincial Agriculture and Forestry Office (PAFO) trainers, District Agriculture and Forestry Office (DAFO) extension workers, and FOMACOP local advisers are trained simultaneously by the FOMACOP international advisers. Then, the PAFO trainers assisted by the DAFO extension workers and supervised by the FOMACOP advisers conduct training courses for villagers.

This Village Forestry Training Manual is a compilation of twenty six (26) Village Forestry Training Guides developed by FOMACOP from April 1995 to May, 2000. These training guides were used by FOMACOP in conducting over eighty (80) training sessions and in providing over 26,000 person days of training to PAFO trainers and controllers, DAFO extension workers, villagers, and others.

The English version of the Village Forestry Training Manual was co-written by Dr. Manuel Bonita, Village Forestry Adviser (Village Forest Management) and Mr. Edwin Payuan, Village Forestry Adviser (Village Organizing). Some inputs were also provided by Dr. Marko Katila, Chief Technical Adviser of FOMACOP in 1996-2000 and Ms. Vaneska Litz, Village Forestry Adviser (Village Development). The Lao version was produced by Mr. Somsakoun Souvannasing, FOMACOP Provincial Coordinator and Mr. Bouahong Phantanousy, FOMACOP National Project Director.
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Introduction

Purpose of the Manual

*Village forestry* is defined as the sustainable management and use of forests and forest lands through a partnership between state forestry state and organized villagers to sustain the flow of benefits, which are to be fairly shared by the villagers, the state forestry agencies, and the rest of the national community.

Successful planning and implementation of village forestry requires a good understanding and adequate knowledge and skills on all aspects of village forestry (refer to the Village Forestry Handbook for the overview of village forestry). While FOMACOP has developed numerous village forestry training courses designed for *sustainable management of production forests under a partnership between the state forestry staff and organized villagers*, many of these courses can also be applicable in the sustainable management of other categories of forests (i.e. protection forest, conservation forest, rehabilitation/degraded forests and barren forest land) with similar ecological and socio-economic conditions. However, it is advisable to undertake the necessary modifications and refinements to adapt to specific forest resource conditions and management objectives.

The main purpose of this Village Forestry Training Manual is to provide a “package of training courses, modules, and lessons” that can be used as reference in designing, planning, and conducting training programs on sustainable management of forests with active participation of villagers. The courses, modules, and lessons are aimed at providing the participants (e.g. PAFO trainers, DAFO extension workers, villagers, and others) with adequate knowledge and skills on the social, technical, and organizational aspects of village forestry.

This manual is intended for trainers, extension workers, students, practitioners, learning and training institutions, government agencies and non-governmental organizations dealing with sustainable forest management with active participation of the villagers.

This manual is designed and best suited to support the *sustainable management of production forests involving a partnership between state forestry staff and organized villagers*. It is not intended to be used and adopted as a single prescriptive package of courses, modules and lessons for all types of sustainable participatory forest management projects. Users of this manual are advised to take caution and select only the specific courses, modules and lessons that they may find suitable and applicable in planning and conducting their own training courses. They are encouraged to modify and adapt the courses, modules, and lessons according to their respective conditions, needs, and requirements. They can select a combination of modules and lessons to form a course. They can decide on the appropriate sequencing of courses and time allocation depending on the level of understanding of participants, available resources, needs, and requirements. It is advisable to use this manual in complementation with the Village Forestry Handbook also prepared by FOMACOP.
The FOMACOP training approach

Village forestry is a concept which is new to forestry staff and villagers in the Lao PDR. It requires new tasks, knowledge, skills and attitudes of the village forestry partners, i.e. the villagers who will plan, implement, and manage village forestry activities, and the forestry staff who will train and support the villagers. Training is therefore important for both villagers and forestry staff. They need to acquire the basic knowledge, practical skills, and proper attitudes to effectively perform their new roles and tasks, so that they achieve the Expected outcomes and benefits from village forestry. Hence, village forestry training is an indispensable component of FOMACOP.

The main features of the FOMACOP training approach are briefly characterized as follows:

• Village forestry training courses are designed and conducted based on the results of a training needs assessment.

• A combination of participatory training methods and techniques are used giving emphasis on "learning by doing". Such methods include role plays, peer teaching or peer tutoring, group process exercises and games, demonstrations, practicum, field visits, individual and group exercises, and others. Adult and experiential learning techniques and the village-to-village learning approach (e.g. cross village visits) are also adopted.

• Training courses, modules, and lessons are developed giving emphasis on a well thought-out, carefully–phased and logically sequenced processes or "step-by-step" approach on how to conduct village forestry and other related activities. They are designed to provide forestry staff and villagers the opportunity for "iterative learning" which means that participants review and make use of past modules and lessons as inputs and reference in learning new training lessons. Training courses are designed for 4-5 days. Some training courses consist of a combination of two or more topics. The modules and lessons of each of the training courses are consolidated in a Village Forestry Training Guide. These training guides are further consolidated into this Village Forestry Training Manual.

• The timing for designing and conducting training courses is synchronized with the schedule of field implementation of village forestry activities. This means that the knowledge and skills acquired by state forestry staff and villagers from a specific training are immediately applied in the field. Classroom training sessions are immediately reinforced by on-the-job training and practical application of the acquired knowledge and skills. The participants’ actual application of acquired knowledge and skills in the field are immediately monitored and evaluated and results are used to improve the design and conduct of subsequent training courses.

• Each training course ends with the preparation of a simple action plan that indicates the activities that the participants have to undertake immediately after the course. The estimated completion dates of each of the activities are indicated in a simple planning calendar. The action plans are used as one of the bases for monitoring, assessing, and evaluating the actual application of knowledge and skills acquired by the participants from the training course.
• A pyramid "training of trainers" approach is adopted whereby PAFO trainers, DAFO extension workers, and FOMACOP local advisers are trained at the same time. Then the PAFO trainers assisted by the DAFO extension workers conduct training for villagers supervised by FOMACOP advisers. Through this approach, the trainers are able to replicate the training on a large scale and are able to reach and train a substantial number of villagers in village forestry.

• Training is complemented by a continuing participatory rural appraisal (PRA) and extension. PRA results are used as input in designing and conducting training courses. Extension methods are adopted to follow through the application of knowledge and skills acquired in training courses.

Overview of the Manual

The Village Forestry Training Manual is a compilation of training guides developed and utilized by FOMACOP in conducting village forestry training courses.

The manual consists of two (2) volumes, namely:

Volume 1- Courses on Participatory Training, Extension, and Village Organizing - This volume is comprised of fourteen (14) training courses on: training of trainers; village forestry extension; participatory rural appraisal; village organizing; forming and operating organizations for village forestry (i.e. village forestry core groups, village forestry committees, village forestry associations, inter-village forestry committees, Group of VFCs/VFAs, etc.) at the forest management unit (FMU) and district level; sharing the costs and benefits of village forestry; support to village development; and participatory monitoring and evaluation in village forestry.

Volume 2 - Village forest management planning and operations – This volume consists of ten (10) training courses on: allocating and delineating land for the FMU; village forest inventory; village forest management planning and contract; pre-harvest inventory; annual village forestry operations planning; pre-harvest operations; timber harvesting; post-harvest operations; and establishing rules on other forest management operations such as forest protection and conservation including the customary use of the forest.

The manual is composed of training courses, modules and lessons. Each course consists of a series of training modules. Each course starts with a course introductory page (blue paper) describing the course title, introduction, and contents of the training modules. Similarly, each training module begins with a module introductory page (green paper) describing the module title, introduction, and content of the lessons. Each lesson consists of a title, learning objectives (e.g. what is expected from the participants at the end of the lesson), methods, materials, time, process, learning notes (serve as reference and guide for the trainer-facilitator in giving a brief lecture to summarize the lesson and to complement or to fill the gap in participants’ understanding of the lesson) and handouts (serve as training aid materials and are distributed to participants). The learning notes and handouts are self-contained in their respective lessons for quick reference and access.
Course 1.1
Training of trainers

Introduction

The course is aimed at strengthening the capabilities of PAFO trainers to plan, prepare, conduct, and evaluate village forestry training courses for villagers and other state forestry staff.

The lessons are designed to: (a) provide PAFO trainers with a better understanding of the learning process with emphasis on adult and experiential learning; (b) equip PAFO trainers with adequate knowledge and skills in undertaking the different stages of training (i.e. planning, preparation, and presentation) and in using selected participatory training methods and techniques; and (c) introduce PAFO trainers to the participatory training principles and practices in village forestry.

Contents

The course consists of four modules:

Module 1.1.1 Learning process- In this module, the participants are provided with adequate understanding of the learning process and the conditions needed for effective learning with emphasis on adult learning.

Module 1.1.2 Training process- The participants learn the different stages of training such as planning, preparation, and presentation.

Module 1.1.3 Participatory training- The participants are provided adequate knowledge and skills in conducting and facilitating a successful participatory training program. They are introduced to the participatory training principles and practices in village forestry.

Module 1.1.4 Selected participatory training methods and techniques - The participants learn how to select and use selected participatory training methods and techniques.
Module 1.1.1  
Learning process

Introduction

The module is aimed at providing the participants with a better understanding of the learning process and the conditions necessary for effective learning with emphasis on adult learning.

Contents

The module consists of two lessons:

Lesson 1.1.1.1 *Understanding the learning process*- In this lesson, the participants acquire a better understanding of the process of learning and the conditions necessary for effective learning.

Lesson 1.1.1.2 *Understanding adult learning*- The participants are equipped with a better understanding of the principles of adult learning that are essential in planning and conducting a successful participatory training program.
Lesson 1.1.1.1
Understanding the learning process

Objective

At the end of the lesson, the participants should be able to explain the process of learning and the conditions necessary for effective learning.

Methods

Group discussion and lecture

Materials

Large brown paper, marker, and masking tape

Time

One hour

Process

1. Form the participants into small groups. Ask each group to discuss their own understanding of the learning process using the following guide questions:

   • What is learning?
   • What are the conditions necessary for effective learning?

2. Each group writes the important points of the discussion on a large brown sheet of paper and makes a brief presentation. Group presentations are followed by an open forum.

3. Summarize the important points of the group presentations and fill the gaps in participants’ understanding of the learning process by giving a brief lecture using the learning notes.

Learning notes

What is learning?

Learning is a personal process in terms of the learner’s own needs and interests. It is a process whereby the learner reacts to a message and it involves a change in one’s behavior (e.g. mental, emotional, and physical). Learning is a process of self-change and self-development through experience.
What are the necessary conditions for effective learning?

- **Involvement** – People will more likely remember a solution or action they have worked out by themselves rather than one that has been worked out for them.

- **Readiness** – Learning will take place more quickly if people want to learn and are ready to learn.

- **Reinforcement** - Repetition and meaningful exercises in a non-hostile environment will fill the gaps from other learning.

- **Intensity** - Intense and real experiences are likely to make an impression by getting the attention and strengthening the impact.

- **Association** - Learning that is related to one’s own experiences is more likely to be remembered.

- **Distribution** - Learning that is distributed over several short lessons is more effective than if it is combined into a single lengthy lesson.

- **Effectiveness** - Learning is more likely to occur when it is satisfying than when it is embarrassing or annoying. Appreciation encourages learning.

- **Capacity** - Most people remain at a stage that is far below their real capacity for learning, working, and achieving.
Lesson 1.1.1.2
Understanding adult learning

Objective
At the end of the lesson, the participants should be able to describe adult learning

Methods
Group discussion and lecture

Materials
Large brown paper, marker, and masking tape

Time
45 minutes

Process
1. Form the participants into groups. Ask each group to discuss their own understanding of adult learning using the guide question:
   • What is adult learning?
   • What are the factors to be considered in adult learning?

2. Each group writes the important points of the discussion on a large brown sheet of paper and makes a brief presentation. Group presentations are followed by an open forum.

3. Summarize the important points of the group presentations and fill the gaps in participants’ understanding of adult learning by giving a brief lecture using the learning notes.

Learning notes

What are the factors to be considered in adult learning?

• Adults are voluntary learners. They perform best when they have decided to participate in a training activity for a particular reason. They have a right to know why a topic or a session is important to them.

• Adults have usually come to a training activity with an intention to learn. If this motivation or expectation is not met, they will stop participating in training courses.
• Adults have experience and can help each other to learn (e.g. peer tutoring or peer teaching). Encourage the sharing of experience and training sessions will become more effective

• Adults learn best in an atmosphere of active involvement and participation

• Adults learn best when it is clear that the content of the training is close to their own tasks or jobs. Adults learn best with “real” experiential approaches.

• An adult’s learning is mixed with many other activities and responsibilities. Everyday pressure at home can cause adults not to be attentive for some training periods that break the concentration necessary for effective learning.
Module 1.1.2
Training process

Introduction

The module is aimed at providing the participants with a better understanding of the training process: planning, preparing, and presenting a training program.

Contents

The module consists of four lessons:

Lesson 1.1.2.1 Understanding the stages of training- In this lesson, the participants learn the different stages of training: planning, preparing and presenting a training program.

Lesson 1.1.2.2 Planning the training - The participants are provided with knowledge and skills in planning a training which involves (a) job and trainee analysis, (b) training needs assessment, and (c) determination of training objectives.

Lesson 1.1.2.3 Preparing a training program - The participants learn how to prepare a training program which involves (a) selecting and organizing the content of the training, (b) selecting training methods, techniques, and teaching aid materials (c) preparing a lesson plan, and (d) identifying and planning the training evaluation.

Lesson 1.1.2.4 Presenting a training program- The participants acquire knowledge and skills in presenting a training program which involves (a) conducting the training, (b) evaluating the training, and (c) reviewing and revising the training program.
Lesson 1.1.2.1
Understanding the stages of training

Objective

At the end of the lesson, the participants should be able to discuss the stages of training

Methods

Group discussion and lecture

Materials

Large brown paper, marker, and masking tape

Time

One hour

Process

1. Form the participants into groups. Ask each group to discuss their own understanding and experience in training using the guide question: What are the different stages of training?

2. Each group writes the important points of the discussion on a large brown sheet of paper and makes a brief presentation. Group presentations are followed by an open forum.

3. Summarize the important points of the group presentations and fill the gaps in participants’ understanding of the different stages of training by giving a brief lecture using the learning notes.
What are the stages of training?

A. Planning
1. Job analysis
2. Trainee analysis
3. Training needs assessment
4. Determine training objectives

B. Preparation
5. Select and organize content
6. Select training techniques, methods, aids
7. Prepare lesson plan
8. Plan evaluation

C. Presentation
9. Conduct training
10. Evaluate training
11. Review and revise

Lesson 1.1.2.2
Planning a training program

Objective

At the end of the lesson, the participants should be able to explain how to plan a training program.

Methods

Group discussion and lecture

Materials

Large brown paper, marker, and masking tape

Time

Two hours

Process

1. Form the participants into groups. Ask each group to discuss their own understanding and experiences in planning a training program using the guide question: How do you plan a training program?

2. Each group writes the important points of the discussion on a large brown paper and makes a brief presentation. Group presentations are followed by an open forum.

3. Summarize the important points of the group presentations and fill the gaps in participants’ understanding of planning a training program by giving a brief lecture using the learning notes.
How do you plan a training program?

A. Planning

1. Job analysis
   - What does the worker do?
   - Why?
   - How?
   - How well?

2. Trainee analysis
   - Who/where are they?
   - Special characteristics
   - Level of knowledge/skills/experience?

3. Training needs assessment
   - List weaknesses and ways of overcoming them

4. Determine training objectives
   - What has to be done?
   - Under what conditions?
   - Up to what standards?
   - How will it be evaluated?


Planning a training course

a. Job analysis – In conducting a job analysis, start by looking at the job description. Use it as a guide only and do not take it for granted that everything in the job description is being done. List the tasks required for the job. Tasks are expressed in terms of what people do.

b. Trainee analysis – This involves the gathering of information regarding the profile of the trainees and others that may influence the training as follows:
• Physical - age, gender, size of group, location of training
• Educational - educational attainment, knowledge, skills
• Socio-economic - occupation, status, position
• Work experience - on the job training and seminars attended
• Psychological - attitude, beliefs, values, interest and motivation

The above information can be collected through interviews, questionnaires, group meetings, conversations, and other means. Using a combination of these methods is recommended.

c. Training needs assessment – When the job and trainee analysis is completed, the trainer assesses the present knowledge and skills and should determine the training needs of trainees. The training needs assessment (TNA) serves as the basis for designing and developing appropriate training courses that will provide the necessary knowledge and skills to the participants so that they are able to effectively perform their duties and responsibilities (see handout for sample of a TNA form)

d. Determine training objectives – Training objectives describe what trainees should be able to perform at the end of their training, tasks that they could not do previously. Therefore, trainee analysis and training needs assessment should be done properly before training. A good training objective must:

• Describe the final results
• Be specific and precise
• Describe a change that is measurable or observable
• List criteria against which success can be measured
• Mention the essential conditions under which the results can be achieved
• Specify an end point

Before a trainer starts writing training objectives, the following should be considered:

• Audience – Who are you going to train?
• Behavior – What type of change do you expect after the training?
• Condition – When and under what conditions do you expect this change to occur?
• Degree – How much change do you expect and how will you determine the change?
Handout no. 1.1.2.2.1 - Sample of a training needs assessment form

Name of staff/villager: ____________________________  Position: ____________________________
Office/Village: ____________________________  Name of organization: ____________________________
Conducted by: ____________________________  Date conducted: ____________________________

<table>
<thead>
<tr>
<th>Task/Responsibilities</th>
<th>Required by the task</th>
<th>Already possessed by villagers</th>
<th>Additional needed by villagers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Knowledge</td>
<td>Skills</td>
<td>Knowledge</td>
</tr>
</tbody>
</table>

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Lesson 1.1.2.3
Preparing a training program

Objective

At the end of the lesson, the participants should be able to explain how to prepare a training

Methods

Group discussion and lecture

Materials

Large brown paper, marker, and masking tape

Time

Two hours

Process

1. Form the participants into groups. Ask each group to discuss their own understanding and experiences in preparing a training program using the guide question: *How do you prepare a training program?*

2. Each group writes the important points of the discussion on a large brown sheet of paper and makes a brief presentation. Group presentations are followed by an open forum.

3. Summarize the important points of the group presentations and fill the gaps in participants’ understanding in preparing a training program by giving a brief lecture using the learning notes.
Learning notes

How you prepare a training program

B. Preparation

5. Select and organize content
   - Study sources of information
   - Decide on content
   - Organize content in logical sequence

6. Select training techniques, methods, aids
   - Decide on appropriate training techniques
   - Select suitable methods
   - Decide on training aid materials required

7. Prepare lesson plans
   - Decide how each lesson is to be presented
   - Set out each lesson step by step
   - Allocate times for each activity

8. Plan evaluation
   - Decide on information required
   - Decide when this should be collected
   - Study methods of gathering information
   - Select methods to be used
   - Prepare guide questions which have to be answered

Preparing for a training course

a. Select and organize the content of the training

After analysing the training objectives, determine the content of the training. This covers the detailed knowledge, skills, and attitude required on topics that support the training objectives. When selecting the content of training, always remember its purpose and prepare a content outline.

The contents should be organized and arranged in a logical sequence. Contents can be organized in different ways, as follows:
- **Job performance order** – arranged in the order in which tasks are performed
- **Problem order** – arranged in an order you would use to solve a problem
- **Simple to complex** – arranged according to what the participants need to know before more complex ideas are introduced

When the contents of the training have been selected and organized, the trainer can then determine the training methods to be used to make the training effective and enjoyable.

b. Select training techniques, methods, and aid materials

There are different training methods, techniques, and aids that can be used, as follows:

**To transfer knowledge**
- Group discussions (questions and answers)
- Group or individual exercises
- Lectures (with handouts)
- Forum
- Panel discussion
- Films, videos, etc.

**To practice problem solving**
- Case studies
- Brainstorming
- Discussion groups
- Group and individual exercises

**To develop skills**
- Demonstration and practicum
- Role play
- Peer teaching (Peer tutoring)
- Structured learning exercises

**To change attitudes**
- Role play and drama spots
- Group discussion
- Structured learning exercises
• Group dynamic exercises
• Demonstrations

c. Prepare a lesson plan

A lesson plan should list the steps and activities including materials needed in the training. It should be planned by writing an outline of what is to be taught and the methods to be used. Time should be allocated to the various activities. The places where the training session will take place and the materials and equipment needed should be checked. Before a lesson plan is written, the following questions should be answered:

• What training methods will be most suitable to use?
• What style of presentation is best?
• How will new information be introduced?
• What audio-visual aids materials and equipment will be needed?

d. Plan evaluation

Evaluation is a means of identifying the strengths and weaknesses of a particular training activity with the aim of improving, expanding, modifying, canceling or keeping it unchanged if it is effective. The questions most often asked about training, which an evaluation can help provide answers to, are as follows:

• How effective is the training?
• Is the training worth the resources? (e.g. money, time and effort)
• How can the training be improved?

There are four (4) types of evaluation as follows:

• **Reaction evaluation** - This measures the reaction of the participants themselves to the training.

• **Learning evaluation** - This measures changes in the participants’ knowledge, attitudes, skills, and practices. Results from a pre-training test (pre-test) is compared with those from a post-training test (post test).

• **Performance evaluation** - This measures how the participants’ job performance has changed, after a period of time, as a result of training. Performance before training is compared with that after training.

• **Impact evaluation** - This measures the effectiveness of the training by assessing the type and degree of change which the participants have had on the organization or the target groups (i.e. villagers) with which they have worked.

If all these four types of evaluation are carried out effectively, they will show whether or not the training program is effective or if the resources have been spent and used well. They will also provide information on which areas of the training should be improved. However, in reality, it is rarely possible to use all four (4) types of evaluation due to limited resources. The trainer is responsible for determining which type of evaluation will be conducted.
Lesson 1.1.2.4
Presenting a training program

Objective

At the end of the lesson, the participants should be able to explain how to present a training program

Methods

Group discussion and lecture

Materials

Large brown paper, marker, and masking tape

Time

Two hours

Process

1. Form the participants into groups. Ask each group to discuss their own understanding and experiences in presenting a training program using the guide question: How do you present a training program?

2. Each group writes the important points of the discussion on a large brown sheet of paper and makes a brief presentation. Group presentations are followed by an open forum.

3. Summarize the important points of the group presentations and fill the gaps in participants’ understanding in presenting a training program by giving a brief lecture using the learning notes.
Learning notes

How do you present a training program?

<table>
<thead>
<tr>
<th>C. Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Conduct training</td>
</tr>
<tr>
<td>- Follow your lesson plans closely</td>
</tr>
<tr>
<td>- Use a variety of participatory methods</td>
</tr>
<tr>
<td>- Encourage participation</td>
</tr>
<tr>
<td>- Use demonstrations, models, visual aids</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10. Evaluate training</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Conduct planned evaluation</td>
</tr>
<tr>
<td>- Summarize results</td>
</tr>
<tr>
<td>- Write evaluation report</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11. Review and revise</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Summarize training</td>
</tr>
<tr>
<td>- Review based on evaluation results</td>
</tr>
<tr>
<td>- Discuss with other trainers involved</td>
</tr>
<tr>
<td>- Revise and improve training</td>
</tr>
</tbody>
</table>


Presenting a training course

**Conducting a training program**

To be a good trainer, the appropriate knowledge, skills, attitude, and experience are needed. Experience comes with practice, and knowledge, skills and attitude come with evaluation.
Here are some helpful hints in conducting a training course:

- Get to know the participants – their needs, educational backgrounds, work experience, humor, etc.
- The discipline of going back to basics is a learning experience.
- Little of what we passively listened to is remembered. People learn best by doing things. The more participation you have in your training, the better it will be.
- The more variety of participatory methods and techniques you can get into your training, the more interesting it will be.
- A good basis for training is “tell-show-ask-discuss-do-review.”
- A good demonstration will save you a lot of talking.
- Allow plenty of time for participants to practice new skills.
- Evaluations are important and must be taken seriously. The trainer must be ready to change or improve the content of the course and training methods used. The trainer must be flexible in his attitude.
- Use imagination in designing a training program.
- Make your training lively and enjoyable. Make it interesting and have fun.

☑ Evaluating a training program

The trainer selects the most appropriate type(s) of evaluation (as discussed in lesson 1.1.2.3) and plans it before training begins. See handout (below) showing sample of a training evaluation form.

When the evaluation is completed, results should be reported for further discussion and action. The most important action to take after a training evaluation is to decide whether to cancel, improve, modify, or retain the training.

☑ Reviewing and revising a training program

Training should be dynamic. Each group of participants is different so make your training flexible and relevant to the participants’ needs. Constantly review, revise, and experiment with your training methods-- it is the only way to keep your training fresh, vibrant, and interesting.
Handout 1.1.2.4.1 - Sample of a training evaluation form

Title of the training course______________________________________________________________
Dates of training __________________ Place of training ________________________________
(Instruction: Encircle the number that best describes your evaluation rating)

<table>
<thead>
<tr>
<th>CONTENT</th>
<th>Very relevant</th>
<th>Not relevant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Relevance of the course to your work</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. Level of instruction</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. Time allocation</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. Additional comments on the contents of the course</td>
<td>____________________________</td>
<td></td>
</tr>
<tr>
<td></td>
<td>____________________________</td>
<td></td>
</tr>
<tr>
<td></td>
<td>____________________________</td>
<td></td>
</tr>
</tbody>
</table>

5. What topics or lessons did you like most? ___________________________________________
| 6. What topics or lessons did you like least? __________________________________________
| |
| A. TRAINING METHODS |

<table>
<thead>
<tr>
<th>Effectiveness of the training method used</th>
<th>Very effective</th>
<th>Not effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall methods</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Specific method</td>
<td>Very effective</td>
<td>Not effective</td>
</tr>
<tr>
<td>Lecture-discussion</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Group work</td>
<td>Very effective</td>
<td>Not effective</td>
</tr>
<tr>
<td>Role play</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Field trip &amp; practicum</td>
<td>Very effective</td>
<td>Not effective</td>
</tr>
<tr>
<td>Demonstration</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Group Dynamic exercises &amp; games</td>
<td>Very effective</td>
<td>Not effective</td>
</tr>
<tr>
<td>Others, pls. specify</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

8. Additional comments on training methods used________________________________________
|                                                                                          |
B. TEACHING AIDS AND HANDOUTS

9. Effectiveness and usefulness of teaching aids

9.1 Flipchart

<table>
<thead>
<tr>
<th>Very effective</th>
<th>Not effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

9.2 Handouts

<table>
<thead>
<tr>
<th>Very effective</th>
<th>Not effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

9.3 Overhead projector transparencies

<table>
<thead>
<tr>
<th>Very effective</th>
<th>Not effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

9.4 Posters

<table>
<thead>
<tr>
<th>Very effective</th>
<th>Not effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

9.5 Others, pls. specify__________

<table>
<thead>
<tr>
<th>Very effective</th>
<th>Not effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

10. Additional comments on teaching aids and handouts

C. ORGANIZATION OF TRAINING

11. How was the overall organization of the training course?

<table>
<thead>
<tr>
<th>Very good</th>
<th>Very poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

11.1 Conduciveness of training venue

<table>
<thead>
<tr>
<th>Very good</th>
<th>Very poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

11.2 Quality of transport facilities

<table>
<thead>
<tr>
<th>Very good</th>
<th>Very poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

11.3 Quality of accommodation

<table>
<thead>
<tr>
<th>Very good</th>
<th>Very poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

11.4 Quality of food (if provided)

<table>
<thead>
<tr>
<th>Very good</th>
<th>Very poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

12. Additional comments on organization of ________________________________

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
Module 1.1.3
Participatory training

Introduction

The module is aimed at providing the participants with knowledge and skills in conducting and facilitating a successful participatory training program. The participants are introduced to the training principles and practices in village forestry.

Contents

The module consists of three lessons:

**Lesson 1.1.3.1 Requirements for a successful participatory training program** - In this lesson, the participants are provided a better understanding of participatory training and the requirements for planning and conducting a successful participatory training program.

**Lesson 1.1.3.2 Factors to consider in facilitating a participatory training program** - The participants learn some of the factors to be considered in facilitating participatory training and what makes a good trainer-facilitator.

**Lesson 1.1.3.3 Understanding the training principles and practices in village forestry** - The participants acquire a better understanding of the principles and practices involved in village forestry.
Lesson 1.1.3.1
Requirements for a successful participatory training program

Objective

At the end of the lesson, the participants should be able to explain the requirements for conducting a successful participatory training program.

Methods

Group discussion and lecture

Materials

Large brown paper, marker, and masking tape

Time

Two hours

Process

1. Form the participants into groups. Ask each group to discuss their own understanding of participatory training using the following guide questions:
   - What is participatory training?
   - What are the requirements for a successful participatory training program?

2. Each group writes the important points of the discussion on a large brown sheet of paper and makes a brief presentation. Group presentations are followed by an open forum.

3. Summarize the important points of the group presentations and fill the gaps in participants’ understanding of participatory training and the requirements for conducting a successful participatory training program by giving a brief lecture using the learning notes.

Learning notes

What is participatory training?

Participatory training is “learning through sharing and doing.” It is often referred to as action or experiential learning. Participants are involved in activities designed to share experiences and discover new ideas or information. It can be used with groups of different sizes. Participatory training is effective because trainees are more likely to remember a solution or action they have worked out by themselves rather than one that is worked out for them.
What are the requirements for a successful participatory training program?

- **Physical environment**, i.e. room and seating arrangement for interaction (see handout).
- **Training climate (getting started)**, i.e. allow time for getting acquainted to build an atmosphere of trust and make it easier to relax the participants and to arouse the flow of communication among them. Use warm up exercises and games.
- **Dividing the participants into work groups**
- **Training rules and guidelines** prepared and agreed upon by the participants
- **Use of a combination participatory training methods and techniques.**
Handout no. 1.1.3.1.1 - Options for seating arrangements for training

**Rows of tables and/or chairs**

**Advantages:**
- Can fit more people into the room
- Everyone faces the front

**Disadvantages:**
- Participants cannot make eye contact with each other
- Difficult for trainer to make eye contact with those at the back
- Trainer cannot walk easily amongst participants
- Impossible to break into groups without making reorganization of tables and chairs
- People tend to sit at the back first, distancing themselves from the trainer
- It is like classrooms at school, i.e. too formal

**Hollow U**

**Advantages:**
- Trainer can walk amongst participants
- Trainer has eye contact with all participants

**Disadvantages:**
- Participants along each arm of U do not have eye contact with each other
- Fewer people can fit into the room
- Impossible to break into groups without making reorganization of tables and chairs

**Fishbone or banquet style**

**Advantages:**
- Participants arranged in groups
- Arrangement is easy to use if mixing lectures with

**Conference table**

**Advantages:**
- Large proportion of participants have eye contact with each other

27
group work
- Trainer can walk easily amongst groups

Disadvantages:
- Fewer people can fit into the room
- Participants cannot make full eye contact with other trainees
- If tables are too long and thin, participants at the ends are likely to be left out of the conversation

- Large table useful for plenary group discussions

Disadvantages:
- Cannot break into small groups easily
- Cannot fit many participants around the table
- During general discussion, several sub-discussions may form and disrupt proceedings

Circle or semi-circle of chairs

Advantages:
- People can relax and interact well
- Participants able to adopt open poses
- No natural top position for trainer, so very egalitarian
- Easy to move into various exercises and games
- Stops people settling into specific desk or chair

Disadvantages:
- No flat work surface
- No tables on which to rest books and materials
- No physical barriers, so more openness needed
- Intimidates shy people
- In large groups, participants sit far from those opposite them

Table trios

Advantages:
- As with banquet style
- With tables pointed towards the front, the tables are all close together, so better than banquet for group work

Disadvantages:
- Need many tables more than banquet style if the total group is large
- Tables take up much space

Lesson 1.1.3.2
Factors to consider in facilitating a participatory training program

Objective

At the end of the lesson, the participants should be able to explain the factors to consider in facilitating a participatory training program and what makes a good trainer-facilitator.

Methods

Group discussion and lecture

Materials

Large brown paper, marker, and masking tape

Time

Two hours

Process

1. Form the participants into groups. Ask each group to discuss their own understanding of participatory training using the following guide questions:

   • What are some of the factors to consider in facilitating a participatory training program?
   • What makes a good trainer-facilitator?

2. Each group writes the important points of the discussion on a large brown sheet of paper and makes a brief presentation. Group presentations are followed by open forum.

3. Summarize the important points in the group presentations and fill the gaps in participants’ understanding by giving a brief lecture using the learning notes.

Learning notes

What are some of the factors to consider in facilitating a participatory training program?

• Group cooperation should be stressed at an early stage of training.
• The size of the group is important. Small groups encourage more active participation.
• A group’s effectiveness depends on the personalities of the members and style of leadership.
• One member should not be allowed to dominate.
• Any shy members should be encouraged to interact.
• Private conversation hinders group discussion and should be discouraged.
• Be sure that instructions to working groups are clear, precise, and written (for reference).
• “Face to face” discussion is essential.
• Any adverse criticism must relate to an idea and not to its originator. Personal criticism can lead to an affected member withdrawing from any further discussion.

What makes a good trainer-facilitator?

• Adequate knowledge of the subject matter
• A warm personality, with an ability to show approval and acceptance of participants
• Social skills, with an ability to bring the group together and control it without damaging it
• A manner of teaching which generates and uses the ideas and skills of participants
• Organizing ability, so that resources and logistical arrangements are properly handled
• Skills in detecting and resolving participants’ problems
• Flexibility in responding to participants’ changing needs

<table>
<thead>
<tr>
<th>Box 1</th>
<th>Group size and participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-6 people</td>
<td>Everyone speaks.</td>
</tr>
<tr>
<td>7-10 people</td>
<td>Almost everyone speaks. Quieter people say less. One or two may not speak at all.</td>
</tr>
<tr>
<td>11-18 people</td>
<td>5 or 6 people speak a lot, 3 or 4 others join in occasionally</td>
</tr>
<tr>
<td>19-30 people</td>
<td>3 or 4 people dominate</td>
</tr>
<tr>
<td>30+ people</td>
<td>Little participation possible.</td>
</tr>
</tbody>
</table>

*Source: Jenny Rogers (1989)*
Lesson 1.1.3.3.
Understanding the training principles and practices in village forestry

Objective

At the end of the lesson, the participants should be able to explain the training principles and practices in village forestry

Methods

Lecture and discussion

Materials

Blackboard and eraser

Time

45 minutes

Process

1. Give a brief lecture with discussion on the training principles and practices in village forestry using the learning notes.

2. Ask the participants if they have adopted and applied some of these village forestry training principles and practices in their respective areas of assignment. Ask them to share their own experiences in applying such training principles and practices

Learning notes

What are the training principles and practices in village forestry?

• Training is based on the needs of villagers and state forestry staff in order for them to effectively perform their new tasks, roles, and responsibilities in village forestry (task oriented).

• Training is closely linked to the implementation of village forestry field activities. Sequencing of training courses is synchronized with the schedule of village forestry field activities to be conducted by state forestry staff and villagers (field implementation oriented).

• All stages of planning, implementation, and management of village forestry training courses are jointly undertaken by the state forestry staff and villagers (participation oriented).

• The design of village forestry training courses gives equal emphasis to “contents” and “processes” (process oriented).

• Village forestry training emphasizes “learning by doing”. Classroom sessions are complemented with on-the-job training in the field. Synthesis of lessons and experiences is conducted to facilitate and optimize the learning process (experiential learning oriented).
Module 1.1.4
Selected participatory training methods and techniques

Introduction

This module is aimed at providing the participants with practical guidelines in selecting and using appropriate training methods and techniques. The participants acquire knowledge and skills in planning, conducting, and evaluating a cross village visit.

Contents

The module consists of nine lessons:

Lesson 1.1.4.1 Guidelines in selecting and using appropriate participatory training methods and techniques- In this lesson, the participants are provided with practical guidelines in selecting and using appropriate participatory training methods and techniques.

Lesson 1.1.4.2 Using participatory training method: Group discussion- The participants learn how to use the training method of group discussion

Lesson 1.1.4.3 Using participatory training method: Role play - The participants acquire knowledge and skills in conducting a role play.

Lesson 1.1.4.4 Using participatory training method: Demonstration and practicum- The participants are provided with knowledge and skills of conducting a demonstration or practicum.

Lesson 1.1.4.5 Using participatory training method: Group process exercises and games - The participants learn how to use conduct and facilitate group process exercises and games

Lesson 1.1.4.6 Using participatory training method: Field visit and study tour- In this lesson, the participants learn how to organize field visits and study tours.

Lesson 1.1.4.7 Using participatory training method: Individual and group exercises - The participants learn how to use individual and group exercises in training.

Lesson 1.1.4.8 Using participatory training method: Peer tutoring or peer teaching- The participants learn how to use peer tutoring or peer teaching.

Lesson 1.1.4.9 Planning, conducting, and evaluating a cross-village visit- The participants are equipped with knowledge and skills in planning, conducting and evaluating a cross-village visit.
Lesson 1.1.4.1
Guidelines in selecting and using appropriate participatory training methods and techniques

Objective

At the end of the lesson, the participants should be able to explain the guidelines in selecting and using appropriate participatory training methods and techniques

Methods

Group discussion, lecture, demonstration, and practicum

Materials

Large brown paper, markers, and masking tape

Time

One hour

Process

1. Based on their own experiences, ask the participants to discuss what the factors to consider are in selecting and using participatory training methods and techniques

2. Summarize and list the results of the discussion on large brown sheets of paper.

3. Fill the gaps in participants’ understanding of the guidelines in selecting and using appropriate participatory training methods and techniques by giving a brief lecture using the learning notes

Learning notes

What are the guidelines in selecting and using appropriate participatory training methods and techniques?

- **Having a clear training objective** - What are the purposes and Expected outcomes of the training? What tasks will the participants undertake after the training is finished?

- **Time required** - Different training methods and techniques require different amounts of time. Most trainers are ambitious and they achieve very little. Allow time for adequate discussion and thinking. Based on the available time allocated for the training, which training methods are most appropriate to use?

- **Choosing a training site** - Specific training methods require specific training sites. If the trainer intends to break the participants into small groups, he/she should not place the participants in a formal lecture hall as the setting. Based on the available facilities at the training site, which training methods are suitable to use?
Participants’ profiles- It is important for the trainer to learn about the profile of each of the participants. What training techniques are most appropriate for the participants?

Familiarity with the methods- The trainer should start with the training techniques that he/she is most familiar with and that he/she feels confidently will work effectively with the participants. Does the trainer have past practical experience in using the methods or techniques?

Participation of trainees- As a first step, the training should be broken down into a series of modules and lessons. When a clear training objective is agreed between the trainers and potential participants, it is a good idea to let the potential participants discuss in small groups and let them suggest topics they believe should be covered by the training. What topics do the participants need most?

Review and assessment of available training techniques- After defining the training objectives and contents, the trainer should review and assess the different training methods and techniques that are available and could be used. What combinations of training methods are suitable?

Relevance to the participants- Whichever training methods and techniques the trainer selects, be sure that they are related to the participants’ actual situation. The participants should see the training as relevant to their lives and important to their work.

Plan for “follow-up” action- Whenever possible the trainer should help the participants to draw up a simple follow-up action plan to ensure that the new knowledge, skills, and behavior patterns learned during the course will be put into practice “back on the job”. What activities will the participants undertake after the training?

Establishment of rapport with participants- Which of the training methods will facilitate the establishment of rapport between the trainer and the participants? Start with the training methods or techniques that the trainer likes most and with which he/she feels confident to use. Take time and tell a few stories and ensure that the participants gradually become fully involved in the training process.
Lesson 1.1.4.2
Using participatory training method: Group discussion

Objective

At the end of the lesson, the participants should be able to explain the uses, advantages, limitations, requirements, and procedures for conducting a group discussion.

Time

Two hours

Process

1. Discuss with the participants their own understanding and experience in using group discussion as a training method using the following guide questions:
   
   - What is a group discussion?
   - What are the uses of a group discussion?
   - What are the advantages of using a group discussion?
   - What are the limitations in using a group discussion?
   - What are the requirements in using a group discussion?
   - What are the procedures in using a group discussion?
   - What are some of the factors to consider in using a group discussion?

2. Summarize the important points of the discussion and fill the gaps in participants’ understanding of the training method of group discussion using the learning notes.

Learning notes

What is a group discussion?

A group discussion involves two or more people coming together to talk informally and to discuss a topic of mutual concern. Experiences are shared, opinions expressed, alternatives discussed, and actions planned.

What are the uses of a group discussion?

- to identify and find solutions to problems
- to develop a plan for action
- to develop leadership skills and interpersonal relations

What are the advantages of a group discussion?

- Puts together experiences, abilities, and knowledge of members in a group
- Provides for participation of every group member
- Can stimulate desire to learn and to share
What are the limitations of a group discussion?

- Can be time consuming, particularly if persons with strong beliefs or different backgrounds are involved

What are the requirements in using group discussion?

- A good group leader is needed to avoid the more dominant members taking over the group discussion
- Participants should be in a relaxed atmosphere that is free from noise and other disturbances
- Face-to-face discussion is essential
- Discussion is more effective when a group is small. The effectiveness of group discussion may decline when there are more than 7 persons in a group.
- Each group should select a leader and a recorder/reporter
- Preparatory exercises (e.g. energizers, group dynamic exercises) are needed before group discussion is started

What are the procedures in using group discussion?

- Start with warm up exercises which are interesting, topical, and appropriate for the group
- Make sure your instructions to the groups are clear, precise, and preferably written (for ready reference)
- Select a group leader and recorder to report results of group activity
- Discuss topics and draw recommendations or actions to solve a problem
- Set deadline and time limit

What are some of the factors to consider in using group discussion?

- Group cooperation should be stressed at an early stage.
- Any member should not be allowed to dominate the group discussion
- Any shy member must be encouraged to participate
- Private conversations hinder group discussion and should be discouraged
Lesson 1.1.4.3
Using participatory training method: Role play

Objective

At the end of the lesson, the participants should be able to explain the uses, advantages, limitations, requirements, and procedures for conducting a role play

Time

Two hours

Process

1. Discuss with the participants their own understanding and experience in using role play as a training method using the following guide questions:

- What is a role play?
- What are the uses of a role play?
- What are the advantages of using a role play?
- What are the limitations in using a role play?
- What are the requirements in using a role play?
- What are the procedures in using a role play?
- What are some of the factors to consider in using a role play?

2. Summarize the important points of the discussion and fill the gaps in participants’ understanding of the training method of role play using the learning notes.

Learning notes

What is a role play?

In a role play, a “real life” situation (but with no script and no set of dialogue) is improvised and acted out in front of the group, which then discusses the meaning and implications of the performance for the situation under consideration. Role playing is generally spontaneous.

What are the uses of a role play?

- to examine a problem or approach relating to human relation, i.e. an extension worker who is required to deal with a villager
- to practice new skills, i.e. PRA semi-structured interview
- to provide the group with insights into attitudes that differ from their own.

What are the advantages of a role play?

- An effective way of stimulating discussion that is aimed at problem solving
• Gives the “actor” a chance to assume the personality of (to think and act like) another person, which should lead to a better understanding of the other person’s point of view
• An effective means of avoiding the real-life dangers of the “trial and error” approach
• Adds variety and fun to a formal training course

What are the limitations of a role play?

• Some people are too shy and self-conscious to act out a role.
• Role playing loses some of its effect when the audience is too large.
• “Actors” worry about their performance and do not concentrate on the purpose of the role play.

What are the requirements in using a role play?

• Each member of the audience must be able to see and observe the role play.
• Actors seem to like being against a wall or on a stage, away from their audience.

What are the procedures in using a role play?

• The trainer must clearly define the situation (set the scene) before the role play begins.
• Role playing can be introduced without any warning but it is better to give the “actors” a little time to understand the idea-- they will sometimes produce an excellent performance.
• The trainer should set a time limit for the role play.
• Always thank those involved in the role play for their effort.

What are some of the factors to consider in using a role play?

• Role playing in the early stages of a training course will help breakdown communication barriers.
• Select your “actors” carefully.
• Where possible, allow the participants enough time to improvise their “props” and attire.
• Encourage a light-hearted approach.
• If time permits, arrange several role playing sessions, and try making the groups competitive
Lesson 1.1.4.4
Using participatory training method: Demonstration and practicum

Objective
At the end of the lesson, the participants should be able to explain the uses, advantages, limitations, requirements, and procedures for conducting a demonstration and practicum

Time:
2 hours

Process
1. Discuss with the participants their own understanding and experience in using demonstration and practicum as a training method using the following guide questions:
   - What is a demonstration and practicum?
   - What are the uses of a demonstration and practicum?
   - What are the advantages of using a demonstration and practicum?
   - What are the limitations in using a demonstration and practicum?
   - What are the requirements in using a demonstration and practicum?
   - What are the procedures in using a demonstration and practicum?
   - What are some of the factors to consider in using a demonstration and practicum?

2. Summarize the important points of the discussion and fill the gaps in participants’ understanding by giving a brief lecture using the learning notes.

Learning notes

What is a demonstration or practicum?
A demonstration or practicum involves the performance of an action (or the explanation of a procedure) before the participants, to enable them to perform the same action (under guidance, as necessary).

What are the uses of a demonstration or practicum?
- to teach a particular task
- to introduce a new procedure or technique
- to introduce a new product
- to illustrate or reinforce a point or an idea

What are the advantages of using a demonstration or practicum?
- What is seen and done is more likely to be remembered than what is heard or read.
- Trying for oneself is a powerful aid to learning (practicum).
• The pace can be flexible and the action can be repeated as often as necessary.
• It can utilize the “real thing” or a model of it.

What are the limitations in using a demonstration or practicum?

• More suitable for small groups
• Can be expensive and time consuming
• Can raise problems on transport and setting up of the demonstration or practicum

What are the requirements in using a demonstration or practicum?

• The provision of adequate facilities is most important. Everybody must be able to see and to practice with the demonstration equipment. For large-scale demonstration, a barrier may be required to keep people from crowding and to give more people a view. If time permits, it may be useful to arrange the participants by batches to view the demonstration or practicum.

What are the procedures for using a demonstration or practicum?

• Collect the necessary materials and equipment and select a suitable site for demonstration.
• Practice the technique beforehand.
• Explain the purpose and objective, then carry out the demonstration.
• Invite participants to practice the techniques under guidance (practicum).
• Volunteers are tested to see whether they have acquired the demonstrated skills.

What are some of the factors to consider in using a demonstration or practicum?

• To demonstrate effectively, the trainer must be familiar with the equipment and the skills in using it.
• Make sure the participants fully appreciate the purpose of the demonstration.
• The easiest way to successful demonstration is to build on individual experiences.
• Participants practice best in their own time without many observers – some get nervous while others are watching or criticizing.
• Practice is the rule for mastering a complicated procedure or technique.
Lesson 1.1.4.5
Using participatory training method: Group process exercise and game

Objective

At the end of the lesson, the participants should be able to explain the uses, advantages, limitations, requirements, and procedures for conducting a group process exercise and game.

Time

Two hours

Process

1. Discuss with the participants their own understanding and experience in using a group process exercise and game as a training method using the following guide questions:
   - What is a group process exercise and game?
   - What are the uses of a group process exercise and game?
   - What are the advantages of using a group process exercise and game?
   - What are the limitations in using a group process exercise and game?
   - What are the requirements in using a group process exercise and game?
   - What are the procedures in using a group process exercise and game?
   - What are some of the factors to consider in using a group process exercise and game?

2. Summarize the important points of the discussion and fill the gaps in participants’ understanding of the training method of group process exercises and games by giving a brief lecture using the learning notes.

Learning notes

What is a group process exercise and game?

A group process exercise and game emphasizes the creation of a training environment or climate in which individuals and groups feel free to experience, reflect, share, and change. Each exercise or game emphasizes a message, oftentimes discussed with the participants at the end of the exercise or game.

What are the types of group process exercises and games?

- Exercises for introduction and “icebreakers”
- Exercises for energizers and group formation
- Group dynamic exercises
- Listening exercises
- Analytical exercises
- Evaluation exercises
What are the uses of a group process exercise and game?

- to relax the participants
- to stimulate the flow of communication among participants
- to encourage everyone to participate and learn (experiential learning)
- to introduce a session
- to develop new skills
- to expose the participants to new ways of judging their own actions in relation to the impact on group work

What are the advantages of using a group process exercise and game?

- The enjoyment that is created by exercises and games enhances group cohesion and openness.
- They are simple, easy to learn, and relatively quick to use.
- They can be used in a wide range of training situations.
- They can be used as “energizers” when participants are getting bored or frustrated.
- They enhance learning by experience (experiential learning).

What are the limitations in using a group process exercise and game?

- Participants may think that exercises or games are “silly”, “foolish” or “only for kids” until they realize the deeper learning experiences.
- Participants may be reluctant, for various reasons, to take part in the exercise or game.
- Participants may experience nervousness, panic, or plain suspicion.
- Activities can be time consuming.
- Trainers cannot totally predict the outcome of an exercise or game.
- Insufficient time for processing and reflection may leave the participants confused and frustrated.

What are the requirements of using a group process exercise and game?

- trainer-facilitator with good organizing skills and experience
- relaxed environment
- adequate space
- materials required by specific exercise or game
- sufficient time for processing, discussion, and reflection

What are the procedures in using a group process exercise and game?

- Each group process exercise or game has its own procedures.
What are some of the factors to consider in using a group process exercise and game?

- The exercise and game should be explained carefully, especially its purpose.
- Relate the exercise or game to other parts of the training course and to the participants’ “real” situations.
- Draw attention to the relevance of the exercise, to the participants’ work or to the overall training objectives.
- Familiarize and practice the exercise or game beforehand. One should start the exercise or game oneself by giving the first example or presentation.
- Exercises should be balanced with sufficient time for discussion and reflection. Use guide questions during processing and reflection session.
- If working with limited time, it is better to completely and properly carry out 1 or 2 exercises or games than do many exercises quickly.
Lesson 1.1.4.6
Using participatory training method: *Field visit and study tour*

Objective

At the end of the lesson, the participants should be able to explain the uses, advantages, limitations, requirements, and procedures for conducting a field visit and study tour

Time

Two hours

Process

1. Discuss with the participants their own understanding and experience in using a field visit and study tour as a training method using the following guide questions:

   - What is a field visit and study tour?
   - What are the uses of a field visit and study tour?
   - What are the advantages of using a field visit and study tour?
   - What are the limitations in using a field visit and study tour?
   - What are the requirements in using a field visit and study tour?
   - What are the procedures in using a field visit and study tour?
   - What are some of the factors to consider in using a field visit and study tour?

2. Summarize the important points of the discussion and fill the gaps in participants’ understanding of the training method of field visit and study tour by giving a brief lecture using the learning notes.

Learning notes

**What is a field visit and study tour?**

A field visit or study tour is a planned itinerary, usually for a pre-determined period, during which a particular environment or past and present “events or practices” in a specific area are studied or observed

**What are the uses of a field visit and study tour?**

- to relate theory to “real” problems or situations
- to study something that cannot be brought into a classroom
- to stimulate interest and concern
- to demonstrate a course of action “in the field” or “in the workplace”
- to talk to villagers in their actual living or working environments
- to find out details on how things are done in the village
What are the advantages of using a field visit and study tour?

- Seeing is more meaningful than only hearing or reading -- it becomes easier to “relate” to the real situation.
- A particular practice can be related to its actual environment.
- A “team spirit” can be fostered through participants becoming acquainted socially.
- These trips are usually more enjoyable than classroom learning.
- They are useful for competitive learning, i.e. each group is asked to prepare a report regarding the field visit.

What are the limitations in using a field visit and study tour?

- Planning and organizing can be time consuming.
- Travel and accommodation are costly.
- A tight schedule is hard to maintain.
- Certain risks are always involved, e.g. injuries or sickness.

What are the requirements in using a field visit and study tour?

- Detailed transport, guide, accommodation, and food arrangements
- Information handouts, maps, and detailed program for each site to be visited
- A final “get together” to review the field visit
- A definite starting time and easily identifiable starting point for the field visit or study tour

What are the procedures in conducting a field visit and study tour?

- The course organizers must plan in detail and contact every person and prepare every place that is to be visited.
- A schedule must be composed with maps and handouts (learning aids) prepared.
- The participants must be briefed on what they expect to see, the purpose of the visit, what will be expected of them, the amount of spare time that will be available, and the time of their return.
- After each site visited, participants should meet to review what they have seen and its significance for them.

What are some of the factors to consider in conducting a field visit and study tour?

- Whenever possible, someone should make a preliminary visit to check on detailed arrangement, timing, etc., for the filed visit or study tour.
- Build in social activities to occur during the field visit or study tour to provide for recreation.
- The schedule should not be too tight --always allow for the unexpected. All members must be advised on what will be required of them before the start the field visit or study tour, i.e. individual or group report.
Lesson 1.1.4.7
Using participatory training method: Individual and group exercise

Objective

At the end of the lesson, the participants should be able to explain the uses, advantages, limitations, requirements, and procedures for conducting an individual and group exercise.

Time

Two hours

Process

1. Discuss with the participants their own understanding and experience in using an individual and group exercise as a training method using the following guide questions:
   - What is an individual and group exercise?
   - What are the uses of an individual and group exercise?
   - What are the advantages of using an individual and group exercise?
   - What are the limitations in using an individual and group exercise?
   - What are the requirements in using an individual and group exercise?
   - What are the procedures in using an individual and group exercise?
   - What are some of the factors to consider in using an individual and group exercise?

2. Summarize the important points of the discussion and fill the gaps in participants’ understanding by giving a brief lecture using the learning notes.

Learning notes

What is an individual and group exercise?

An individual or group exercise is a work assignment designed to provide practice in a skill or technique either individually or by group. It aims to review skills already learnt and used as a basis for self-instructional learning.

What are the uses of an individual and group exercise?

- to demonstrate a skill or technique
- to provide practice
- to reinforce or test learning
- to test initiative
- to review already acquired skills

What are the advantages of using an individual and group exercise?
• can promote familiarity with the “real” thing
• helps to build confidence or independence
• reinforces self-instructional learning
• can help to develop initiative

What are the limitations in using an individual and group exercise?

• useful only when it is well planned and tested
• often requires good organizing
• the degree of skills that is acquired depend upon the individual or group interest and capabilities

What are the requirements of using an individual and group exercise?

• It depends on the type of exercise, e.g. work space, materials, equipment, tools.

What are the procedures in using an individual and group exercise?

• Brief the participants on the technique including its requirements and expected outcome.
• Participants will either work individually or as a group depending on the requirements of the assigned exercise.
• The trainers-facilitators are usually available to each individual or group to provide guidance and supervision.
• Individuals or groups are requested to make a presentation of their output as time permits.

What are some of the factors to consider in using an individual and group exercise?

• Every exercise needs to be challenging and relevant.
• Participants should be given clear instructions on what is expected of them and when (give a time limit).
• Critical but helpful feedback is an essential part of any worthwhile exercise; do not forget to acknowledge and praise good work.
Lesson 1.1.4.8
Using participatory training method: Peer teaching or peer tutoring

Objective

At the end of the lesson, the participants should be able to explain the uses, advantages, limitations, requirements, and procedures for using peer teaching or peer tutoring.

Time

Two hours

Process

1. Discuss with the participants their own understanding and experience in using peer teaching or peer tutoring as a training method using the following guide questions:
   - What is peer teaching or peer tutoring?
   - What are the uses of peer teaching or peer tutoring?
   - What are the advantages of using peer teaching or peer tutoring?
   - What are the limitations in using peer teaching or peer tutoring?
   - What are the requirements in using peer teaching or peer tutoring?
   - What are the procedures in using peer teaching or peer tutoring?
   - What are some of the factors to consider in using peer teaching or peer tutoring?

2. Summarize the important points of the discussion and fill the gaps in participants’ understanding by giving a brief lecture using the learning notes.

Learning notes

What is peer teaching or peer tutoring

In peer teaching or peer tutoring, small groups of peers act as both teacher and learner by switching roles (differs from standard tutoring, in which a participant who has adequate knowledge on a certain topic helps another who is having difficulties with it).

What are the uses of peer teaching or peer tutoring?

- To break up a large group of participants into small “learning cells”
- To reduce anxiety levels at the start of a training course by involving the whole class in an active learning process
- To discuss some particular topics in depth
What are the advantages of using peer teaching or peer tutoring?

- A “one-on-one” situation
- Provides an active learning atmosphere for a large group
- Reduces participants’ feelings of isolation and boredom
- Provides immediate feedback (for self-evaluation)

What are the limitations in using peer teaching or peer tutoring?

- The training group as a whole may have difficulty in concentrating because of the noise being made by the learning cells.
- Some participants may feel ashamed amid their partners in the learning cell.

What are the requirements of using peer teaching or peer tutoring?

- Adequate space for small learning cells
- A quiet room or any relaxing environment
- Good trainers-facilitators to supervise and facilitate the different “learning cells”
- Sufficient time for processing and reflection sessions

What are the procedures for using peer teaching or peer tutoring?

- Brief the participants on the technique including its requirements and expected outcome.
- Form the participants into small groups of 3-4 people (in peer tutoring mix the participants who have knowledge and skills on a certain topic with those who have difficulties with it).
- Each participant must be asked to gain experience in the teaching and learning roles, and each member of every small group shares in asking and answering questions on a certain topic.
- The trainer-facilitator is always available to supervise, to help solve problems or to settle disagreements or arguments, and to give advise, when necessary.
- The trainer-facilitator should conduct a concluding session to answer any questions that were not adequately addressed in the learning “cells”.

What are some of the factors to consider in using peer teaching or peer tutoring?

- Peer teaching (peer tutoring) can be a valuable technique and is worth trying in a variety of situations.
- Most of the people in a large group are usually sitting next to friends. This tends to make peer teaching (peer tutoring) easier to get started.
- If the room space is inadequate, send the learning cells outside the training hall for a specific period of time.
- After the small group discussions on an assigned topic, any knowledge gaps should become clear, and these should form the basis of questions for the trainer to clarify during the concluding session.
Lesson 1.1.4.9  
Planning, conducting, and evaluating a cross-village visit

Objective

At the end of the lesson, the participants should be able to explain the importance of cross-village visits and the procedures for planning, conducting, and evaluating a cross-village visit.

Methods

Lecture-discussion

Time allocation:

Three hours

Process

1. Ask the participants to discuss their own understanding of a cross-village visit and its importance including the procedures for planning, conducting and evaluating a cross-village visit.

2. Summarize the results of the discussion and give a brief lecture to fill the gap in participants’ understanding using the learning notes.

Learning notes

What is a cross-village visit?

A cross-village visit is a planned process of villagers-to-villagers exchange of information, knowledge, and practices. It is a two-way learning process between the visiting and host villagers.

What is the importance of a cross-village visit?

- It builds-up the morale and confidence of villagers (Generally, villagers are happy and proud to show to others their good practices and achievements).
- It promotes harmonious and cordial relationships between villages.
- It helps build up inter-village collaboration and cooperation.

What are the procedures in planning, conducting, and evaluating a cross-village visit?

Planning a cross-village visit

Step 1 The DAFO extension worker discusses with the village forestry core group or village forestry association the options for possible villages that can be visited, including the learning objectives of the cross-village visit.
Step 2 The village forestry core group or village forestry association in collaboration with the village administration selects the village to be visited and identifies participants to the cross-village visit.

Step 3 The village forestry core group or village forestry association initiates contacts with the identified village to be visited, preferably through written communication duly endorsed by the village chief(s) concerned. Through an exchange of communication between the visiting and the host village, agreements are made regarding the learning objectives, program of activities, number of visiting villagers, and arrangements for food, accommodation, and other provisions can be made.

Step 4 The host village prepares for the cross visit arranging provisions such as (a) the program of activities including presentations, group discussions, techniques or practices to be demonstrated, and places to be visited, and (b) food, accommodation, and other arrangements. The DAFO extension worker assigned to the host village provides the necessary assistance and helps facilitate arrangements for the cross-village visit.

Conducting a cross village-visit

Step 5 Before the cross-village visit, a pre-cross-village visit orientation is organized and facilitated by the DAFO extension worker with the visiting villagers to discuss the learning objectives and expectations, program of activities, travel, food, accommodation, and other arrangements. (See handout on guidelines for conducting a pre-cross-village visit orientation.) The DAFO extension worker assigned to the host village facilitates a similar briefing with the host village.

Step 6 The DAFO extension worker accompanies the visiting villagers and facilitates the actual conduct of the cross-village visit. He/she collaborates with his counterpart DAFO extension worker assigned to the host village.

Evaluating a cross-village visit

Step 7 After the cross-village visit, a post-cross-village visit assessment is organized and facilitated by the DAFO extension worker with the visiting villagers to synthesize the lessons learned and discuss how these learning and experiences can be applied in their village. Measures on how to improve the conduct of future cross-village visits are discussed. (See handout on guide for conducting a post cross-village visit assessment.) The DAFO extension worker assigned to the host village also facilitates a de-briefing with the host village.
Handout no. 1.1.4.9.1 - Guide for conducting a pre-cross village visit orientation

Expected outcome

- Participants are provided with an overview of the cross-village visit--its rationale, objectives, detailed programme of activities, and other arrangements.
- Participants are provided with a brief introduction of the village(s) to be visited and their village forestry activities.
- The participants’ learning expectations from the cross-village visit are drawn up.

Requirements

- Detailed programme of activities of the cross-village visit
- Location map of host village(s)
- Summary of completed and on-going village forestry activities in the host village(s)

How to conduct the activity

The pre-cross-village visit orientation is organized before the conducting of a cross-village visit

Step 1 Ask the participants and the facilitators to briefly introduce themselves.

Step 2 The facilitator gives a briefing on cross-village visit.

- Rationale and importance of the cross-village visit
- Objectives
- Participants and facilitators
- Detailed program of activities
- Other arrangements

Step 3 The facilitator gives a brief introduction of the villages to be visited (location) and a summary of its village forestry activities. (Detailed information are provided by the villagers in the host villages.)

Step 4 The facilitator conducts an exercise on surfacing of participants’ learning expectations from the cross-village visit. (Guide question: What do the participants expect to learn from the cross-village visit?) List the participants’ learning expectations on a large brown sheet of paper.
Handout no. 1.1.4.9.2 - Guidelines for conducting a post–cross-village visit assessment

Expected outcome

- The participants’ learning expectations from the cross-village visit are assessed.
- The lessons and experiences gained from the cross-village visit are processed and shared by the participants.
- The procedures in conducting the cross-village visit are reviewed and evaluated.
- Suggestions to improve the conduct of future cross-village visits are made.

Requirements

- Summary of participants’ learning expectations from the cross-village visit
- Detailed program of activities
- Handout on sample of a cross-village visit evaluation form

How to conduct the activity

The post-cross-village visit assessment is conducted immediately after the cross-village visit

Step 1  Ask the participants to discuss and assess if their learning expectations were achieved. Use the list of participants’ learning expectations produced during the pre-cross-village visit orientation.

Step 2  Ask the participants to discuss and share the lessons and experiences gained from the cross-village visit.

Step 3  Ask the participants to review and assess the cross village visit using the cross village visit evaluation form (see handout).

Step 4  Based on the review and evaluation of the cross-village visit, ask the participants to make suggestions to improve the planning and conduct of future cross-village visits.
**Handout no. 1.1.4.9.3 - Sample of a cross-village visit evaluation form**

(Instruction: Encircle the number that best describes your evaluation rating)

<table>
<thead>
<tr>
<th><strong>Relevance</strong></th>
<th>Relevant</th>
<th>Not relevant</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Was the cross-village visit relevant to your work?</em></td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Timeliness</strong></th>
<th>Timely</th>
<th>Not timely</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Was the conduct of the cross-village visit timely?</em></td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Cross-village visit methods</strong></th>
<th>Effective</th>
<th>Not Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Were the methods used in the cross-village visit effective?</em></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(a) Presentations by VFA officers of host village</td>
<td>Effective</td>
<td>2</td>
</tr>
<tr>
<td>(b) Inter-VFA discussions and consultations</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(c) VFA demonstrations</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(d) Field observations of VFA activities</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(e) Pre-cross-village visit orientation</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(f) Post-cross-village visit assessment</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Organization of cross-village visit</strong></th>
<th>Good</th>
<th>Not good</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Overall organization of the visit</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(b) Inter-VFA communication exchange (written)</td>
<td>Short</td>
<td>2</td>
</tr>
<tr>
<td>(c) Time allocation</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(d) Transport</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(e) In-transit accommodation</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(f) In-transit food arrangements</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(g) Food and accommodation arrangements at host village(s)</td>
<td>Good</td>
<td>2</td>
</tr>
<tr>
<td>(h) Role of facilitators</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**Suggestions to improve the conduct of future cross-village visit**

*What suggestions do you want to make to improve future cross-village visits?*
Course 1.2
Village forestry extension

Introduction

This course is aimed at strengthening the capability of DAFO extension workers to effectively communicate the concept and practices of village forestry to villagers.

The lessons are designed to provide the participants with: (a) a better understanding of the elements and processes of communication, (b) adequate knowledge and skills in using a combination of participatory extension methods, and (c) a practical guide in conducting extension work in the village including the use of village forestry flipchart as an extension aid material.

Contents

The course consists of three modules:

Module 1.2.1 Effective communication - In this module, the participants learn the elements and process of communication and the importance of effective communication. The participants are provided better understanding of the factors that facilitate or hinder effective communication, including the importance of listening skills in communication.

Module 1.2.2 Extension methods – The participants acquire a better understanding of the importance of extension and the difference between traditional extension and participatory extension. The participants are provide knowledge and skills in selecting and using different extension methods.

Module 1.2.3 Planning and conducting village forestry extension work - The participants are provided adequate knowledge and skills in planning, conducting, evaluating, and reporting village forestry extension work.
Module 1.2.1
Effective communication

Introduction

The module is aimed at providing the participants with a better understanding of the process of communication and the importance of effective communication. The participants learn the factors that facilitate and hinder effective communication including the importance of listening skills in communication.

Contents

The module consists of two lessons:

Lesson 1.2.1.1 Understanding the process of communication - In this lesson, the participants acquire a better understanding of the (a) elements and processes of communication, (b) importance of effective communication, and (c) factors that facilitate or hinder effective communication and the means to ensure effective communication.

Lesson 1.2.1.2 Importance of listening skills in communication – The participants learn the importance of listening skills in communication and some ways of improving listening skills.
Lesson 1.2.1.1
Understanding the process of communication

Objectives

At the end of the lesson, the participants should be able to:

1. Discuss the elements and processes of communication;
2. Explain the importance of effective communication;
3. Identify the factors that hinder or facilitate communication;
4. Elaborate the means to ensure effective communication.

Methods

Group discussion, lecture, group dynamic exercises “Rumor clinic”, games, and reflection session

Materials

Large brown sheets of paper, marker, masking tape or chalkboard, chalks, and eraser

Time

Two hours

Process

1. Conduct a group dynamic exercise: “Rumor Clinic” using the following instructions:

   a. The trainer-facilitator requests twelve (12) trainees to volunteer and participate in the exercise. The volunteer-participants are requested to stay outside and are called to enter the training room one at a time. The rest of the trainees will act as observers.

   b. In the training room, the trainer-facilitator reads (twice) the message to the first volunteer-participant and asks him/her to read (only twice) and pass the message to the second volunteer-participant. The message reads as follows:

   “The village committee of Ban Nonsawang will meet on Friday, October 4, 1996, at 2:30 in the afternoon at the house of Mr. Kham. Before this meeting, the women’s committee will meet on Wednesday, October 2, 1996 at 9:45 in the morning at the house of Mrs. My. The minutes of the women’s committee meeting will be discussed at the village committee meeting.”

   c. The second volunteer-participant is called to enter the training room. The first volunteer participant reads (twice only) and passes the message received from the facilitator to the second volunteer-participant.
d. The first volunteer-participant remains inside the training room. The trainer-facilitator calls the third volunteer-participant to enter the training room and the second volunteer-participant reads (twice) and passes to him/her the message received from the first volunteer-participant to the third volunteer-participant.

e. The process is repeated until all the 12 volunteer-participants have received the messages transmitted to them.

f. The last volunteer-participant along with the third, sixth, and ninth volunteer-participants write the message received by them on the chalkboard or on large brown sheets of paper. The facilitator then calls on the first volunteer participant to do the same.

g. The trainer-facilitator and the trainees compare the messages written on the chalkboard or large paper and analyze and synthesize the experiences gained during the exercise.

2. After the above exercise, ask the participants to give and discuss their observations regarding the exercise and list them on a sheet of large brown paper.

3. Based on the observations and experience gained from the above exercise ask the participants to discuss the following guide questions:

- What is communication?
- What are the purposes of communication?
- What are the elements of communication?
- What is the process of communication?
- Why is effective communication important?
- What are the factors that facilitate and hinder effective communication?
- What are the measures necessary to ensure effective communication?

4. Summarize the important points of the discussions and fill the gap in participants’ understanding using the learning notes.

**Learning notes**

**What is communication?**

Communication is a two-way process of sharing messages between a source and a receiver directly or through a channel, which may result in changes in the knowledge, attitudes, skills, or practices of the involved parties. Communication may be written, spoken, or non-verbal.

**What are the purposes of communication?**

- To succeed in transmitting a message, an idea, or a concept
- To place two or more persons in a state of interaction.
What are the elements of communication?

**Sender** is the source of the message and initiates the sharing process. **Message** includes what the source wants to share with the receiver. It is composed of a **code** (language), **content** (what is being said) and **style** (how is it being said). A message may include a new knowledge, skills, or practices. **Channel** is the means by which the message is transmitted from the source to the receiver. Channels of communication are ways of presenting messages so that they can be:

- SEEN
- HEARD
- SEEN and HEARD
- TOUCHED, SMELLED, and TASTED
- EXPERIENCED

**Receiver** is the destination of the message or the one who receives the message.

What is the process of communication?

It refers to the flow of information or message from the source to the receiver and back.

A Chinese proverb...

I hear ... I forget
I see ... I remember
I do ... I understand

PEOPLE REMEMBER...

- 20% of what they hear
- 40% of what they hear & see
- 80% of what they do
Why is effective communication important?

- Effective communication is important in establishing a common understanding.
- Effective communication is needed to achieve the desired outcomes and results.
- Effective communication contributes to the cohesiveness of a group.

What are the factors that facilitate and hinder effective communication?

Factors that facilitate effective communication:

- Immediate feedback
- Knowledge and trust of oneself and each other
- Correct use of two-way communication
- Selection and use of proper place and time
- Use of appropriate words and phrases (understandable and capable of getting interest from the listener)

Factors that hinder effective communication (opposite of the above)
What are the measures necessary to ensure effective communication?

- Know your audience or your receiver.
- Tailor (or fit) your communication to your audience.
- Gather information about the needs, attitudes, and media usage of your audience.
- Information, which passes through several channels, can be easily distorted. Check out that it has been received accurately and understood sufficiently.
- The source (sender) must ensure that the message is:
  
  TIMELY AND RELEVANT
  SHORT
  FACTUAL
  CLEAR
  CONVINCING

- The receiver must listen and concentrate.
- Do not evaluate or pass judgment on, agree or disagree with a statement before you find out what it really means.
- Ask questions to find out whether your listeners have understood what is intended.
- Tone of the voice is important. Consider what impressions you are conveying with your voice.
- Body movements give clues to feelings and meanings. Consider what is being communicated by your actions.
Lesson 1.2.1.2
Importance of listening skills in communication

Objectives

At the end of the lesson, the participants should be able to:

1. Explain the importance of listening skills in communication;
2. Discuss the ways of improving listening skills.

Methods

Lecture-discussion

Time

45 minutes

Process

1. Ask the participants to discuss their own understanding of listening skills using the following guide questions:
   - Why is listening important in communication?
   - How can listening skills be improved?

2. Summarize the important points of the discussion and give a brief lecture to fill the gap in participants’ understanding using the learning notes.

Learning notes

Why is listening important to communication?

- Misunderstandings can be identified and cleared up
- Relationship of mutual respect can develop
- Information needs can be assessed
- Attitudes on the topic will emerge

How can listening skills be improved?

- **Take time to listen** - Whenever you sense that someone needs to talk, give him/her your time if at all possible. If by listening you can help him/her clear his mind, it will also help clarify communication between you and the person talking.

- **Be attentive** - Make every mental effort possible to understand what is being said. Try to put yourself in the talker’s place in respect to what he/she says. When listening, look for what the speaker intends, not what he/she says.
• **Use verbal reactions** - As a person talks, the listener may employ encouraging verbal reactions e.g. “jao” “uh” or “men”. If the person talking pauses momentarily, the listener should remain silent, perhaps continuing to nod his/her head indicating understanding, until his/her turn to talk or response begins.

• **Never evaluate what has been said** - You should refrain from passing moral judgment upon what is heard.

• **Never lose faith in the ability of the person talking to solve his/her own problems** - Remember that, as the person speaks, he/she is really talking things over with himself/herself. If you refrain from speaking up to place yourself into his/her conversation, chances are that the person talking will work things out for himself/herself.
Module 1.2.2
Extension methods

Introduction

The module is aimed at providing the participants with knowledge and skills in extension and use of extension methods. The participants learn the differences between traditional extension from participatory extension.

Contents

The module consists of four lessons:

Lesson 1.2.2.1 Overview of extension- In this lesson, the participants acquire a better understanding of the objectives and characteristics of extension.

Lesson 1.2.2.2 Differentiating traditional extension from participatory extension- The participants acquire an understanding of the differences between traditional extension and participatory extension.

Lesson 1.2.2.3 Understanding the extension methods- The participants learn about the mass, group and individual methods of extension.

Lesson 1.2.2.4 Guidelines in selecting extension methods- The participants are provided some practical guidelines in selecting and using extension methods.
Lesson 1.2.2.1
Overview of extension

Objectives

At the end of the lesson, the participants should be able to:

1. Describe the objectives of extension and how it can be achieved
2. Discuss the characteristics and guidelines for extension

Methods

Group discussion, lecture, and reflection session

Materials

Large brown sheets of paper, marker, and masking tape

Time

One hour

Process

1. Form the participants into groups. Ask each group to discuss their own understanding of extension using the following guide questions:

   - What is extension?
   - What are the characteristics of extension?
   - What are the objectives of extension?
   - How can extension objectives be achieved?
   - What are the guidelines for extension?

2. Each group writes the important points of the discussion on a large brown sheet of paper and makes a brief presentation. Group presentations are followed by an open forum.

3. Summarize the important points of the group presentations and fill the gaps in participants’ understanding using the learning notes.

Learning notes

What is extension?

- Extension is the conscious communication of information to help people form sound opinions and make good decisions (Van den Ban and Hawkins, 1988)
- Extension is working with people, listening to their problems and needs, and helping them to help themselves (Malla, Jackson, and Ingles, 1989)
- Extension should be regarded as a process of integrating indigenous and derived
knowledge, attitudes, and skills to determine what is needed, how it can be done, what local cooperation and resources can be mobilized and what additional assistance is available and may be necessary to overcome particular obstacles (Sim and Hilmi, 1987)

What are the objectives of extension?

- To increase efficiency and the standard of living of rural people
- To change rural people’s outlooks towards problems and help them gain insights into problems and how to overcome them
- To develop their ability to direct their own future development

How can extension objectives be achieved?

- Communication of information to enhance their knowledge, skills, and decision making
- Offer advice and information to help them solve their problems
- Encourage farmer-to-farmer link to spread their good practices
- Help to set up organizations of villagers
- Help develop self confidence of rural people in their ability and possibility of improving their living condition

What are the characteristics of extension?

- An informal educational process towards rural people
- Joint problem solving with rural people and villagers
- Identifies “best practice” and tells others about it
- Knowledge and skills can also be learned by extension workers from rural people

What are the guidelines for extension?

- Extension works with people and not for people
- Extension is accountable to its clients
- Extension is a two-way process
- Extension cooperates with other rural organizations
- Extension works with different target groups
Lesson 1.2.2.2
Differentiating traditional extension from participatory extension

Objective

At the end of the lesson, the participants should be able to differentiate traditional extension from participatory extension.

Methods

Group discussion, lecture, and reflection session

Time

45 minutes

Process

1. Discuss with the participants their own understanding of the difference between traditional extension and participatory extension.

2. Summarize the important points of the discussion and fill the gaps in participants’ understanding by giving a brief lecture using the learning notes.

Learning notes

What are the differences between traditional extension and participatory extension?

<table>
<thead>
<tr>
<th>Traditional Extension</th>
<th>Participatory Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top-down</td>
<td>Bottom-up</td>
</tr>
<tr>
<td>Spread of new ideas from outside by outsiders</td>
<td>Local indigenous knowledge and practices considered</td>
</tr>
<tr>
<td>Views villages as target or service area and client</td>
<td>Realizes villages are composed of different groups which have different needs</td>
</tr>
<tr>
<td>Transfer of technology approach</td>
<td>On farm technology improvement</td>
</tr>
<tr>
<td>One way information flow</td>
<td>Encourages a 2-way information flow</td>
</tr>
<tr>
<td>Information from research to extension to farmer</td>
<td>Appreciates contribution of local knowledge</td>
</tr>
<tr>
<td>Outsiders plan, decide, provide inputs, manage and evaluate</td>
<td>Recognizes the villagers can set their own objectives, monitor and evaluate them</td>
</tr>
<tr>
<td>Bureaucratic</td>
<td>Community based</td>
</tr>
<tr>
<td>Dependency may be a result (not self-sufficiency)</td>
<td>Encourages, supports, and strengthens communities towards self-reliance</td>
</tr>
<tr>
<td>Results not often successful in the long term and sustainability hard to achieve</td>
<td>Encourages the building of local institutions for decision making and implementation</td>
</tr>
</tbody>
</table>
Lesson 1.2.2.3
Understanding the extension methods

Objective

At the end of the lesson, the participants should be able to explain the different extension methods and the importance of combining the use of these extension methods.

Methods

Group discussion, lecture, and reflection session

Time

One hour

Process

1. Discuss with the participants their own understanding of the different extension methods and the importance of using a combination of extension methods.

2. Summarize the important points of the discussion and fill the gaps in participants’ understanding using the learning notes.

Learning notes

What are the different extension methods?

Extension methods can be divided into three (3) categories:

Mass method

- Printed materials – newspapers, magazines, leaflets, posters, photographs, bulletins, calendars, books, banners, stickers, T-shirts, caps, etc.
- Audio materials - radio, audio cassette, video, television, slide tape, songs and slogans

Group method

- Group meetings, talks, demonstrations (method or result), field visits, workshops, role plays, drama

Individual method

- Farm visits, office calls, personal letters, telephone calls
Why is it important to use a combination of extension methods?

- Individuals have different ways of learning
- Changing behavior may mean learning new knowledge, understanding, skills and attitudes which may require different extension methods
- One extension method reinforces another
- There may be educational or social barriers in using some extension methods
- Certain extension methods may be required to target particular groups
- A method may fail (i.e. radio program not be heard) or illiteracy means the message is not received or lack of transport means no visit is possible
Lesson 1.2.2.4
Guidelines in selecting extension methods

Objective

At the end of the lesson, the participants should be able to explain the guidelines in selecting extension methods

Methods

Lecture-discussion

Time

One hour

Process

1. Ask the participants to discuss their own understanding of the guidelines in selecting the extension methods.

2. Summarize the important points of the discussion and fill the gaps in participants’ understanding using the learning notes.

Learning notes

What are the guidelines in selecting extension methods?

- **Resource requirement** - Will the method require money, transport, materials, equipment, and others? Are these resources readily available in the area?
- **Coverage** - Will the method reach out to a greater number of villagers? Will it have a wider area of coverage?
- **Speed of delivery** - Is the method the fastest way for a message or technology or technique to reach the target villagers?
- **Impact** - What effects will the method have on the extension teams and the target villagers?
- **Interactive** - Is the method participatory using two-way interactive communication?
- **Social acceptability** - Is the method socially and culturally acceptable to the extension team and target villagers?
- **Literacy requirement** - Will the method require literate extension team and target villagers?
- **Replicability** - Can the method be used repeatedly in different places?
- **Skills requirement** - Will the method require specific skills of extension team or target villagers?
- **Local capacity building** - Will the method build-up the capability, self-reliance, and confidence of the target villagers?
Module 1.2.3
Planning and conducting village forestry extension work

Introduction

This module is aimed at providing the participants with knowledge and skills in planning, conducting, evaluating, and reporting village forestry extension work. The participants learn how to use the village forestry flipchart as an extension aid material.

Contents

The module consists of three lessons:

Lesson 1.2.3.1 Procedures in planning and conducting village forestry extension work- In this lesson, the participants acquire knowledge and skills in planning and conducting village forestry extension work. The participants learn how to prepare and implement a simple action plan for village forestry extension work.

Lesson 1.2.3.2 Procedures in evaluating and reporting village forestry extension work- The participants learn how to evaluate and prepare a report for village forestry extension work.

Lesson 1.2.3.3 Using the village forestry flipchart as an extension aid material- The participants acquire practical knowledge and skills in using the village forestry flipchart as an extension aid material.
Lesson 1.2.3.1
Procedures in planning and conducting village forestry extension work

Objective

At the end of the lesson, the participants should be able to explain the procedures in planning and conducting village forestry extension work.

Methods

Group discussion, lecture, and sharing of experiences.

Material

Handout on sample of an action plan for village forestry extension.

Time

Two hours.

Process

1. Ask the participants to discuss their own understanding and experience in planning and conducting extension work in the villages.

2. Summarize the important points of the discussion and fill the gap in participants’ understanding by giving a brief lecture using the learning notes.

Leaning notes

What are the procedures in planning and conducting village forestry extension work in the villages?

Planning and preparing for the village forestry extension work

Step 1  The composite village forestry team (i.e. DAFO extension worker and a core of key villagers) are provided adequate knowledge and skills in communication, participatory extension methods and techniques, use of visual aid extension materials, etc.

Step 2  The composite village forestry extension team discusses and determines the specific objectives and Expected outcomes of the village forestry extension work.

Step 3  The composite village forestry extension team reviews the results of the PRA (e.g. social mapping, census mapping, wealth ranking, seasonal calendar, Venn diagram, village land use mapping, participatory village forest inventory) and uses this information for planning the extension work in the village (e.g. scheduling of extension work, determining extensions targets, and identifying the extension units).
**Step 4** The composite village forestry extension team discusses and identifies the villagers targeted by the extension work.

**Step 5** The composite village forestry extension team discusses and determines the best combination of extension methods (e.g. individual, group, or mass) to be used to achieve the extension objectives and outputs. (Refer the guide in selecting extension methods in lesson 1.2.2.4)

**Step 6** The composite village forestry extension team assesses the appropriate extension unit for conducting the extension work to reach the largest number of target villagers (*nouays* or groups of households, village assembly meeting, etc.)

**Step 7** The composite village forestry extension team reviews the PRA results and other available materials relevant to the extension objectives, methods, targeted villagers, and discusses how to simplify and present them in a format (e.g. drawings, diagrams, maps, charts) that is easily understood by villagers. Use these materials as extension aids.

**Step 8** The composite village forestry extension team summarizes all the above information in a simple action plan (see sample) that will guide them in conducting the extension work in the village. The action plan includes: (a) extension objectives, (b) Expected outcomes, (c) target villagers, (d) extension methods, (e) extension support materials, (f) activities, (e) schedule, (f) persons responsible, and (h) budget (if any).

*Conducting the village forestry extension work*

**Step 9** The composite village forestry extension team discusses the action plan with the VFA management committee and the village administration for approval.

**Step 10** The composite village forestry extension team conducts the extension work in accordance with the approved action plan.
Handout no. 1.2.3.1.1- Sample action plan for village forestry extension

1. Name of village(s) ________________________________________________________
2. Dates of extension work: _________________________________________________
3. Extension objective(s) ____________________________________________________
4. Expected outcome(s) _____________________________________________________
5. Target villagers _________________________________________________________
6. Extension methods _______________________________________________________
7. Extension support materials _____________________________________________
8. Total budget (if any) ____________________________________________________

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target</th>
<th>Schedule (Dates)</th>
<th>Persons Responsible</th>
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<tbody>
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Prepared by Attested by:

_________________________ __________________________ _________________
Head Chairperson/Manager Village Chief
Composite VF Extension Team Organization for village forestry
Lesson 1.2.3.2
Procedures in evaluating and reporting village forestry extension work

Objective

At the end of the lesson, the participants should be able to explain the procedures in evaluating and reporting village forestry extension work.

Methods

Group discussion, lecture, and sharing of experiences

Materials

Handout on sample report on village forestry extension work

Time

Two hours

Process

1. Ask the participants to discuss their own understanding and experience in evaluating and reporting extension work in the villages.

2. Summarize the important points of the discussion and fill the gap in participants’ understanding by giving a brief lecture using the learning notes.

Learning notes

What are the procedures in evaluating and reporting village forestry extension work in the villages?

Evaluating and reporting the village forestry extension work

Step 1  The composite village forestry extension team meets to review the action plan on village forestry extension and to discuss the outcomes of the extension work including problems encountered and recommends actions needed to improve subsequent extension work in the village.

Step 2  The composite village forestry extension team prepares a report of the village forestry extension work (see handout) and submits to the VFA management committee, village administration, and DAFO as may be required.
Handout no. 1.2.3.2.1- Sample report on village forestry extension work

1. Name of village(s) ________________________________________________________
2. Dates of extension work:___________________________________________________
3. Extension objective(s) _____________________________________________________
   _________________________________________________________________________
4. Extension methods ________________________________________________________
5. Extension support materials _____________________________________________
6. Total budget (if any) _____________________________________________________

<table>
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<tr>
<th>Activity</th>
<th>Target</th>
<th>Accomplished</th>
<th>Date accomplished</th>
<th>Persons responsible</th>
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Prepared by Attested by:

_____________ _______________ _________________
Head Chairperson/Manager Village Chief

Noted by:

_____________
Head of DAFO
Lesson 1.2.3.3
Using the village forestry flipchart as an extension aid material

Objective

At the end of the lesson, the participants should be able to use the village forestry flipchart as an extension aid material

Methods

Lecture-discussion, demonstration, practicum, and role play

Materials

Village forestry flipchart and flipchart stand

Time

Two hours

Process

1. Give a brief lecture and demonstrate how to properly use the village forestry flipchart as an extension aid material using the learning notes as guide.

2. Conduct a role play. Ask a participant to play the role of an extension worker who is introducing village forestry to villagers using the flipchart. After the presentation, ask the other participants to discuss and make comments on the presentation using the following guide questions:

   • Was the village forestry flipchart presented properly? Step by step?
   • Which areas of the presentation need further improvement?
   • Was the presentation conducted in a participatory manner or two-way communication process?
   • Were each topic thoroughly discussed?
   • Was there a good and logical transition from the use of one flipchart to the next? Did the presenter use the flipcharts back and forth, as needed?
   • Was there time allocated for questions or clarification from the audience?
   • Was the presentation clear and easy to understand?
   • Was the presentation slow or fast, long or short?
   • Was the presentation audible?

3. If time permits, repeat the process using another participant.

4. Summarize the results of the role play and make suggestions on how to improve the use of the flipchart as an extension aid material in village forestry.
Handout no. 1.2.3.3.1- Guidelines in using the village forestry flipchart as an extension aid material

Step 1. The village chief or a key villager makes a brief introduction of the village forestry flipchart presentation.

Step 2. The presenter, with the assistance of the DAFO extension worker, starts an interactive discussion with the villagers on the benefits that they derive from the forest using flipchart no. 1.

Initial guide question
• What benefits do villagers get from the forest?

After the discussion, transitory guide questions are used to introduce the next flipchart as follows:

Transitory guide questions
• Do the villagers want the benefits from the forests to continue?
• How should the villagers use the forest so that they will continue to get benefits from the forest?
• What are the effects if the villagers use the forest on a sustainable or non-sustainable way?

Step 3. Interactive discussion proceeds to flipcharts no. 2a and 2b to introduce the concept of sustainable use of forest. The scenarios of non-sustainable (flipchart no. 2a) and sustainable (flipchart no. 2b) uses of the forest are discussed, giving the villagers some time to analyze the two scenarios and to discuss among themselves. The villagers are then asked to choose the scenario they like most. Then a transitory guide question is used to introduce flipchart no. 3.

Transitory guide question
• What activities should be undertaken by villagers to ensure sustainable use of the forest and to avoid its destruction?

Step 4. Interactive discussion proceeds to flipchart no. 3 to introduce the concept of forest management and its activities, beginning with those activities familiar to villagers (such as protection of forest from fire). Transitory guide questions are then used to introduce flipchart no. 4.

Transitory guide questions
• Can these activities be done solely by the villagers? If not, ask why not? If yes, probe.
• Can these activities be done solely by the state forestry staff? If not, ask why not? If yes, probe.

Step 5. Interactive discussion proceeds to flipchart no. 4 to introduce the concept of village forestry and partnership between villagers and state forestry staff. Transitory guide questions are then used to introduce flipchart no. 5.
Transitory guide questions
• Why is there a need for village forestry and for a partnership between the villagers and state forestry staff in sustainably managing the forest?
• Why is village forestry or this partnership between the villagers and state forestry staff important?
• What are the objectives of village forestry or this partnership in sustainable forest management?

Step 6. Interactive discussion proceeds to flipchart no. 5 to introduce the objectives of village forestry. Flipchart no. 2b is also used along with the discussions on sustainable use of forest and continued flow of forest benefits to villagers that eventually leads to the improvement of living condition of villagers. A transitory guide question is then used to introduce flipchart no. 6.

Transitory guide question
• To attain the objectives of village forestry, what are the activities that should be undertaken together by the villagers and the state forestry staff?

Step 7. Interactive discussion proceeds to flipchart no. 6 to introduce village forestry activities and roles of villagers and the state forestry staff.

Step 8. A brief summary of the completed village forestry flipchart presentation is finally made.
Flipchart no. 1- Benefits derived from the forest
Flipchart no. 2a- Non-sustainable use of forest
Flipchart no. 2b- Sustainable use of forest
Flipchart no. 3- Concept of forest management and its activities
Flipchart no. 4- Village forestry and the partnership between villagers and state forestry staff
Flipchart No. 5 – Objectives of village forestry
Flipchart no. 6 – Village forestry activities and roles of villagers and state forestry staff
Course 1.3
Participatory rural appraisal

Introduction

The course is aimed at strengthening the capabilities of (a) PAFO trainers in training state forestry staff and villagers in conducting participatory rural appraisal, (b) DAFO extension workers in facilitating and assisting villagers in conducting PRA and (c) villagers in conducting participatory rural appraisal.

The lessons are designed to provide state forestry staff and villagers with a better understanding of (a) the bio-physical, socio-economic, and institutional characteristics of the village through participatory rural appraisal, and (b) the use of PRA information as basis for designing, implementing, and managing village forestry activities.

Contents

The course consists of two modules:

**Module 1.3.1 Introduction to participatory rural appraisal**- In this module, the participants are provided a better understanding of participatory rural appraisal and its differences with rapid rural appraisal. The participants also learn about the principles and characteristics of a good PRA. They acquire the knowledge and skills in planning and conducting PRA

**Module 1.3.2 Using selected PRA methods and tools**- The participants learn how to use selected PRA methods and tools in village forestry such as semi-structured interview, time chart or seasonal calendar, pair-wise ranking, Venn diagram, village profiling, social mapping, census mapping, and wealth ranking.
Module 1.3.1
Introduction to participatory rural appraisal

Introduction

This module is aimed at providing the participants with a better understanding of participatory rural appraisal and the characteristics of a good PRA facilitator. The participants learn some practical guidelines and procedures for planning and conducting a participatory rural appraisal.

Contents

The module consists of three lessons:

Lesson 1.3.1.1 Understanding participatory rural appraisal- In this lesson, the participants learn about participatory rural appraisal and its differences with rapid rural appraisal.

Lesson 1.3.1.2 Guidelines and procedures for planning and conducting participatory rural appraisal- The participants are provided with the knowledge and skills in planning and conducting participatory rural appraisal

Lesson 1.3.1.3 Characteristics of a good PRA facilitator- The participants acquire better understanding of the characteristics of a good PRA facilitator.
Lesson 1.3.1.1
Understanding participatory rural appraisal (PRA)

Objectives

At the end of the lesson, the participants should be able to
1. describe participatory rural appraisal; and
2. differentiate participatory rural appraisal with rapid rural appraisal.

Methods

Lecture-discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

45 minutes

Process

1. Ask the participants to discuss their own understanding of participatory rural appraisal and the difference between PRA and rapid rural appraisal. List the outputs of the discussion on a large brown sheet of paper.

2. Summarize the output of the discussion and fill the gaps in participants’ understanding by giving a brief lecture using the learning notes.

Learning notes

What is participatory rural appraisal?

Appraisal – The finding out of information about problems, needs, and potential in a village. It is the first stage in any project.

Participatory – Means that people are involved in the process – a “bottom-up” approach that requires good communication skills and attitude of state forestry staff.

Rural – The techniques can be used in any situation, urban or rural, with both literate and illiterate people.

PRA is intended to enable local communities to conduct their own analysis and to plan and take action (Chambers R. 1992). PRA involves state forestry staff learning together with villagers about the village. The aim of PRA is to help strengthen the capacity of villagers to plan, make decisions, and to take action towards improving their own situation.
What are the differences between PRA and RRA?

<table>
<thead>
<tr>
<th>Rapid Rural Appraisal (RRA)</th>
<th>Participatory Rural Appraisal (PRA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning rapidly and directly <strong>from</strong> villagers State forestry staff learn and obtain information, take it away, and analyze it. It is <em>extractive</em> (information is gathered and used according to the needs of the state forestry staff).</td>
<td>Learning <strong>with</strong> villagers Facilitate local capacity to analyze, plan, make decisions, take action, resolve conflicts, monitor, and evaluate according to the needs of the villagers.</td>
</tr>
</tbody>
</table>
Lesson 1.3.1.2
Guidelines and procedures in planning and conducting PRA

Objectives
At the end of the lesson, the participants should be able to discuss the guidelines and procedures in planning and conducting a participatory rural appraisal.

Methods
Lecture-discussion

Materials
Large brown sheets of paper, marker, and masking tape

Time
One hour

Process
1. Ask the participants to discuss their own understanding of the guidelines and procedures in planning and conducting PRA. List the outputs of the discussion on a large brown sheet of paper.

2. Summarize the output of the discussion and fill the gaps in participants’ understanding using the learning notes.

Learning notes
What are the guidelines in planning and conducting PRA?

- **Learning with villagers** – Where they live, face to face. Learning physical, social, and technical knowledge.

- **Learning rapidly and progressively** – Explore, be flexible, look for opportunities, and improvise.

- **Be aware of biases** – Be relaxed. Do not rush. Ask questions and listen. Be humble and respectful. Look for opportunities for representations from the poorest, women, and powerless.

- **Get enough information but not too much which is unnecessary.**

- **Crosscheck by using different methods (triangulation).**

- **Facilitation is the outsider’s role** – Help villagers to do the investigation, analysis, presentation, and learning, *themselves*. As an outsider, start the process and then stand back, and letting the villagers get on with it. Do not interrupt.
• **Critical self-awareness and responsibility** – As a facilitator keep examining your behavior and try to do this work of encouraging and strengthening villagers better.

• **Sharing** – Of information and ideas between villagers themselves, villagers and facilitators, and amongst facilitators.

**What are the procedures in conducting participatory rural appraisal?**

**Step 1** The state forestry staff prepares the necessary materials in conducting PRA work in the village.

**Step 2** The state forestry staff meets with the village administration, VFCG, and key villagers to discuss the objectives, Expected outcome, processes, and requirements (e.g. organizing village PRA teams) in conducting joint PRA work in the village. The state forestry staff also explains how the PRA results can be used in planning, implementing, and managing initial village forestry activities in the village.

**Step 3** The state forestry staff discusses with the village administration and VFCG the criteria for organizing a PRA composite team made up of VFCG, state forestry staff, and key villagers including women. The roles of the villagers (lead the PRA process) and state forestry staff (provide technical assistance and facilitates the PRA process) are discussed and agreed upon.

**Step 4** The composite PRA team meets to discuss the procedures, requirements, and Expected outcomes from the PRA work.

**Step 5** The composite PRA team plans and prepares for the conduct of PRA work.

**Step 6** The composite PRA team undertakes the PRA exercises.

**Step 7** The composite PRA team reviews the processes and outputs of the PRA exercises and discusses how it can be used in planning, implementing, and managing initial village forestry activities in the village.

**Step 8** The composite PRA team reports the PRA results to the village administration and village assembly.
Lesson 1.3.1.3
Characteristics of a good PRA facilitator

Objective
At the end of the lesson, the participants should be able to explain the characteristics of a good PRA facilitator.

Methods
Lecture-discussion

Materials
Large brown sheets of paper, marker, and masking tape

Time
45 minutes

Process
1. Ask the participants to discuss their own understanding of the characteristics of a good PRA facilitator. List the outputs of the discussion on a large brown sheet of paper.
2. Summarize the outputs of the discussion and fill the gaps in participants’ understanding by giving a brief lecture using the learning notes.

Learning notes

**What are the characteristics of a good PRA facilitator?**

Appropriate behavior and attitude of a facilitator is the key to a successful PRA. A good PRA facilitator is characterized by a behavior and attitude that:

- Build rapport with men and women, rich and poor, young and old, and people with different ethnic or social group backgrounds.
- Being friendly, interested, culturally sensitive, relaxed and open, avoiding making people feel uncomfortable.
- Listening and probing, and leaving time in conversation for additional comments.
- Selecting PRA tools that suit local conditions and recognizing that not all PRA tools are suited to all situations or social groups.
- Engaging in conversations that have a two-way exchange of information.
- Being patient but proceeding at a moderate pace.
- Seeking views of the weaker, less influential people or groups.
- Sharing information.
- Giving people enough time to communicate and consider ideas.
- Being self-aware and self-critical, using own judgment, avoiding personal biases.
• Learning from people, not lecturing.
• Checking and rechecking the validity of information using different sources.
• Frequently reflecting on what information has been gained and where the gaps are.
• Identifying and testing assumptions.
• Admitting error and learning from mistakes.
• Trying to ensure that villagers’ expectations are not raised too early, and avoiding making promises that cannot be fulfilled.
• Asking questions that invite explanations or viewpoints rather than yes or no.
• Scheduling PRA activities so that they fit in as much as possible with seasonal and daily routines of villagers.
Module 1.3.2
Using selected PRA methods and tools

Introduction

The module is aimed at providing the participants with knowledge and skills in using selected PRA methods and tools (i.e. semi-structured interview, time chart or seasonal calendar, pair-wise ranking, Venn diagram, village profiling, social mapping, census mapping, and wealth ranking) in village forestry work.

Contents

The module consists of eight lessons:

Lesson 1.3.2.1 Using PRA method: Semi-structured interview (SSI)- In this lesson, the participants learn how to use the PRA method of semi-structured interview (SSI) in village forestry.

Lesson 1.3.2.2 Using PRA method: Time chart (Seasonal calendar)- The participants learn how to apply the PRA method of time chart or seasonal calendar in village forestry.

Lesson 1.3.2.3 Using PRA method: Pair wise-ranking- The participants acquire the knowledge and skills in using the PRA method of pair-wise ranking in village forestry.

Lesson 1.3.2.4 Using PRA method: Venn diagram- The participants learn how to apply the PRA method of Venn diagram in village forestry.

Lesson 1.3.2.5 Using PRA method: Village profiling- The participants learn how to use the PRA method of village profiling in village forestry.

Lesson 1.3.2.6 Using PRA method: Social mapping - The participants acquire the knowledge and skills in applying the PRA method of social mapping in village forestry.

Lesson 1.3.2.7 Using PRA method: Census mapping- The participants learn how to use the PRA method of census mapping in village forestry.

Lesson 1.3.2.8 Using PRA method: Wealth ranking- The participants learn how to apply the PRA method of wealth ranking in village forestry.
Lesson 1.3.2.1
Using PRA method: *Semi-structured interview (SSI)*

**Objective**

At the end of the lesson, the participants should be able to explain and demonstrate the use of a semi-structured interview.

**Methods**

Group discussion, demonstration, peer tutoring, and role play.

**Materials**

Handout on sample checklist of PRA topics and guide questions.

**Time**

Two hours.

**Process**

1. Discuss with the participants the PRA method of semi-structured interview and how to use it using the learning notes.
2. Discuss with the participants the content of the checklist of PRA topics and guide questions (see handout).
3. Select some participants to conduct a role play on SSI using the sample guide question.
4. Process and discuss the completed role play on using the semi-structured interview.

**Learning notes**

What is a semi-structured interview?

A semi-structured interview is a PRA method that engages villagers in a conversation through a series of guide questions (not structured questionnaire) relevant to the villagers. Important information is generated by talking with villagers about topics that interest them. SSI can be used with individuals, key informants, interest groups or other small groups of villagers (i.e. women’s groups).
What are the procedures in using a semi-structure interview (SSI)?

**Step 1** Prepare a checklist of topics and guide questions for discussion and record these in a notebook.

**Step 2** Select individuals, key informants, interest groups, or other small groups of villagers to interview. Get a good representation of the villagers- spatial, gender, wealth class, etc.

**Step 3** Select time and location where the conduct of SSI cannot be disturbed or disrupted.

**Step 4** Observe proper interviewing techniques.

**Step 5** Use the checklist of topics and guide questions (see sample) but allow flexibility in the conversation so that issues can be explored as they arise.

**Step 6** Probe (use relevant follow up questions as needed).

**Step 7** Ask questions that are relevant to the villagers being interviewed (individual or group).

**Step 8** Use open-ended questions (not answerable by yes or no).

**Step 9** Record the important points in each interview in a notebook.

**Step 10** Modify the checklist of topics and guide questions as new issues arise during the conversation.
Handout no. 1.3.2.1.1 - Checklist of PRA topics and guide questions

Bio-physical

Guide-questions

1. What are the perceptions of villagers regarding the confirmation of their village boundary? What are the implications of the confirmation of village boundaries amongst villagers in terms of customary rights, access, use, and protection of forest resources? (Semi-structured interview)

2. What type(s) of forest do you have within the confirmed boundaries of the village? How far is the forest(s) from the village settlement? Do you share the forest(s) with other villages? If yes, specify the name of villages. What do you mean by “sharing with other villages” in terms of access, use, and protection of forest resources? Did you encounter any problem or foresee potential problems in sharing the forest resources with other villages? Explain (Semi-structured interview, key informants interviews).

3. How do the villagers benefit (directly or indirectly) from the forest(s)? What forest products do you collect from the forest(s)? By whom? How often? (SSI, key informants interview).

4. What activities do the villagers undertake in the forest(s)? How often? (SSI, key informants interview).

Checklist of topics

- Demarcation and confirmation of village boundary (perceptions and implications)
- Village forests and forest resource sharing
- Forest benefits/forest products collected
- Forest activities

Socio-economic

Guide questions

1. How many households are there in the village …groups of households (nouays)? …families? …people? …age classes, and what is the gender distribution? (SSI, key informants interviews, secondary data).

2. How many families are original residents? How many families are new in-migrants? When did they migrate? From where? How many families out-migrated? To where? When? Why? (SSI, key informants interviews, secondary data).

3. What is the average number of births in a year? What is the average number of deaths in a year? Adults? Children below 5 years? What are the main causes of death. (SSI, key informants interview, secondary data).

4. What are the languages/dialects spoken in the village? Ethnic/tribal groupings? (SSI, key informant interviews, direct observation).
5. What are the religion(s) existing in the village? (SSI, key informants interview, direct observation).

6. How many people in the village can read and/or write? Amongst men? Amongst women? Do villagers need to develop their literacy skills? Why and when? (SSI, key informants interview, direct observation).

7. What are the main problems and basic needs of the villagers. What actions/solutions do the villagers intend to take to solve/respond to their problems or basic needs? (SSI, pair wise ranking).

8. What are the main sources of livelihood of villagers?

9. What are the other sources of income? What are the major crops, livestock, and other items produced in the village? What are the major production problems? How and where are the products marketed? (SSI, key informant interview, direct observation, secondary data).

10. How is labour in the village utilized throughout the year? (SSI, time chart or seasonal calendar).

11. What are the existing socio-economic facilities available in the village? i.e. schools, temples, health centres, water sources, rice mills, recreation centres, etc. (SSI, direct observation).

12. How can the village be accessed? How far is the village from the district? What are the means of transport available to villagers? (SSI, key informants interview, direct observation).

13. What are the prevalent diseases in the village and their main causes? (SSI, key informants interview, secondary data).

14. What are the traditional festivals commonly celebrated in the village? When? (SSI, key informants interview).

**Checklist of topics**

- Population
- Migration
- Birth/death rate
- Languages spoken/ethnic groups
- Religion
- Literacy rate
- Main problems/basic needs of villagers
- Sources of livelihood/income
- Village labor utilization
- Existing socio-economic facilities
- Accessibility/available means of transport
- Prevalent diseases and causes
- Traditional festivals
Institutional

Guide questions

1. What is the history of the village? When and how was the village established? Where did the original residents migrate from? Why did they migrate? (SSI, key informants interview).

2. What are the existing organizational structures in the village? (Venn diagram, SSI, key informants interview).

3. Who are the key leaders perceived by the villagers? Why are they perceived as key leaders? (SSI).

4. What agencies or organizations are providing assistance or services to the village? What assistance or services are provided (e.g. health, veterinary, agricultural, forestry services)? How often are these services provided? (SSI, Venn diagram, key informants interview).

5. How are information and/or new ideas communicated and disseminated to the villagers? What are the common communication media (verbal, written, audio, audio-visual) used in the village (SSI, direct observation).

Checklist of topics

- Village history
- Existing village structures
- Key village leaders
- Assisting organizations and services
- Communication patterns
Lesson 1.3.2.2
Using PRA method: *Time chart (Seasonal calendar)*

Objective

At the end of the lesson, the participants should be able to explain and demonstrate the use of a time chart (seasonal calendar).

Methods

Group discussion, demonstration, peer tutoring, and guided exercise.

Materials

Handout on sample of a time chart or seasonal calendar, sheets of paper, ruler and pen.

Time

Two hours.

Process

1. Discuss with the participants the PRA tool-time chart or seasonal calendar and how to use it using the learning notes.

2. Ask the participants to conduct an exercise in preparing a time chart (seasonal calendar).

3. Process and discuss the results of the exercise in preparing a time chart (seasonal calendar).

Learning notes

What is a time chart (seasonal calendar)?

A time chart (seasonal calendar) is a PRA method that determines patterns and trends throughout the year in a certain village. It can be used for purposes such as rainfall distribution, food availability, agricultural production, income and expenditures, health problems, and others.

The time chart (seasonal calendar) can also be used to collect information on how villagers allocate their time as well as their labor in various activities within the village (see handout). Since village forestry is an important activity in the village, it is essential to determine how villagers are presently utilizing their time and labor in existing village activities.
What are the procedures in preparing a time chart or seasonal calendar?

A time chart or seasonal calendar is prepared by drawing a two-dimensional matrix and writing the time period (i.e. month, year) on an axis and the different village activities on the other axis. Villagers are encouraged to fill in the matrix of the chart/calendar by marking the grid or by placing stones or other objects on the matrix. A time chart (seasonal calendar) can be prepared on the ground, a large sheet of paper, or a blackboard. The procedures for preparing a time chart or seasonal calendar are:

**Step 1** Select time and location where the conduct of the time chart exercise is undisturbed or undisrupted.

**Step 2** Identify key informants or knowledgeable villagers who are willing and able to participate in the time chart exercise. Get good representation of the villagers--spatial, gender, wealth class, etc.

**Step 3** Explain and agree on the purpose or objective of the exercise before starting.

**Step 4** Brief the villagers on how to conduct the exercise. Discuss Expected outcome and its usage.

**Step 5** Agree and list the activities of villagers then prepare a two-dimensional matrix by writing the months of the year along one axis and the activities along another axis. Ask the villagers to mark the grid by indicating what months of the year they undertake each activity.

**Step 6** Encourage discussion while the exercise is being conducted to enhance probing and cross checking of information.

**Step 7** At the end of the exercise, briefly discuss the results and analyze the time chart/seasonal calendar together with villagers.

**Step 8** Record the details of the exercise in a notebook for future reference.
Handout 1.3.2.2.1- Sample of a time chart or season calendar on labor utilization in Ban Bakhoumkham, Thangpong district, Savannakhet

<table>
<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
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</tr>
</tbody>
</table>

**Legends**

- **Activities done by women**
- **Activities done by men**
- **Activities done by both men and women**
Lesson 1.3.2.3
Using PRA method: *Pair-wise ranking*

**Objective**

At the end of the lesson, the participants should be able to explain and demonstrate the use of pair-wise ranking

**Methods**

Group discussion, demonstration, peer tutoring, and guided exercise

**Materials**

Large sheets of paper, ruler, pen, masking tape, blackboard, chalk, eraser
Handout on sample of a pair-wise ranking

**Time**

Two hours

**Process**

1. Discuss with the participants the PRA method of pair-wise ranking and how to use it using the learning notes.

2. Ask the participants to conduct an exercise in using pair-wise ranking.

3. Process and discuss the results of the exercise in using pair-wise ranking.

**Learning notes**

**What is pair-wise ranking?**

Pair-wise ranking is a PRA method that helps villagers to set priorities (i.e. problems, needs, actions, etc.). Ranking can be undertaken with key informants or group of villagers that represents a good mixture of interests. It can also be conducted based on gender to determine different preferences between men and women. For simple issues (i.e. problems), villagers can rank them during the semi-structured interview. For complicated issues, ranking can be undertaken using pair-wise ranking in order to determine the villagers’ preferences.

**What are the procedures in using pair-wise ranking?**

**Step 1** Select time and place where the conduct of the ranking (pair-wise ranking) exercises will not be disturbed or disrupted.

**Step 2** Look for key informants or other knowledgeable villagers who are willing and able to participate in the ranking exercise. Get good representation of the villagers in terms of spatial distribution, gender, wealth class, etc.
Step 3  Explain and agree on the purpose and objectives of the exercise before starting. Brief the villagers on how to conduct the exercise. Discuss Expected outcome and its usage.

Step 4  Ask the villagers to identify and prepare a list of issues (i.e. problems) to be ranked.

Step 5  Prepare a matrix on a large sheet of paper or blackboard. Indicate the issues on the top left side of the matrix.

Step 6  To get the villagers’ preferences (through voting), facilitate the comparison of issues with one another. The first issue listed on the left side of the matrix will be compared with all the issues listed on the top. Repeat the process until all the issues have been covered.

Step 7  Note (write down) the number of times each problem was preferred. Make a summary of the preferences and rank them accordingly.

Step 8  Encourage discussions while the exercise is being conducted to enhance probing and cross checking of information. Ask the villagers’ reasons for their choices and note these reasons.

Step 9  Give enough time to villagers to discuss. Do not rush the exercise.

Step 10 At the end of the exercise, briefly discuss, analyze, and summarize the results together with villagers.

Step 11 Record the details of the exercise in a notebook for future reference
Handout no. 1.3.2.3.1 - Sample of pair-wise ranking

Ranking the basic needs of villagers in Nonsombat village, Songhone district, Savannakhet province.

<table>
<thead>
<tr>
<th>Road</th>
<th>Irrigation</th>
<th>Road</th>
<th>Irrigation</th>
<th>Road</th>
<th>Irrigation</th>
<th>School</th>
<th>Health center</th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td>Road</td>
<td>Irrigation</td>
<td>School</td>
<td>Health center</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Temple</td>
<td>Road</td>
<td>Irrigation</td>
<td>School</td>
<td>Health center</td>
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<tr>
<td>Health Center</td>
<td>Road</td>
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<td>School</td>
<td>Temple</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Latrine</td>
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<td>Irrigation</td>
<td>School</td>
<td>Temple</td>
<td>Health center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic Needs</td>
<td>Road</td>
<td>Irrigation</td>
<td>School</td>
<td>Temple</td>
<td>Health Center</td>
<td>Latrine</td>
<td></td>
</tr>
</tbody>
</table>

Result of pair-wise ranking of basic needs

<table>
<thead>
<tr>
<th>Basic needs</th>
<th>Score</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Irrigation</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>School</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Temple</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Health center</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Latrine</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>
Lesson 1.3.2.4
Using PRA method: Venn diagram

Objective

At the end of the lesson, the participants should be able to explain and demonstrate the use of a Venn diagram

Methods

Group discussion, demonstration, peer tutoring, and guided exercise

Material

Large sheets of paper, ruler, pen, masking tape, blackboard, chalk, eraser
Handout on sample of a Venn diagram

Time

Two hours

Process

1. Discuss with the participants the PRA method--Venn diagram-- and how to use it using the learning notes.

2. Ask the participants to conduct an exercise in using a Venn diagram.

3. Process and discuss the results of the exercise in using a Venn diagram.

Learning notes

What is a Venn diagram?

A Venn diagram is a PRA method that shows the key institutions, organizations, or groups as well as influential individuals in a village and their relationships and importance in decision making. A Venn diagram can be prepared on the ground, a large sheet of paper, or a blackboard. The villagers should draw their own Venn diagrams.

What are the procedures in using a Venn diagram?

Step 1  Select time and place where the preparation of the Venn diagram will not be disturbed or disrupted.

Step 2  Identify key informants or knowledgeable villagers who are willing and able to participate in the preparation of the Venn diagram. Get good representation of the villagers.
Step 3 Explain the purpose and objectives of the Venn diagram before starting. Brief the villagers on how to prepare the Venn diagram, discuss Expected outcome and its usage.

Step 4 Identify key organizations, institutions, groups or important individuals in the village involved in decision making or having strong influence in the village.

Step 5 Identify the degree of importance, contact, and overlap between these organizations, institutions, groups, or individuals.

Step 6 Get information from key informants, groups of villagers, and secondary data.

Step 7 Draw circles to represent each village institution, organization, or group (colors can be used to represent different organizations, institutions, groups or individuals). The size of the circle indicates importance or scope. The distance of circle from the village indicates degree of importance of institutions, organizations, groups or individuals to the village.

Step 8 Arrange circles as follows:

- separate circles …… no contact
- touching circles…… information passes between institution or organization
- small overlap ……… some cooperation in decision making
- large overlap ……… considerable cooperation in decision making

Step 9 Encourage discussions while the exercise is being conducted to enhance cross checking and probing.

Step 10 At the end of the exercise, briefly discuss and analyze the results together with villagers.

Step 11 Record the details of the exercise in a field notebook for future reference.
Handout no. 1.3.2.4.1 - Sample Venn diagram of Nongkone village, Songkone district, Savannakhet

Nongkone village

Naudoum village

Sub-district

Nonbokeo village

Nonbombat village

District education office

District health office

Women Union

Youth Union

Village chief

Village military/police

Village Elders
Lesson 1.3.2.5
Using PRA method: Village profiling

Objectives

At the end of the lesson, the participants should be able to:

1. explain and demonstrate the use of village profiling
2. prepare a simple profile of their respective village

Methods

Lecture-discussion and group work

Materials

Village land use map, large sheets of paper, marker and masking tape
Handout on sample of a village profile

Time

Two hours

Process

1. Discuss with the participants the PRA method--village profiling-- and how to use it using the learning notes.
2. Facilitate the conduct of village profiling using the procedures and guide questions below:
   • What is the name of your village?
   • Where is the location of your village? How far is your village from the muang?
   • How, when and by what means is your village accessible? (seasonal calendar can be used as reference)
   • What is the history of your village? When and how was it established?
   • What are the basic physical features of your village? i.e. area of village, rice paddies, forests, etc. (village land use map can be used as a reference)
   • What are the basic socio-economic information about your village? i.e. population, percentage of women, number of nouays, number of families, number of households, language/dialects spoken, ethnic grouping, illiteracy rate, religion, average annual income, etc.
   • What are the basic social facilities, infrastructure, and services available in your village? i.e. schools, health centers, pharmacies, temples/churches, recreation, water, rice mills, stores, transport, communication, irrigation, roads/trails, etc.
   • What are the main means of livelihood in your village? i.e. rice and livestock production, handicrafts, forestry, etc.
   • What are the village organizations or groups existing in your village? (Venn diagram can be used as a reference)
• What are the basic needs or main problems in your village? (the pair-wise ranking can be used as a reference)

3. Ask the participants to present and discuss the village profile to the village administration and villagers in a village assembly meeting.

Learning notes

What is village profiling?

Village profiling is a PRA method that can provide basic information that helps both the villagers and forestry staff to know more about a village. It provides information on the bio-physical and socio-economic condition of a village as well as its cultural and social organizations. It helps both the villagers and forestry staff to learn and appreciate the local situation in a village. It serves as a baseline for planning, implementation, monitoring, and evaluation of village development activities (including the selection of village organizing strategy).

What are the procedures in using village profiling?

The PRA method of village profiling can be conducted in close collaboration with the village administration by a village profiling team that may be comprised of the village forestry core group, heads/representatives of nouays, and/or women representatives. The steps in conducting village profiling are as follows:

Step 1 Plan and prepare for the exercise, i.e. how it is going to be done, where will it be done, and why it is necessary to be undertaken?

Step 2 Organize the village profiling team (include women). Orient the team on how to conduct the exercise and its importance.

Step 3 Review the results of the PRA and village land use map. Based on these, discuss what information (or contents) are needed to be included in the village profile and the reasons for its inclusion.

Step 4 Based on the agreed-upon contents, prepare a village profile. Facilitate the exercise to enhance participation. Help the team to get started by handing over the pen or whatever. Work on one item at a time, i.e. finish village history first before proceeding to socio-economic and others. The above questions, among others, can be used as guidelines in the preparation of a village profile.

Step 5 Observe how the exercise (process) is taking place. If at the end of the exercise, you find certain items to have been left out, ask the team about these. Encourage discussions, cross-checking, and analysis of village profile so that key issues can be highlighted.

Step 6 Take note of the process. Indicate the names of the team members to give them credit. Record date and place where the village profile was prepared.
Handout no. 1.3.2.5.1 - Sample of a village profile

### VILLAGE PROFILE

1. **Name of village:** Ban Bakkhoumkham
2. **Location:** 24 kilometers from the North of Thapangthong District.
3. **Village history:** The village was established in 1929. The first settlers originated from Ban Bak at the other side of Xebanghiang river in Champhone District, Savannakhet Province. The reason for migrating was lack of land for agricultural production.
   
   *(Source: Mr. Keo, Mr. Phomma and Mr. Bouatham through semi-structured interview)*

<table>
<thead>
<tr>
<th>4. Physical Information (in ha)</th>
<th>5. Socio-economic data</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Village area</td>
<td>5.1 Population: 597 peoples, 314 females</td>
</tr>
<tr>
<td>4.2 Rice paddy field</td>
<td>5.2 No. of families: 131</td>
</tr>
<tr>
<td>4.3 Low dry dipterocarp forest</td>
<td>5.3 No. of house-holds: 90</td>
</tr>
<tr>
<td>4.4 High dry dipterocarp forest</td>
<td>5.4 Ethnic group: Lao Loum</td>
</tr>
<tr>
<td>4.5 Mixed deciduous forest</td>
<td>5.5 Illiteracy rate: 235 persons</td>
</tr>
<tr>
<td>4.6 Non-productive land</td>
<td>5.6 Religion: Buddhism</td>
</tr>
<tr>
<td>4.7 Sacred forest</td>
<td>5.7 Average annual income: 3,000,000 kip</td>
</tr>
<tr>
<td>4.8 Stream buffer zone area</td>
<td>5.8 Average annual birth rate: 10</td>
</tr>
<tr>
<td>4.9 Total area</td>
<td>5.9 Average annual mortality: 5</td>
</tr>
</tbody>
</table>

*(Source: Village land use mapping)*

<table>
<thead>
<tr>
<th>6. Infrastructures and facilities</th>
<th>8. Liquidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 Education: 1 primary school with 4 class-rooms and 2 teachers.</td>
<td>8.1 Rice production:</td>
</tr>
<tr>
<td>6.2 Water source: Khounkham and Phalon stream, 2 deep wells.</td>
<td>- Total paddy field area: 137 ha</td>
</tr>
<tr>
<td>6.3 Religion facility: Temple</td>
<td>- Total annual rice production: 317.5 tons</td>
</tr>
<tr>
<td>6.4 Transportation: buffalo carts, hand carts, bicycles, trucks, hand tractors, motorcycles.</td>
<td>- Average rice produced per ha: 2.3 tons</td>
</tr>
<tr>
<td>6.5 Agricultural facility: 2 rice mills</td>
<td>- Average annual rice per capita: 531.8 kg</td>
</tr>
</tbody>
</table>

*(Source: Nai Ban)*

<table>
<thead>
<tr>
<th>7. Wealth Ranking</th>
<th>8.4 Handicrafts: Cotton weaving.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very rich: 14 families or 11%</td>
<td>8.5 Forestry activity</td>
</tr>
<tr>
<td>Rich: 34 families or 26%</td>
<td>Collection wood for construction, fire wood, resin and other non-timber forest products.</td>
</tr>
<tr>
<td>Middle: 33 families or 25%</td>
<td><em>(Source: Census mapping)</em></td>
</tr>
<tr>
<td>Poor: 50 families or 38%</td>
<td></td>
</tr>
</tbody>
</table>

*(Source: Village wealth ranking exercise)*

<table>
<thead>
<tr>
<th>9. Existing village organization</th>
<th>10. Basic needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Village committee consisting of a Chairperson and 2 deputies.</td>
<td>Water from deep well and irrigation</td>
</tr>
<tr>
<td>- The members in the committee have elders, village police, village military, youth union, women’s union, village forestry.</td>
<td>Health facility (Medicinal box)</td>
</tr>
<tr>
<td><em>(Source: Village Venn diagram)</em></td>
<td>School</td>
</tr>
<tr>
<td></td>
<td>Rice production: (fertilizer)</td>
</tr>
<tr>
<td><em>(Source: Pair-wise ranking exercise)</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>(Source: Pair-wise ranking exercise)</em></td>
</tr>
</tbody>
</table>

**Prepared by:** Mr. Bougnoed

**Date:** 10.3.1996
**Lesson 1.3.2.6**  
**Using PRA method: Social mapping**

**Objectives**
At the end of the lesson, the participants should be able to:

1. explain and demonstrate the use of social mapping; and  
2. prepare a social map of their village

**Method**
Lecture-discussion and group work

**Materials**
- Village profile, large sheets of paper, pencil, crayons, eraser, and masking tape  
- Handout on sample legends commonly used by villagers in social mapping  
- Handout on sample social map

**Time**
Two hours

**Process**
1. Introduce to the participants social mapping and how to use it using the learning notes.

2. Ask the participants to review the village profile. Based on the village profile, ask the participants to prepare a simple social map using the following guidelines:
   - Where are the locations of the nouays?  
   - Where are the locations of houses in each nouay?  
   - Where are the locations of social facilities/infrastructure features in the village? i.e. school, health center, rice mills, stores, roads, trails, irrigation, water pumps, church, temple, recreation, water, transport, communication, etc.

3. Ask the participants to present and discuss the social map with the village administration and villagers in a village assembly meeting.

**Learning notes**

**What is social mapping?**

Social mapping is a PRA method that involves the sketching/drawing of houses and other social facilities and infrastructure (i.e. temple, stores, rice mills, school, pharmacy, trails and roads, water pumps, irrigation and recreation facilities) in a village. These features have usually not been well specified in the village vision.
setting and village land-use maps. It helps to visualize and situate the location of households and other social facilities/infrastructure in a village. It serves as a baseline for planning, implementation, monitoring, and evaluation of village development activities (including selection of village organizing strategy).

What are the procedures in using social mapping?

The PRA method of social mapping is conducted in close collaboration with the village administration by a village social mapping team that may be comprised of the village forestry core group, heads or representatives of *nouays* and/or women representatives. (The village profiling team may also act as the social mapping team). The steps in conducting social mapping are as follows:

**Step 1** Plan and prepare for the exercise, i.e. how it is going to be done, where it will be conducted, and why it is necessary to be undertaken?

**Step 2** Organize a social mapping team (include women). Orient the team on how to conduct the exercise and its purpose and importance. Discuss what information are needed to be shown on the social map and how it relates to the village land use map, vision setting, and PRA. Allow them to design their own legend or symbol for each category of information to be gathered (see handout).

**Step 3** Choose an appropriate place and medium to conduct the exercise. Among the several media that can be used are the ground (using sticks, pebbles, and other available local materials) floor or flat surface (using chalks, stones, sticks and others) and paper (using crayons, pencil, colored pens, etc.). The team can be consulted about the medium it feels most comfortable to work on.

**Step 4** Facilitate the exercise to enhance participation. Help the team to get started by handing over the pen, stick or whatever. Work on one item at a time, i.e. finish the household locations before proceeding to the locations of social facilities and infrastructure.

**Step 5** Observe how the exercise (process) is taking place. If at the end of the exercise, you find certain items to have been left out, ask the team about these. Encourage discussions, cross-checking, and analysis of the social map so that key issues can be highlighted. Let the team invent their own way of mapping.

**Step 6** List (write down) the heads of houses indicated in the map. In order to keep track of the household heads and their corresponding houses, assign numbers to the houses in the map so that these will match with your list. In assigning numbers, use the *nouay* and house numbers prescribed by the village administration.

**Step 7** Take notes of the process. Copy the map on paper, especially if it was done on the ground or floor or any flat surface for record purposes. Indicate the names of the team members to give them credit, date and place where the map was prepared.

**Step 8** Present and discuss the village profile with village administration and villagers in a village assembly meeting.
Handout no. 1.3.2.6.1. Sample of legends commonly used by villagers in social mapping

<table>
<thead>
<tr>
<th>Legend</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>★</td>
<td>Nueay</td>
</tr>
<tr>
<td>★</td>
<td>House</td>
</tr>
<tr>
<td>★</td>
<td>Rice barn</td>
</tr>
<tr>
<td>★</td>
<td>Group rice barn</td>
</tr>
<tr>
<td>★</td>
<td>Rice mill</td>
</tr>
<tr>
<td>★</td>
<td>Temple</td>
</tr>
<tr>
<td>★</td>
<td>Church</td>
</tr>
<tr>
<td>★</td>
<td>School</td>
</tr>
<tr>
<td>★</td>
<td>Merchandise store</td>
</tr>
<tr>
<td>★</td>
<td>Private deep well water</td>
</tr>
<tr>
<td>★</td>
<td>Group deep well water</td>
</tr>
<tr>
<td>★</td>
<td>Private water pump</td>
</tr>
<tr>
<td>★</td>
<td>Group water pump</td>
</tr>
<tr>
<td>★</td>
<td>Fishpond</td>
</tr>
<tr>
<td>★</td>
<td>Irrigation system</td>
</tr>
<tr>
<td>★</td>
<td>Water dam</td>
</tr>
<tr>
<td>★</td>
<td>Village dispensary</td>
</tr>
<tr>
<td>★</td>
<td>Village administration office</td>
</tr>
<tr>
<td>★</td>
<td>Generator for charging battery</td>
</tr>
<tr>
<td>★</td>
<td>Road</td>
</tr>
<tr>
<td>★</td>
<td>Trail</td>
</tr>
<tr>
<td>★</td>
<td>Village boundary</td>
</tr>
<tr>
<td>★</td>
<td>Nueay boundary</td>
</tr>
<tr>
<td>★</td>
<td>River</td>
</tr>
<tr>
<td>★</td>
<td>Creek</td>
</tr>
</tbody>
</table>
Handout no. 1.3.2.6.2. Sample social map of Ban Nabong, Thapangtong District, Savannakhet Province

Social map of Ban Nabong, Thapangthong District, Savannakhet Province.

Prepared by: Mr Thongkham, Mr Sihone, Mr Kadam Date 5.2.98 Place: Ban Nabong

Legend:
- Nouay
- House
- Rice barn
- School
- Rice mille
- Water pump
- Village boundary
- Nouay Boundary
- Trail
- River
Lesson 1.3.2.7
Using PRA method: Census mapping

Objectives

At the end of the lesson, the participants should be able to:

1. explain and demonstrate the use of census mapping; and
2. prepare a census map of their village.

Method

Lecture-discussion and group work

Materials

Village profile, social map, large sheets of paper, crayons, colored pens, markers, masking tape, paste and cards (4” x 6”), handout on sample of legends commonly used by villagers in census mapping, handout on a sample census card for a household, handout on sample census map, and handout on sample of summary of census mapping

Time

Three hours

Process

1. Introduce to the participants to census mapping and how to use it using the learning notes.

2. Ask the participants to review the PRA results, village profile, and social map. Based on these, ask the participants to prepare a census map for their village using the procedures described in the learning notes.

3. Ask the participants to present and discuss the census map with the village administration and villagers in a village assembly meeting.

Learning notes

What is census mapping?

Census mapping is a PRA method that can provide more detailed information of the village with emphasis on individual households. It gives the villagers and the forestry staff a chance to take a closer look and better understanding of individual households in the village. It offers as an opportunity for the villagers and the forestry staff to identify indicators for planning, implementation, monitoring, and evaluation of village development activities (including selection of village organizing strategy).
What are the procedures for using census mapping?

The PRA method of census mapping is conducted in close collaboration with the village administration by the village census mapping team that may be comprised of the village forestry core group, heads or representatives of nouays and/or women representatives (The social mapping team may also act as the census mapping team). The steps in conducting census mapping are as follows:

**Step 1** Plan and prepare for the exercise, i.e. how it is going to be done, where will it be done, and why it is necessary to be undertaken?

**Step 2** Organize the village census mapping team (include women). Orient the team on how to conduct the exercise and its importance.

**Step 3** Based on the list of household heads generated from the social mapping exercise, prepare cards approximately 4” x 6” in size.

**Step 4** Number the cards and then indicate the names of the households on the cards, one card for every household (see handout). This should be done before the actual census mapping. To facilitate cross-checking, make sure that the card numbers match the numbers assigned to the houses indicated in the social map.

**Step 5** Tape or paste the cards on a large sheet of paper in a consecutive order (see handout). The cards can also be laid out on the floor/ground or on any flat surface.

**Step 6** Discuss the information needed to be obtained. Allow them to design their own legend or symbol for each category of information to be gathered (see handout).

**Step 7** Crayons or stickers of different colors and shapes can be used in recording data on the cards. Seeds, stones, and other local materials can be also be used if census mapping is undertaken on the ground, floor, or on any flat surface.

**Step 8** Proceed with the exercise by asking the village census mapping team to fill out the cards with the needed information. The heads or representatives of nouays can lead in providing the information about households in their respective nouays.

**Step 9** After all the cards have been filled out, consolidate the data (see handout). Encourage discussions and cross-checking, and have the team analyze the results of the exercise.

**Step 10** Indicate the names of the team members on the map including the date and place where the activity was conducted.

**Step 11** Present and discuss the census map with the village administration and villagers in a village assembly meeting.

**Step 12** Take notes of the processes, particularly the difficulties encountered. Also note any new learning which took place in conducting the census mapping exercise.
### Sample of legends commonly used by villagers in census mapping

<table>
<thead>
<tr>
<th>Legend</th>
<th>Description</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>Number of person in the household</td>
<td>2 families</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td>13 persons</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>7 persons</td>
</tr>
<tr>
<td>Literate</td>
<td></td>
<td>6 persons</td>
</tr>
<tr>
<td>Illiterate</td>
<td></td>
<td>8 persons</td>
</tr>
<tr>
<td>Iron sheet roofing</td>
<td></td>
<td>5 persons</td>
</tr>
<tr>
<td>Wooden roofing</td>
<td></td>
<td>5 houses with iron roofing</td>
</tr>
<tr>
<td>Fiber cement roofing</td>
<td></td>
<td>8 houses with wooden roofing</td>
</tr>
<tr>
<td>Grass roofing</td>
<td></td>
<td>4 houses with fiber cement roofing</td>
</tr>
<tr>
<td>Wooden wall</td>
<td></td>
<td>9 houses with grass roofing</td>
</tr>
<tr>
<td>Bamboo wall</td>
<td></td>
<td>8 houses with wooden walls</td>
</tr>
<tr>
<td>Dried leaves wall</td>
<td></td>
<td>7 houses with bamboo walls</td>
</tr>
<tr>
<td>Buffalo</td>
<td></td>
<td>6 houses with dried leaves walls</td>
</tr>
<tr>
<td>Cow</td>
<td></td>
<td>9 buffalo</td>
</tr>
<tr>
<td>Horse</td>
<td></td>
<td>15 cows</td>
</tr>
<tr>
<td>Bicycle</td>
<td></td>
<td>3 horses</td>
</tr>
<tr>
<td>Tractor</td>
<td></td>
<td>3 bicycles</td>
</tr>
<tr>
<td>Motorbike</td>
<td></td>
<td>1 tractor</td>
</tr>
<tr>
<td>Motorboat</td>
<td></td>
<td>1 motorbike</td>
</tr>
<tr>
<td>TV</td>
<td></td>
<td>1 motorboat</td>
</tr>
<tr>
<td>Radio</td>
<td></td>
<td>2 TV</td>
</tr>
<tr>
<td>Sewing machine</td>
<td></td>
<td>2 radio</td>
</tr>
<tr>
<td>Rice mill</td>
<td></td>
<td>1 Sewing machine</td>
</tr>
<tr>
<td>Water pump</td>
<td></td>
<td>1 Rice mill</td>
</tr>
<tr>
<td>Regenerator for charge battery</td>
<td></td>
<td>1 water pump</td>
</tr>
<tr>
<td>Merchandise store</td>
<td></td>
<td>1 Regenerator for charge battery</td>
</tr>
<tr>
<td>Rice barn</td>
<td></td>
<td>1 Merchandise store</td>
</tr>
<tr>
<td>Rice paddy</td>
<td></td>
<td>1 Rice barn</td>
</tr>
<tr>
<td>Fruit garden</td>
<td></td>
<td>2 Rice paddy, 3 ha and 2 ha</td>
</tr>
<tr>
<td>Rice sufficiency</td>
<td></td>
<td>3 Fruit orchard, 2ha mango, 3ha banana</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12 months rice is available to consume</td>
</tr>
</tbody>
</table>
Handout no. 1.3.2.7.2  Sample of a census card for a household of Ban Nabong, Nouay no. 1, Thapangtong District, Savannakhet Province

Household No 2  Nouay No 1
Name of household head Mr Xiangdy 85 year old

Legend:

2  Number of family in the household
13 Number of person in the household
8 Male
5 Female
1 Iron sheet roofing
1 Wooden wall
13 Buffalo
10 Cow
3 Bicycle
2 Tractor for transportation
5 Illiterate
8 Literate
12 Rice sufficiency
Handout no. 1.3.2.7.3  Sample census map of Ban Nabong, Nouay No. 1, Thapangtong District, Savannakhet Province

Legend:
- Number of family in the household
- Number of person in the household
- Male
- Female
- Literate
- Illiterate
- Grass roofing
- Iron roofing
- Wooden roofing
- Wooden wall
- Bamboo wall
- Bicycle

Motorbike
Sewing machine
Water pump
Buffalo
Cow
Tractor for transportation
Rice sufficient for certain month
Rice mill
Rice barn

Prepared by: Mr. Xiang, Mr. Somdy, Mr. Phom
Date: 28.1.98  Place: Ban Nabong
Handout no. 1.3.2.7.4 - Sample summary of census mapping of Ban Nabong,
Nouay no. 1, Thapangthong District, Savannakhet Province

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of households</td>
<td>4</td>
</tr>
<tr>
<td>No. of families</td>
<td>5</td>
</tr>
<tr>
<td>Number of persons</td>
<td>32</td>
</tr>
<tr>
<td>No. of males</td>
<td>18</td>
</tr>
<tr>
<td>No. of females</td>
<td>14</td>
</tr>
<tr>
<td>No. of houses with grass roofing</td>
<td>2</td>
</tr>
<tr>
<td>No. of houses with iron sheet roofing</td>
<td>1</td>
</tr>
<tr>
<td>No. of houses with wooden roofing</td>
<td>1</td>
</tr>
<tr>
<td>No. of houses with bamboo wall</td>
<td>1</td>
</tr>
<tr>
<td>No. of houses with wooden wall</td>
<td>3</td>
</tr>
<tr>
<td>No. of bicycles</td>
<td>6</td>
</tr>
<tr>
<td>No. of sewing machines</td>
<td>1</td>
</tr>
<tr>
<td>No. of rice mills</td>
<td>1</td>
</tr>
<tr>
<td>No. of tractors</td>
<td>1</td>
</tr>
<tr>
<td>No. of water pumps</td>
<td>1</td>
</tr>
<tr>
<td>No. of buffaloes</td>
<td>29</td>
</tr>
<tr>
<td>No. of cows</td>
<td>26</td>
</tr>
<tr>
<td>Rice sufficiency</td>
<td></td>
</tr>
<tr>
<td>12 months with sufficient rice</td>
<td>2 households</td>
</tr>
<tr>
<td>8 months with sufficient rice</td>
<td>1 household</td>
</tr>
<tr>
<td>6 months with sufficient rice</td>
<td>1 household</td>
</tr>
<tr>
<td>No. of literates</td>
<td>19</td>
</tr>
<tr>
<td>No. of illiterates</td>
<td>13</td>
</tr>
<tr>
<td>No. of rice barns</td>
<td>2</td>
</tr>
<tr>
<td>No. of motorbikes</td>
<td>1</td>
</tr>
</tbody>
</table>
Lesson 1.3.2.8
Using PRA method: **Wealth ranking**

**Objective**

At the end of the lesson, the participants should be able to explain and demonstrate the use of wealth ranking

**Methods**

Lecture-discussion and group work

**Materials**

Village profile, social map, census map, large sheets of paper, markers, and masking tapes and cards (3” x 5”), handout on a sample of result on wealth ranking of village households

**Time**

Three hours

**Process**

1. Introduce to the participants to wealth ranking and how to use it using the learning notes.

2. Ask the participants to review the village profile and social map. Based on these, ask the participants to conduct a wealth ranking for households in their respective village using the procedures described in the learning notes.

**Learning notes**

**What is wealth ranking?**

Wealth ranking is a PRA method that determines the economic attributes of households in a village. It shows information on the relative wealth and well-being of households in a village. It helps in determining the social and economic status of households in a village. The information generated by the wealth ranking exercise helps in identifying the poor households in the village. Ranking is done by villagers themselves, and as such gives the forestry staff insights on the actual economic conditions of the village through the eyes of the villagers. It serves as baseline and as an opportunity to identify indicators for planning, implementation, monitoring and evaluation of village development activities (including selection of village organizing strategy).
What are the procedures in using wealth ranking?

The PRA method of wealth ranking is conducted by a number of selected key informants (include women) within the village. The steps in conducting a wealth ranking are as follows:

**Step 1** Plan and prepare for the exercise, ie how it is going to be done, where will it be done, and why it is necessary to be done?

**Step 2** Prepare cards approximately 3” x 5” in size. Allot one card to each household. Assign a number to each household and indicate this on the top right hand corner of the card. To avoid confusion, follow the numbering used in the social and census mapping.

**Step 3** Choose key informants (include women) based on the identified criteria, i.e. they should be knowledgeable about the other households and should represent different economic status in the village. Members of the village forestry core group and heads or representatives of nouays who meet the criteria may be selected.

**Step 4** Select a place where the interview can take place, preferably in the informant’s house where no one is watching. In some places, the topic of wealth is considered sensitive and can be embarrassing on the part of the informants. Sometimes, it can be offending on the part of the one being ranked. Individual interviews are preferred to group interviews.

**Step 5** Explain to the key informant the purpose, importance and use of wealth ranking. Hand over the cards to the respondent one at a time. Ask if the household indicated in the card is rich, poor, or average. The informant should be allowed to classify the household freely. Three to five categories may emerge.

**Step 6** As soon as the informant has ranked the card, ask him/her to place it in its relevant pile. Always ask the reasons for ranking and write down the reasons. These reasons will be used as indicators of the wealth categories that will emerge after the exercise.

**Step 7** When all the cards have been sorted, ask the respondent to review the piles to make sure that the households have been classified correctly. Ask the respondents to rearrange the cards when needed. Ask the reasons for the changes.

**Step 8** After each exercise, make a list of households classified under each pile. If informant number 1 sorted the households in five piles, assign number 5 to the richest and number 1 to the poorest. Numbers 2,3, and 4 are assigned to the not so poor, average, and not so rich categories, respectively. If there are four categories, number 4 will be assigned to the richest and number 1 to the poorest.
Step 9 Compute the average scores for every household using the formula below:

\[
\frac{\text{Category number} \times 100}{\text{Number of categories}}
\]

Example 1. Informant no. 1 made 5 piles/categories. The score for the richest will be computed as follows:

\[
\frac{5 \times 100}{5} = \frac{500}{5} = 100
\]

Therefore, each card in the richest category of 5 piles will be assigned a score of 100.

The score for the poorest category of 5 piles will be computed as follows:

\[
\frac{1 \times 100}{5} = \frac{100}{5} = 20
\]

Each card in the poorest category of five piles will be assigned a score of 20.

Example 2. Another informant made 4 categories. The score for the richest will be computed as follows:

\[
\frac{4 \times 100}{4} = \frac{400}{4} = 100
\]

Each card in the richest category of four piles will be assigned a score of 100.

The score for the poorest will be computed as follows:

\[
\frac{1 \times 100}{4} = \frac{100}{4} = 25
\]

Each card in the poorest category of four piles will be assigned a score of 25.

Step 10 Repeat the process with 3-5 key informants. Then, compute the average score for each household by adding all the scores given by the informants, which will be divided by the number of informants. The bigger the average score, the higher the category or ranking of the household, i.e. households with scores ranging from 90 to 100 will emerge as the richest. The poorest will be those with lower scores.

Step 11 Categorize the households into rich, average, and poor (or into whatever categories that will emerge). The closeness of resulting average scores will determine the number of groupings which should however not exceed the number of piles given by the key informants.
Step 12 Be able to identify wealth indicators or the differences and features/description of the households in each category or grouping.

Step 13 Take notes of the processes, particularly the difficulties encountered. Also note new learning taking place in conducting the wealth ranking exercise.

Handout no. 1.3.2.8.1 - Sample of results of wealth ranking of households
Kengkhene Village, Sebangfai District, Khammouane Province

<table>
<thead>
<tr>
<th>No</th>
<th>Name of household head</th>
<th>Household No</th>
<th>Score</th>
<th>Wealth ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Thao Khammi</td>
<td>3</td>
<td>90</td>
<td>Rich</td>
</tr>
<tr>
<td>2.</td>
<td>Bouthong</td>
<td>9</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Bountha</td>
<td>4</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Si</td>
<td>12</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Nang Song</td>
<td>19</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Thao Lai</td>
<td>24</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Thao Keo</td>
<td>1</td>
<td>75</td>
<td>Average</td>
</tr>
<tr>
<td>8.</td>
<td>Phone</td>
<td>5</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Nang Dok</td>
<td>6</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Nang Ti</td>
<td>8</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Thao Thong</td>
<td>10</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>One</td>
<td>13</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Douang</td>
<td>14</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Saithong</td>
<td>16</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Chanh</td>
<td>20</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Xiang</td>
<td>21</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Mai</td>
<td>22</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Thao Phouvong</td>
<td>2</td>
<td>55</td>
<td>Poor</td>
</tr>
<tr>
<td>19.</td>
<td>Aliang</td>
<td>7</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>Nong</td>
<td>11</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td>Khong</td>
<td>15</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>Lasi</td>
<td>17</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>Vong</td>
<td>18</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>24.</td>
<td>Ma</td>
<td>23</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>Nang Nik</td>
<td>25</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>Thao Toi</td>
<td>26</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

Total of households - 26
Number of rich households - 6 households or 23% of total households
Number of average households- 11 households or 42% of total households
Number of poor households - 9 households or 35% of total households

Sample of criteria used by key informants in wealth ranking of household

<table>
<thead>
<tr>
<th>Rich household</th>
<th>Average household</th>
<th>Poor household</th>
</tr>
</thead>
<tbody>
<tr>
<td>House w/ iron roofing</td>
<td>House w/ wooden roofing</td>
<td>House w/ grass roofing</td>
</tr>
<tr>
<td>House w/ wooden wall</td>
<td>House w/ bamboo wall</td>
<td>House w/ dried leaves wall</td>
</tr>
<tr>
<td>Own a rice mill</td>
<td>Own a paddled boat</td>
<td>Own 1-2 buffaloes</td>
</tr>
<tr>
<td>Own a motor boat</td>
<td>Own 5-10 buffaloes</td>
<td>Own 1-2 cows</td>
</tr>
<tr>
<td>Own 10 cows or more</td>
<td>Own 5-10 cows</td>
<td>Own 1 ha or less</td>
</tr>
<tr>
<td>Own 10 buffaloes or more</td>
<td>Own 2-3 ha rice padd y</td>
<td></td>
</tr>
<tr>
<td>Own 3 ha of rice paddy or more</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Course 1.4
Village organizing

Introduction

The course is aimed at strengthening the capabilities of (a) PAFO trainers in training other forestry staff and villagers in village organizing, (b) DAFO extension workers in providing technical assistance to villagers in village organizing, and (c) villagers in doing village organizing work.

The lessons are designed to introduce the participants to the (a) concept, importance, goals, and process of village organizing, (b) elements of a village organization, and (c) importance of participation and working with groups. The lessons provide the participants with the knowledge and skills in applying basic village organizing skills of consensus building, groundworking and handling meetings.

Contents

The course consists of four modules:

Module 1.4.1 Understanding the process of village organizing - In this module, the participants acquire a better understanding of (a) the rationale, goals and process of village organizing, and (b) the roles of a village organizer.

Module 1.4.2 Overview of the village organization process- The participants are provided with a better understanding of a village organization and how it evolves including the elements of a village organization.

Module 1.4.3 Role of participation and groups in village organizing- The participants learn the importance of participation in village organizing, the forms of participation and the actors that affect villagers’ participation. The participants learn the advantages of working with groups in village organizing.

Module 1.4.4 Learning basic village organizing skills- The participants acquire the knowledge and skills in applying the basic village organizing skills in consensus building, groundworking, and handling meetings.
Module 1.4.1
Understanding the process of village organizing

Introduction

This module is aimed at introducing the participants to the rationale and importance of village organizing and the roles of a village organizer. The participants learn the process of village organizing in village forestry.

Contents

The module consists of two lessons:

Lesson 1.4.1.1 Overview of village organizing- In this lesson, the participants learn the meaning of village organizing and its rationale and importance. The participants acquire a better understanding of the goals of village organizing in village forestry and the roles of a village organizer.

Lesson 1.4.1.2 Village organizing process- The participants learn the process of village organizing in village forestry.
Lesson 1.4.1.1
Overview of village organizing

Objectives

At the end of the lesson, the participants should be able to:
1. explain village organizing and its rationale and importance;
2. discuss the goals of village organizing in village forestry; and
3. elaborate the roles of a village organizer.

Methods

Lecture-discussion and group dynamic exercise: “vision setting”

Materials

Large brown sheets of paper, pencils, markers, crayons, and results of the pair-wise ranking of problems in the village

Time

Two hours

Process

1. Form the participants into groups (e.g. by village). Ask each group to draw on a large sheet of paper, using crayons, the present situation in their village.

2. Ask each group to discuss and relate their respective pair-wise ranking of village problems with their first drawing using the following guide questions:
   a. What are the present problems of the village?
   b. What are the activities that the villagers can do now using their own resources to solve the identified problems?
   c. How will the villagers undertake these activities?
   d. Do the villagers need assistance from other people or institutions to solve their problems or attain their goals? If yes, who are these people? What are these institutions?
   e. What forms of assistance do the villagers need from these people or institutions?
   f. How will the villagers seek the needed assistance from these people or institutions?

3. After the first drawing is finished, ask each group to draw on another large paper, using crayons, their desired situation for their village 5 years from now.

4. After the second drawing is finished, ask each group to discuss how the desired situation of their village can be achieved together.

5. Ask each group to make a presentation of their group work

6. Summarize the group presentations and relate the results of the vision setting exercise to the rationale and goals of village organizing. Complement it with a brief lecture using the learning notes.
Learning notes

What is village organizing?

Village organizing is the process of enhancing villagers’ capabilities to achieve their common aspirations and goals by working together based on a common understanding of their existing situation.

What is the rationale and importance of village organizing?

- It ensures the participation of villagers in all stages of planning, implementation, and management of development projects to tackle priority needs identified by villagers themselves.
- It makes it possible for villagers to work collectively thereby accomplishing activities which would not be possible if done individually.
- It encourages local responsibility.
- It strengthens the capacity and builds up the confidence and self-reliance amongst villagers. Villagers learn from each other and the process promotes growth of individual skills.
- It promotes a sense of solidarity and unity amongst villagers in working towards a common goal and achieving practical results.
- It forms a venue by which villagers can be heard and listened to more effectively.

What are the goals of village organizing for sustainable forest management?

- To improve the socio-economic condition of villagers through fair sharing of costs and benefits from sustainable management of forests.
- To develop effective partnership between villagers and the state (forestry staff) in the sustainable management of forests and improvement of socio-economic condition of villages.
- To develop and strengthen the capacity of villagers in forest management and livelihood development on a sustainable and self-reliant basis.

Who will undertake village organizing?

The traditional practice in community development work is for the village organizer (e.g. forestry staff) to prescribe how the villagers should be organized, to identify what the roles and responsibilities of the officers and members are, to clarify what the organization should do, etc. In village forestry, the village organizer will primarily assist the villagers in organizing themselves to accomplish certain tasks or activities and enhance the analytical skills of the villagers so that they can identify, evaluate, and decide on the best alternatives or options to solve specific problem(s).

It should be noted that most villages are already organized in one form or another, i.e. village committees and tribal structures. The village organizer should undertake an analysis of these organizations together with the key leaders of the village to find out if these are already responsive to the needs of the villagers and to the demands of village forestry work. The decision to form a new organization for village forestry should come from the villagers themselves and not from the village organizer.
Lesson 1.4.1.2
Village organizing process

Objective

At the end of the lesson, the participants should be able to explain the village organizing process in village forestry.

Methods

Lecture-discussion

Materials

Handout on village organizing process in village forestry

Time

Two hours

Process

1. Discuss with the participants their own understanding of the village organizing process in village forestry.

2. Summarize the important points of the discussion and fill the gap in participants’ understanding of village organizing in village forestry by giving a brief lecture using the learning notes.

Learning notes

What are the processes involved in village organizing in village forestry? (see handout)

- **Entry into the village** – involves the entry of a village organizer (e.g. forestry staff) to assist and facilitate the villagers to organize themselves to undertake village forestry activities.

- **Building rapport and integration with villagers** – involves the building up of a good working relationship between the village organizer and the villagers. The acceptance and credibility of the village organizer is gradually established amongst villages.

- **Initial extension and participatory rural appraisal (PRA)** – involves the discussions with villagers regarding village forestry and the conduct of PRA to learn together with the villagers basic information (i.e. bio-physical, socio-economic, and institutional) about the village.

- **Village forestry core group (VFCG) formation, strengthening, and operations** – involves the realization by the villagers of the need to organize themselves. This is initially done through the formation of an informal and temporary village forestry core group (5-10 villagers) duly elected by the villagers based on their own criteria. The VFCG works closely with the forestry staff. The VFCG serves as the link
between the village administration /villagers and the forestry staff. The roles and responsibilities of the VFCG including basic operating rules and a simple action plan are prepared and approved by the village administration. Based on the training a training needs assessment, trainings are designed and provided to the VFCG to strengthen its capabilities to effectively carry out its new roles and responsibilities in village forestry. The VFCG serves as the foundation for the eventual formation of a more suitable and formal organization for village forestry.

- **Organization building and development** – involves the formation, operation, and strengthening of a suitable and formal organization for village forestry (village forestry committee, village forestry association, etc) based on the organizational options assessed and selected by villagers themselves. At this stage, the collaboration among the organizations for village forestry evolves. Organization building and development is undertaken side by side with the planning, implementation, monitoring, and evaluation of village forestry activities. Organization building and development is done through continuing PRA, extension, training and others.

- **Exit from the village** – involves the exit of the village organizer (e.g. forestry staff) from the village. This is done after organized villagers are able to establish and effectively plan, implement, and manage village forestry activities by themselves on a self-reliant and sustainable basis with minimal assistance and supervision required from external agents (e.g. forestry staff).
Entry into the village

Building rapport

Initial extension and PRA

Informal core group formation, strengthening, and operation

Organization building and development (formal organization formation, operations, and strengthening through PRA, extension, and training and inter-

Forest management planning – Implementation – Monitoring – Evaluation (Participatory)

Exit from the village
Module 1.4.2
Overview of a village organization

Introduction

The module is aimed at providing the participants with a better understanding of a village organization and how it evolves including the basic elements of a village organization.

Contents

The module consists of two lessons:

Lesson 1.4.2.1 Evolution of a village organization- In this lesson, the participants acquire a better understanding of what a village organization is and how it evolves.

Lesson 1.4.2.2 Elements of a village organization- In this lesson, the participants learn the basic elements of a village organization such as name, goals and objectives, membership policies, structure, rules and regulations, meetings, plan of activities, records keeping and financial management.
Lesson 1.4.2.1
Evolution of a village organization

Objective

At the end of the lesson, the participants should be able to describe an organization and how a village organization evolves.

Methods

Lecture-discussion and group work

Time

One hour

Process

1. Form the participants into groups (e.g. by villages). Explain to the participants the following situation:

   “Weeks of continuous rainfall resulted in the serious flooding of a wide area of the district. This has caused massive destruction to life and property. When the floods receded only a boatload of fifteen people was saved. You are the fifteen people saved. You are not relatives. Your task now is to build a new village.” How are you going to do it?

2. Ask each group to make a presentation of the output of their discussion.

3. Summarize the important points of the group presentations and relate the exercise to the basic elements of an organization and how an organization evolves in response to certain conditions. Complement it with a brief lecture using the learning notes.

Learning notes

What is a village organization?

A village organization is a group of individuals living and interacting in a village, bonded by common goals and aspirations, sharing the same values, and governed by an agreed upon set of rules and regulations.

How does a village organization evolve?

Village organizations usually begin when villagers have to address and act on a specific problem or issue such as the lack of safe drinking water, deforestation, etc. A village organizer usually encourages the villagers to start with issues or problems that they can easily solve. This is done rather than tackling difficult issues at once where the probability of success is not guaranteed or where the benefits are not immediately felt. The reason behind this is that the new organization needs to gradually develop teamwork among its members and to develop its confidence in its ability to solve problems. This also gives them the opportunity to gradually develop their internal structure as well as organizational policies, systems, and procedures.
As the organization deals with an increasing number of activities at the same time, relationships become more complex and the probability of conflict within the organization cannot be avoided. This is a normal occurrence because as the organization grows, norms evolve which specify acceptable behavior within the organization. At the same time, a leveling-off of values and beliefs among the members also occurs as they work together in implementing the different activities.

In time, the organization will expand its membership if it is perceived to be effective in achieving its goals and objectives. However, some members, even leaders, may choose to leave the organization some time. This may bring about a crisis situation and may lead to a break up of the organization. Organizations that have survived this type of crisis did so because of the strong bonding among majority of the members in terms of needs, values, goals, and aspirations. It should be noted that a common historical experience among the members could be a very strong reinforcing element in the organization.
Lesson 1.4.2.2  
Elements of a village organization

Objective

At the end of the lesson, the participants should be able to discuss the elements of a village organization.

Methods

Lecture discussion

Time

Two hours

Process

1. Based on the results of the discussion in the preceding lesson, ask the participants to discuss their own understanding of the elements of a village organization that are necessary in order to function effectively.

2. Summarize the results of the discussion and give a brief lecture to fill the gap in participants’ understanding of the elements of an organization using the learning notes.

Learning notes

What are the elements of a village organization?

a. **Name**- This represents the identity of the organization. This is carefully chosen and agreed upon by consensus of the membership.

b. **Goals and Objectives**- This contains the common goals and aspirations of the members of the organization. The goal can be general enough as for example “... to work for the general well-being of the members.” However, the objectives will reflect the more specific means by which the goals are to be achieved. For example: “...to assist its members in improving its agricultural productivity”, or “...to ensure that all members are provided with adequate health services”. It is important that the members find time to think about, discuss and agree on their particular goals and objectives because these will form the framework for all activities that will be undertaken by the organization.

c. **Membership Policies**- This specifies the qualifications for membership, the application process, and the rights and responsibilities of the members. These should be consistent with the organization’s goals and objectives.

d. **Structure**- This reflects the authority, roles and responsibilities of officers and members of the organization. This also reflects the avenues for participation and the necessary checks and balance in the organization. Initially, when the villagers are simply trying to address one problem, the structure may be simple (i.e. core group). As the activities to be implemented increase, it has the option to expand or reinforce
the core group or evolve into a more appropriate organizational structure (i.e. committee, association, etc). It is important that the structure should reflect a task-oriented organization. Think of the needs first and the tasks to be undertaken, then think of the structure. Do not think of the structure first and then think of how the organization, with its structure, can respond to the needs of the members.

e. **Rules and regulations** - This specifies the basic rules and regulations that govern the operations of the organization. These rules and regulations are approved by the membership.

f. **Meetings** - These provide the forum for discussion of the progress of the organization through a formal sharing of information, and contribute to the general feeling of shared responsibility for the organization. These are formal occasions for decision-making based on a set of procedures defined by the organization.

g. **Plan of activities** - An organization is in constant action. Action is the lifeblood of an organization. When the organization is still in the formation stage, it usually has only an action plan for one or two activities. As it grows, it formulates a plan of activities for a certain period of time such as three months or six months and eventually an annual plan. The preparation of the draft plan is usually done by a small group (e.g. core group) chosen by the villagers. The core group usually conducts discussions and consultations with key village leaders in the process of formulating the draft plan. The draft plan is then presented to the villagers for discussion, revision (if necessary), and for approval.

h. **Financial management system** - This specifies who are authorized to receive, keep, and disburse funds or the money of the organization; how these are to be received, kept and disbursed; how, where and when the money is going to be used (budget); and frequency and manner of reporting to the officers and to the membership. The officers should always remember that the authority to receive, keep and disburse funds essentially comes from the membership, as the money is owned by the organization. Transparency in financial transactions and the organization’s financial status is a must if the organization is to survive. Financial records should always be open for review by any member at any point in time.

i. **Records management system** - This consists of a set of procedures for recording, compiling, and retrieving all documentation pertaining to the organization and its activities. Some of these documents are records of meetings, copies of organizational rules and regulations, incoming and outgoing communications, copies of lists of officers and members, contracts, progress monitoring reports, evaluation reports, copies of plans of activities, registration papers, project proposals, negatives and prints of pictures, maps, training designs and reports, and many other such records. The advantages of having an excellent records management system are as follows: (1) it contributes to general efficiency of the organization’s operations; (2) the records will reflect the growth and accomplishments of the organization through time, and the officers and members can take pride in having this knowledge; and (3) it is vital for the continuity of operations, particularly when there are changes in the leadership of the organization.
Module 1.4.3
Role of participation and groups in village organizing

Introduction

This module is aimed at providing the participants with a better understanding of the role of participation and groups in village organizing.

Contents

The module consists of two lessons:

Lesson 1.4.3.1 *Importance of participation in village organizing* - In this lesson, the participants learn the importance of participation in village organizing, the different forms of participation, and the factors that affect villagers’ participation.

Lesson 1.4.3.2 *Importance of groups in village organizing* - The participants learn the importance and advantages of working with groups in village organizing.
Lesson 1.4.3.1
Importance of participation in village organizing

Objectives

At the end of the lesson, the participants should be able to:

1. discuss the importance of participation in village organizing;
2. explain the different forms of participation; and
3. enumerate the factors that may affect villagers’ participation.

Methods

Lecture-discussion

Materials

Large brown sheets of paper, marker and masking tape

Time

Two hours

Process

1. Ask the participants to discuss their own understanding of participation using the following guide questions:
   
   a. What is participation?
   b. Why is participation important in village organizing?
   c. What are the kinds of participation?
   d. What are the factors that affect villagers’ participation?

2. Write on a large brown sheet of paper and summarize the outputs of the discussion. Fill the gap in participants’ understanding by giving a brief lecture using the learning notes.

Learning notes

What is participation?

Participation is the active involvement of a significant number of persons in situations or actions that enhance their well-being, e.g. their income, security, and/or self-confidence. Participation is not:

- getting villagers to agree and implement projects and activities that have already been designed for them
- mere contribution of labor by villagers and receiving wages
- enthusiastic support of a few village leaders only
Why is participation in village organizing important?

a. To develop a sense of responsibility for one’s own as well as others’ welfare.

b. To develop self-reliance necessary among the villagers for sustainable forest management and village development. Without participation there cannot be meaningful village organizing for development.

c. To contribute local knowledge in decision-making which may be complemented by outsiders’ knowledge

What are the forms of participation?

1. *Participation in decision-making*

   This involves the generation of ideas, formulation and assessment of options and making of choices, and the formulation of plans for implementing the selected options.

2. *Participation in implementation*

   People participate in implementation through resource contributions (i.e. provision of labor, cash, material goods and information), costs sharing, and taking part in administration and coordination efforts.

3. *Participation in benefits*

   Benefits can either be material, social, or personal. Material benefits refer to goods such as increase in income, welfare support, etc. Social benefits are goods and services such as schools, health services, clinics, water systems, improved hosing, better roads, etc. Personal benefits may take the form of improved knowledge, skills, self-confidence, etc.

4. *Participation in evaluation*

   This involves the determination of the effects of project activities on the welfare of the villagers. Indicators are determined at the early stages of the project to serve as a guide in the implementation process. Both internal and external evaluations are necessary to determine success in terms of achieving the desired results or goals.

What are the factors that may affect villagers’ participation?

1. **Program characteristics**

   - *Technology complexity*- villagers participate more if the technology is simple.
   - *Program flexibility*- villagers participate more if the program design is flexible.
   - *Resource requirements*- villagers participate more if the resources required from villagers are minimal and readily available or accessible to them.
   - *Project staff availability and credibility*- villagers participate more if project staff are more credible and readily available in the village.
2. Benefit characteristics

- **Immediate benefits** - villagers participate more if the benefits can be derived immediately or in a short period of time.
- **Tangible benefits** - villagers participate more if the benefits are real and tangible.
- **Probable benefits** - villagers participate more if the probability of deriving the benefits is high.

3. Socio-political and environmental characteristics

- **Socio-cultural factors** - villagers participate more if they have past experience of participation, if there is cohesiveness, and if the activity blends well with their traditions and culture.
- **Economic factors** - villagers participate more if the activity contributes to the upliftment of their economic condition.
- **Environmental factors** - villagers participate more if the activity contributes to the improvement of their immediate environment.
- **Political factors** - villagers participate more if there is strong political support at all levels of government.
Lesson 1.4.3.2
Importance of groups in village organizing

Objectives
At the end of the lesson, the participants should be able to explain the importance and advantages of working with groups in village organizing.

Methods
Group dynamic exercise: “object identification” and lecture-discussion

Materials
20 objects available in the training site; 2 container bags or boxes; and large brown sheets of paper and markers

Time
One hour

Process
1. Form the participants into groups (e.g. by village). Get one representative from each of the groups and inform these representatives that they will work individually. The remaining members of the group should work as a group.
2. Let the individual group member and the other members of the group stand around a table. Inform them that they will play a memory game and they are not allowed to write anything. The facilitators should make sure that there are no pens or pencils nearby.
3. Empty out the 20 objects (one object at a time) and show each to the participants for about 5 seconds. Then place the shown object into another container bag or box. These objects are small items such as a matchbox, a pen, a lighter, a watch, a comb, a button, a seed, a stone, and others.
4. After all the 20 objects have been shown to the participants, let them work apart and separately so that they cannot hear each other. Ask individuals and groups to write on the paper all the things that they can remember. Give time limit (2-3 minutes). Facilitators should make sure that there is no cheating, listening or talking between individuals and groups.
5. When participants are finished, they should post their lists (by individuals and by groups).
6. Process and analyze together with the participants the completed exercise and draw the lessons learned using the following guide questions and instructions:
a. Who remembered the most number of objects? Individuals or groups? Encourage participants to think why the group list of objects was longer.
b. What does this tell about strength of groups?
c. How does this exercise demonstrate the advantages of working in a group? Ask participants to think about village forestry activities that they can do better as a group.
Module 1.4.4
Learning basic village organizing skills

Introduction

This module is aimed at providing the participants with knowledge and skills in applying the basic village organizing skills of consensus building, ground working, and handling meetings.

Contents

The module consists of three lessons:

**Lesson 1.4.4.1 Applying village organizing skills in consensus building** - In this lesson, the participants acquire the knowledge and techniques in applying the basic village organizing skills of consensus building.

**Lesson 1.4.4.2 Applying village organizing skills in ground working** - The participants learn the knowledge and techniques in applying the basic village organizing skills of ground working.

**Lesson 1.4.4.3 Applying village organizing skills in handling meetings** - The participants are provided with the knowledge and techniques in applying the basic village organizing skills of handling meetings and in preparing minutes of a meeting.
Lesson 1.4.4.1
Applying village organizing skills in consensus building

Objective

At the end of the lesson, the participants should be able to demonstrate the use of village organizing skills in consensus building.

Methods

Structured learning exercises (SLE): “Boat is sinking” and group discussion

Materials

Large brown sheets of paper and markers

Time

Two hours

Process

1. Explain a hypothetical situation to the participants, as follows:

A small ferry boat from Mukdahan to Savannakhet is carrying the following passengers:

- monk
- captain of the boat
- soldier
- village chief
- blind young child
- disabled businesswoman
- teacher reporting for duty to a remote village
- pregnant woman
- doctor
- forester

The boat is suddenly struck by an unforeseen serious problem and starts to sink. Unfortunately, there are only three (3) life jackets on board. Who should be given these life jackets?

2. Ask each participant to decide (individually) which 3 passengers should be given life jackets and write the outcome of his/her decision and reason(s) on a piece of paper.

3. Form the participants into groups (e.g. by village). Each group is asked to discuss and decide (as a small group) which 3 passengers should be given life jackets. Each group is asked to write the outcome of the their decision and reason(s) on a large sheet of paper. Each group will present and defend its decision in a plenary session.
4. Ask the participants to discuss and decide (as one large group) which 3 passengers should be given life jackets.

5. Compare the large group’s decision with that of the small groups and that of individual participants and facilitate the differences being discussed.

6. Process the relationship of the SLE experiences to actual situations in villages using the following guide questions:

   a. How was the process of consensus building in the case of individual participants, small groups and large group, easy or difficult?
   b. Why is it more difficult as the size of a group increases?
   c. What are the requirements for effective consensus building? i.e. two-way communication, adequate time for discussion, clear goals and objectives, prioritization, leadership, etc.
   d. How does the SLE experience relate to actual situations in a village?
   e. Why is effective consensus building important? i.e. basis for collective action; promotes participation, cooperation and solidarity; avoids/minimizes future conflicts; etc.
Lesson 1.4.4.2
Applying village organizing skills in ground working

Objective

At the end of the lesson, the participants should be able to demonstrate the use of village organizing skills in ground working.

Methods

Lecture – discussion and role play

Time

Two hours

Process

1. Ask for four (4) volunteers from among the participants. The volunteers are asked to form two pairs.

2. Give the volunteers their role guides.

Role guides for ground working exercise

First Pair

Participant A: You are a key village leader. You are visited by the village organizer. You do not know the purpose of his visit. It appears that he is simply on a friendly visit to your home. He asked about your general well-being, your health, and your family. The discussion then focused on the water problem and the organizer shared with you some meaningful ideas. In the end, you decided to raise the issue during the next village meeting and will encourage the villagers to discuss possible solutions and actions to solve the problem.

Participant B: You are the village organizer. You decided to do some groundwork on the issue of lack of safe drinking water. You chose to visit one of the key leaders in the village. You greeted the leader and you were asked to enter his house. You then asked about how he is, his health, his family, and led the discussion to water for drinking. You led the discussion in such a way that the key leader thought of bringing up the issue in the next village meeting. You then shared various experiences of villagers in other areas in solving their water problem. This is expected to challenge the creativity of the key village leader.

Second Pair

Participant A: You are a key village leader. The village organizer visits you. After the customary greetings, the organizer proceeded to discuss with you the problem of safe drinking water. The organizer told you to immediately call a meeting and draft a letter addressed to the Governor to donate a water pump for the village. The organizer also told you to organize a village water committee as soon as possible to start collecting pledges for counterpart labor for the construction of the water system.
When the organizer left, you started wondering where to install the pump. After a while, you did not think much about it anymore because then the village organizer will know where to install the pump.

**Participant B:** You are the village organizer. You went to the house of a key village leader to discuss the issue of lack of safe drinking water. After the customary greetings, you told the key leader to immediately call a meeting and draft a letter addressed to the Governor to donate a water pump for the village. You also told the key village leader to organize a village water committee as soon as possible to start collecting pledges for counterpart labor for the construction of the water system. You then asked permission to leave and go home.

3. Process the role play experiences using the following guide questions:
   a. Which situation do participants prefer, the first or the second pair? Why?
   b. What are the consequences of each situation to the villagers, in terms of problem-solving and planning, action, creativity, resourcefulness, etc.?
   c. Why is ground-working important, in terms of problem analysis, decision making, collective action, etc.?

4. Summarize the important points of the discussion and fill the gaps in participants’ understanding of ground working by giving a brief lecture using the learning notes.
Learning notes

What is ground working?

Ground working involves one-on-one or small group discussions on a planned activity such as a village meeting. The village organizer (i.e. forestry staff) visits key leaders and holds discussions with them individually regarding an issue that has to be discussed among and resolved by the villagers. These one-on-one discussions help the key leaders in analyzing and reflecting on the issue or problem and alternative solutions are already identified and analyzed even prior to the village meeting.

The advantage of ground working is that the problem can be analyzed with greater depth during the meeting and a wider range of alternative solutions can be discussed. This is because the village organizer has explained many ideas to the key leaders during the one-on-one discussions. The remaining challenge during the meeting is arriving at a consensus regarding the analysis of the problem and the preferred solution.

Ground working is also done even among ordinary villagers to motivate them to participate in the activities of the organization (i.e. village forestry committee, village forestry association, etc.). Through the discussions with the villagers, information and feedback is likewise gained which could further enhance the problem-solving and planning processes.

Ground working is sometimes used as a means for preventing conflict situations from happening thereby directing villagers’ efforts to more collaborative activities.

The danger with ground working is that the village organizer (i.e. forestry staff) might manipulate the outcome of meetings by convincing or influencing the key leaders regarding his/her own analysis of the problem and how this should be solved. This may hinder the enhancement of the villagers’ analytical skills. A possible remedial measure is for village organizers to conduct regular reflection sessions among themselves to review the ground working technique and assess its consistency with the principles of village organizing.
Lesson 1.4.4.3
Applying village organizing skills in handling meetings

Objective

At the end of the lesson, the participants should be able to demonstrate the use of village organizing skills in handling meetings and in recording the minutes of meetings.

Methods

Lecture-discussion and role play

Materials

Village forestry flipchart and handout on sample format of minutes of a VFA meeting

Time

Two hours

Process

1. Ask a group of participants to conduct a meeting to explain village forestry. The purpose of the meeting is to confirm villagers’ willingness to participate in village forestry. The other participants will act as observers. Process the role play experiences using the following guide questions:

   a. How was the meeting conducted? Was it orderly?
   b. Did everyone participate in the discussions?
   c. Was the purpose of the meeting achieved? If not, why not?
   d. Were the discussions during the meeting recorded?
   e. Why are meetings important?

2. Summarize the important points of the discussion and fill the gaps in participants’ understanding by giving a brief lecture using the learning notes.

Learning notes

Why are meetings important?

Meetings are means for disseminating information, for discussing problems and issues, for making collective decisions and arrangements on how to act together to solve problems, for reporting development and status of activities in the village, for socializing and interaction, and for other purposes.

What are the guidelines in handling meetings?

1. **Before the meeting (planning a meeting)**

   • Clear purpose of the meeting. What is the purpose of the meeting? What is the meeting hoped to achieve? Why is the meeting being conducted?
• Prepare together with key villagers the agenda or topics to be discussed (based on the outcomes of previous meetings and concerns gathered during ground-working). What are the topics/agenda to be discussed? Who will determine the topics/agenda?
• Make a list of villagers expected to attend. Who will attend?
• Assign a villager to preside over the meeting. Who will preside?
• Set the meeting at a date, time, and place that is convenient to all who are expected to attend. Where (place) and when (day/time)?
• Check the minutes of previous meetings and other requirements? What are things needed in the meeting, and who will take charge?
• Inform all participants of the meeting. Who will inform and how?

2. During the meeting (Conducting a meeting)

Notes for the presiding officer:

• The presiding officer should make sure that everyone is given a chance to speak or express his/her opinion.
• Members should speak one at a time and only when recognized by the presiding officer.
• The presiding officer should make sure that all questions have been answered and discussion has been completed on one issue or topic before moving to the next topic in the agenda.
• Introduce new faces (if any) at the meeting.
• Start the meeting on time as scheduled.
• Assign a person to record the discussions in the meeting (Who will record and report?).
• Take note of the names of people who are attending the meeting (Who are present or absent? Is there a quorum?).
• Discuss the proposed agenda for the meeting; ask for any additional topics and seek adoption of agenda.
• Decide as a group when (time) to finish the meeting.
• Review and approve topics discussed and agreements made in previous meetings.
• Discuss unfinished matters from previous meeting(s).
• Discuss topics/agenda of the meeting.
• Summarize the major topics/agreements discussed.
• Agree on the schedule for the next meeting (When is the next meeting?).
• End the meeting.

3. After the meeting (Evaluating a meeting)

• Review the process and outcomes with key leaders based on the purpose of the meeting. Was the purpose of the meeting achieved? Was the meeting orderly in the way it was conducted? Did everyone participate in the discussion? Did the meeting start on time?
• Discuss and agree on how to improve future meetings.
• Discuss follow-up activities. What follow-up actions are needed? Who are the persons to be responsible?
Why is it important to keep minutes of a meeting?

- Serves as record of events, topics discussed, and decisions/agreements made
- Provides reference for future officers and members of the core group/village forestry organization
- Avoids misunderstandings in the future
- Reflects growth of the group.

What are the guidelines in preparing minutes of a meeting?

- State the nature of the meeting: tie core group meeting, village assembly meeting, etc.
- Include only highlights of the meeting, i.e. major decisions/agreements, tasks assignments, progress of work, problems and recommendations, etc.
- Prepare minutes prior to the next meeting
- Read out and get approval by the group
What are the contents of minutes of a meeting? (see handout for sample format of minutes of a meeting)

- Starting time of meeting and presiding officer
- Attendance (names of people who attended)
- Approval of agenda
- Summary of topics discussed
- Schedule of next meeting
- Ending time of meeting
- Name of person who prepared the minutes
- Name of person who certified the correctness of the minutes
Handout no. 1.4.4.31 - Sample format for the minutes of a VFA meeting

Lao People’s Democratic Republic
Peace Independence Democracy Prosperity

Name of the Village Forestry Association

1. Kind of VFA meeting: ____________________________________________________
   (e.g. VFA general assembly or policy committee meeting, regular or special meeting)
2. Date and place of meeting: ______________________________________________
3. No. of attending VFA members/officers: ___________________________________
4. List of the approved agenda or topic to be discussed:
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
5. Summary of topics, decisions, agreements, and recommendations:
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
6. Schedule of next VFA meeting: ___________________________________________

Prepared by: ____________________________________________________________
              VFA Secretary
              (Date)

Certified Correct by: _____________________________________________________
                      VFA Chairperson/Presiding Officer
                      (Date)

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Course 1.5
Forming and operating a village forestry core group and assessing the organizational options for village forestry at the FMU level

Introduction

The course is aimed at strengthening the capabilities of the:

(a) PAFO trainers in training other forestry staff and villagers in forming and operating a village forestry core group and in assessing the organizational options for village forestry at the FMU level;
(b) DAFO extension workers in facilitating and providing assistance to villagers in forming and operating a village forestry core group and in assessing the organizational options for village forestry at the FMU level;
(c) Villagers in forming and operating the village forestry core group and in assessing the organizational options for village forestry at the FMU level.

The lessons are designed to provide the participants with a better understanding of the importance of village forestry core group and how to form and operate it. The participants are introduced to the process and stages of organization building and development in village forestry and the organizational options for village forestry at the FMU level.

Contents

The course consists of four modules:

Module 1.5.1 Village forestry core group- In this module, the participants acquire an better understanding of the (a) rationale and importance of forming a village forestry core group(VFCG) and (b) the roles and responsibilities of the VFCG and its relationship with the village administration.

Module 1.5.2 Forming and operating a village forestry core group - The participants learn the step-by-step procedure in forming and operating a village forestry core group. They also learn the criteria commonly used by villagers in selecting the members of the village forestry core group.

Module 1.5.3 Organization building and development in village forestry- The participants are introduced to the process and importance of organization building and development. The participants learn the different stages of village organization building and development and the factors to consider in selecting and forming a suitable organization for village forestry.

Module 1.5.4 Organizational options for village forestry at the FMU level- The participants acquire a better understanding of the present village structures and the rights and duties of the village administration in forest management. The participants learn the requirements for forming a suitable organization for village forestry. They acquire knowledge and skills in assessing and selecting a suitable organizational option for village forestry at the FMU level.
Module 1.5.1
Village forestry core group

Introduction

The module is aimed at providing the participants with a better understanding of the rationale and importance of a village forestry core group (VFCG) including its roles and responsibilities.

Contents

The module consists of two lessons:

Lesson 1.5.1.1 Understanding the rationale and importance of a VFCG- In this lesson, the participants learn what a village forestry core group is and its rationale and importance.

Lesson 1.5.1.2 Understanding the roles and responsibilities of a VFCG- The participants acquire a better understanding of the roles and responsibilities of the village forestry core group and its relationship with the village administration.
Lesson 1.5.1.1
Understanding the rationale and importance of a village forestry core group

Objective

At the end of the lesson, the participants should be able to explain the rationale and importance of a village forestry core group (VFCG).

Methods

Lecture-discussion and group work

Time

45 minutes

Process

1. Based on their initial understanding of village forestry, ask the participants to discuss the rationale and importance of a village forestry core group.
2. Summarize the important points of the discussion and fill the gaps in participants’ understanding by giving a brief lecture using the learning notes.

Learning notes

What is a village forestry core group?
- A village forestry core group (VFCG) is a small and informal grouping of villagers selected by the villagers or appointed by the village administration. The VFCG is comprised of a group of villagers (5-10 persons) who are selected by the villagers or appointed by the village administration based on criteria agreed upon by the villagers. It is small in composition and simple in operations. The VFCG represents the villagers and works closely with the state forestry staff in planning, implementing, and managing initial village forestry activities in the village.

What is the rationale and importance of a village forestry core group?
- Village forestry requires a partnership between state forestry staff and organized villagers in planning, implementing, and managing village forestry activities in the village. The villagers have no practical experience on how to organize themselves for doing such activities.
- The village administration is responsible for all development activities in the village. The VFCG is responsible for village forestry activities and is accountable to the village administration. Checks and balance is established and accountability can be easily determined.
- The VFCG is an initial organizational arrangement and is part of a long-term learning process. The organization for village forestry evolves as the villagers learn to know more about village forestry operations and their requirements.
- The VFCG is an improvement of the existing village structure where village forest related responsibilities are handled by only 2-3 village forest volunteers. The VFCG has clear roles and responsibilities including simple operating rules approved by the village administration.
Lesson 1.5.1.2
Understanding the roles and responsibilities of the village forestry core group

Objectives

At the end of the lesson the participants should be able to:

1. Explain the roles and responsibilities of the village forestry core group
2. Discuss the relationship between the VFCG and village administration

Time

One hour

Process

1. Based on their initial understanding of village forestry, ask the participants to discuss the roles and responsibilities of the village forestry core group and its relationship to the village administration.

2. Summarize the important points of the discussion and complement this with a brief lecture using the learning notes.

Learning notes

What are the roles and responsibilities of the village forestry core group?

- Under the overall supervision of the village administration, the VFCG works with the state forestry staff in planning, implementing, and managing initial village forestry activities in the village.
- The VFCG organizes and lead the conduct of PRA work in the village jointly with state forestry staff.
- It prepares a simple action plan on village forestry to be approved by the village administration.
- It reports progress on the implementation of the VFCG action plan to the village administration and villagers.
- It organizes the formation of village forestry working teams (e.g. village land use mapping teams, village forest inventory teams) and mobilizes villagers for collective work in village forestry.
- It administers initial funds (if any) to support the implementation of the village forestry action plan and is accountable to the village administration and villagers.
- It maintains records relating to village forestry, e.g. minutes of meetings, reports, maps, letters, plans, and other documentation.
- It organizes meetings and disseminates information on village forestry.
- It undertakes preparatory work for the establishment of appropriate organizational arrangement (e.g. VFC, VFA) for village forestry and proposes organizational structure, rules and regulations, operating systems and procedures, etc., for approval by the village administration and villagers themselves.
- It hands over all village forestry records, funds and responsibilities to the elected officers of the organization for village forestry.
What is the relationship between the VFCG and the village administration?

The village administration is responsible for all development activities in the village (including forestry) and is accountable to the district authorities. The VFCG is selected by the villagers and/or appointed by the village administration. Thus, it is accountable to the village administration on village forestry activities. The village administration oversees and supervises the operations of the VFCG. The VFCG operating rules and action plans are approved by the village administration.
Module 1.5.2
Forming and operating a village forestry core group

Introduction

The module is aimed at providing the participants with the knowledge and skills in forming and operating a village forestry core group.

Contents

The module consists of two lessons:

**Lesson 1.5.2.1 Forming a village forestry core group** - In this lesson, the participants learn the procedures for forming a village forestry core group. The participants acquire a better understanding of the criteria commonly used by villagers in selecting the members of the village forestry core group.

**Lesson 1.5.2.2 Operating a village forestry core group** - The participants learn the procedures for operating a village forestry core group. The participants are provided with knowledge and skills in (a) formulating simple VFCG rules and operating procedures and (b) preparing a simple VFCG action plan (6-12 months).
Lesson 1.5.2.1
Forming a village forestry core group

Objectives

At the end of the lesson, the participants should be able to:

1. Discuss the procedures in forming a village forestry core group
2. Enumerate the criteria commonly used by villagers in selecting the VFCG members

Methods

Lecture-discussion

Time

One hour

Process

1. Based on their initial understanding of village forestry and the responsibilities of the VFCG, ask the participants to discuss the procedures in forming a village forestry core group using the following guide questions:
   a. How many members will compose the village forestry core group?
   b. What are the criteria for selecting the VFCG members?
   c. Who will select or appoint the members of the VFCG?

2. Summarize the important points of the discussion and fill the gaps in participants’ understanding by giving a brief lecture using the learning notes.

Learning notes

What are the procedures in forming a village forestry core group?

Step 1 After the villagers have confirmed their willingness to participate in village forestry, the idea of forming a village forestry core group is introduced. Discuss the importance of forming the VFCG and its roles and responsibilities including its relationship with the village administration and villagers.

Step 2 Based on the VFCG roles and responsibilities, ask the villagers to develop a set of criteria for selecting the members of VFCG.

Step 3 Ask the villagers to select VFCG members in accordance with the criteria they have developed (preferably 5-10 members depending on the area coverage, population size, and socio-cultural diversity of the village).

Step 4 The VFCG will elect among themselves a chairperson, vice chairperson, secretary and a treasurer (as needed).

Step 5 The village administration confirms the VFCG officers and members and informs the district forestry office of their names.
What are the criteria commonly used by villagers in selecting the VFCG members?

- Hardworking and energetic
- Respected by the villagers
- Not too rich... not too poor
- Not too young...not too old
- Can read and write
- Can communicate effectively with villagers
- Honest
- Healthy... not sickly
- Intelligent
- Not drunkards
- Have experience working in forest
Lesson 1.5.2.2  
Operating the village forestry core group

Objectives

At the end of the lesson, the participants should be able to:

1. Discuss the procedures for operating a village forestry core group  
2. Formulate simple VFCG rules and operating procedures  
3. Prepare a simple VFCG action plan (6-12 months)

Methods

Lecture-discussion

Materials

Handout on sample of a VFCG action plan

Time

Three hours

Process

1. Ask the participants to discuss their own understanding of the procedures for operating the village forestry core group.

2. Summarize the important points of the discussion and fill the gaps in participants’ understanding using the learning notes.

3. Based on their initial understanding of village forestry and the roles and responsibilities of the VFCG, ask the participants to discuss and reach consensus on simple VFCG rules and operating procedures using the following guide questions:

   a. What are the goals and objectives of the VFCG?  
   b. How will the VFCG be operated?  
   c. How will the VFCG members share work? Who will lead the VFCG? Who will keep VFCG records? Who will keep VFCG funds (if any)?  
   d. How often will the VFCG meet? VFCG only? VFCG with village administration? VFCG with village administration and villagers?  
   e. How long will the VFCG exist?  
   f. How will initial funds (if any) be managed by the VFCG? Who will be accountable for the funds? To whom will the VFCG be accountable to?  
   g. What actions will be taken on non-active VFCG members?  
   h. What decisions relating to village forestry can be made by the VFCG? By the village administration? By villagers?  
   i. What is the relationship of the VFCG with the village administration, other village groups, villagers and state forestry staff (e.g. decision making, coordination, control)?
4. Based on the consensus reached, ask the participants to write simple VFCG rules and operating procedures.

5. Based on their initial understanding of village forestry and the roles and responsibilities of the VFCG, ask the participants to discuss and reach consensus on a simple action plan that will guide the implementation of initial village forestry activities using the following guide questions:

   a. How will the action plan on village forestry be prepared, implemented, monitored, and evaluated by the VFCG?
   b. Who will approve the VFCG action plan?
   c. What are the contents of the action plan?
   d. What are the initial village forestry activities to be included in the action plan?
   e. What is the duration of the action plan? (6-12 months)

6. Based on the consensus reached, ask the participants to prepare a simple VFCG action plan.

7. Review the outputs and suggest improvements (as needed).

Learning notes

What are the procedures in operating a village forestry core group?

Step 1 Training of village forestry core group

   a. Conduct a training needs assessment for the village forestry core group.
   b. Design and conduct training courses for VFCG based on the results of the training needs assessment.

Step 2 Formulating simple VFCG rules and operating procedures

   The VFCG reviews its activities, roles, and responsibilities and formulates simple rules and operating procedures for approval by the village administration. Some examples of these rules are: (a) delegation of authority; (b) records keeping; (c) meetings; (d) reporting; and (e) organizing and mobilizing villagers for village forestry work.

Step 3 Preparing and implementing a simple VFCG action plan

   a. Together with the state forestry staff, the VFCG reviews the initial activities in village forestry and prepares a simple action plan covering the period of 6-12 months. The action plan includes the VFCG activities, schedule, and persons responsible. (See handout for a sample of VFCG action plan)
   b. The VFCG presents and discusses the action plan with the village administration and villagers for approval.
   c. The VFCG implements the approved action plan.
Handout no. 1.5.2.2.1 - Sample format of a VFCG action plan

Name of village: ______________________________________

<table>
<thead>
<tr>
<th>Activities</th>
<th>Target Goal</th>
<th>Month/Year</th>
<th>Persons Responsible</th>
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<tbody>
<tr>
<td></td>
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<td>1 2 3 4 5 6 7 8 9 10 11 12</td>
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Prepared by: ___________________________ Approved by: ___________________________

_________________________ ___________________________
VFCG Village Chief
Module 1.5.3
Organization building and development in village forestry

Introduction

The module is aimed at providing the participants with a better understanding of the process, importance, and stages of organization building and development. The participants learn the factors to consider in organization building and development for village forestry.

Contents

The module consists of two lessons:

**Lesson 1.5.3.1 Understanding village organization building and development**- In this lesson, the participants are introduced to the process, importance, and stages of village organization building and development.

**Lesson 1.5.3.2 Factors to consider in organization building and development for village forestry** - The participants learn the factors to consider in organization building and development for village forestry.
Lesson 1.5.3.1
Understanding village organization building and development

Objectives

At the end of the lesson, the participants should be able to:

1. Explain the process and importance of organization building and development
2. Discuss the different stages of village organization building and development

Methods

Lecture-discussion

Time

Two hours

Process

1. Discuss with the participants their own understanding of organization building and development using the following guide questions:
   a. What is organization building and development?
   b. Why is organization building and development important?
   c. What are the stages of organization building and development

2. Summarize the output of the discussion and fill the gaps in participants understanding by giving a brief lecture using the learning notes.

Learning notes

What is organization building?

Organization building involves, among others, the establishment of structures with goals and objectives, roles and responsibilities, rules and operating procedures, and a simple action plan.

What is organization development?

Organization development (OD) is a process that takes off from an organization that is already showing signs of maturity. OD guarantees the sustainability of the organization by installing and institutionalising tested rules and operating procedures that will either consolidate or expand the organization’s operations. The organization links with similar organizations in other villages (i.e. inter-village forestry committee, group of VFCs or VFAs, etc).
What are the stages of village organization building and development?

**Stage I - Group formation**

- This is the initial stage of organization building and development, when villagers realize the need to organize and work together to address issues or problems that could not be handled individually. Addressing these issues or problems requires setting up a structure designed to coordinate the activities. Initially, few capable villagers are identified and trained to improve their capability in building up a suitable organization (i.e. core groups).
- The core group members start to set up ideas on what the group wants to achieve and these are expressed in its goals and objectives, structure, simple rules and operating procedures, action plan, etc. Because of the core group’s enthusiasm, there will be the tendency to address many problems at once and members will not be able to easily focus on a specific issue or problem. This stage is normally described as a “stormy” stage. The group’s goals and objectives may still change as the group proceeds to implement its plans. The group aims to be effective in implementing planned activities and will eventually focus on a single issue or problem. The structure, rules and operating procedures of the group are loose and informal and membership is limited.

**Stage II - Group consolidation**

- At this stage, the core group starts to set up formal structure, rules and operating procedures that facilitate routine activities. These may take the form of a formal structure with by-laws, membership policies, rules and regulations, standard operating procedures, record and financial management systems, plan of activities, etc. (e.g. village forestry committee, village forestry association).
- A set of officers is elected and mobilized. Membership is gradually increasing.
- The “stormy” stage now leads to a “norm” stage that is characterized by villagers trying to set up written and/or unwritten standards of performance, rules, procedures, etc., for membership to abide by.
- This stage is also characterized by villagers continuously devising better ways and means to achieve the organization’s goals and objectives.

**Stage III - Group expansion**

- The organization becomes self-reliant and firmly entrenched in the village as it strives to perpetuate itself. Membership becomes extensive.
- Efficiency, effectiveness, transparency and viability are the standards for achieving organizational goals and objectives through a well-established mechanism of project planning, implementation and management, including participatory monitoring and evaluation.
- Organizational structure is formalized and stable.
- As the need arises, the organization links with similar organizations in other villages (inter-village forestry committees, group of VFCs/VFAs, etc.).
Lesson 1.5.3.2
Factors to consider in organization building and development for village forestry

Objective

At the end of the lesson, the participants should be able to explain the factors to consider in forming a suitable organization for village forestry.

Methods

Lecture-discussion

Time

One hour

Process

1. Ask the participants to discuss their own understanding of the factors to consider in forming a suitable organization for village forestry at the FMU level.

2. Summarize the output of the discussion and fill the gaps in participants’ understanding by giving a brief lecture using the learning notes.

Learning notes

What are the factors to consider in organization building and development for village forestry?

Since the villagers own the organization for village forestry, the criteria to be used in forming it must be developed and agreed upon by villagers themselves. The following factors and guide questions serve as guidelines in forming a suitable organization for village forestry at the FMU level:

a. It is based on the felt need of the villagers to organize themselves.

Guide questions:

• What do villagers mean when they say, “organize themselves”?
• Why is there a need for villagers to organize themselves?
• What are the purposes of villagers in organizing themselves?
• Are the existing village organizational structures adequate or inadequate to plan, implement, and manage village forestry activities? Why?
• Is there a need to organize an organization for village forestry? Why?
• What is the villagers’ understanding of an organization for village forestry?

b. It builds upon existing village organizational structures.

Guide questions:

• How will the organization be formed in relation to the existing village structures?
• Will it be a separate organization or an integral part of the existing village organizational structure(s)? Why?
• How does the organization on village forestry relate to the existing village administration and other village organizations?

c. It is simple in structure and transparent in operation with internal checks and balance.
Guide questions:
• How do the villagers want the organization to be in terms of its structure and its operation?
• How do villagers describe a simple organizational structure and transparent operation with internal checks and balance?
• Why do villagers want the organizational structure and operation to be simple and transparent with internal checks and balance?

d. It has clear organizational goals and objectives.
Guide questions:
• What do villagers mean by clear organizational goals and objectives?
• Why is it important to have clear organizational goals and objectives?

e. It builds upon the initial work of the village forestry core group.
Guide questions:
• What will happen with the village forestry core group and its activities when the organization is formed?
• How will the village forestry core group relate to the organization?

f. It gives due consideration for a single village and a village cluster or group (village forest management area).
Guide questions:
• What is the difference in forming an organization involving a single village and a village cluster or group?
• How will the organization be formed in a single village and in a village cluster or group?

g. It gives due consideration to ethnic, traditional, and other cultural variations.
Guide questions:
• How will the organization be formed in relation to differences in terms of ethnic grouping, traditions, and other cultural beliefs and practices (if any)?

h. It is officially recognized by the Government and has the right to enter into contracts.
Guide questions:
• Why is it important for the organization to be officially recognized by the Government?
• How will the organization be officially recognized by the Government?

i. Its common bond of membership is residential (meaning that the membership of the organization is only for qualified residents of a village or village cluster or group involved in village forestry).
Guide questions:
• Who should qualify to become members of the organization? Why?
Module 1.5.4
Organizational options for village forestry at the FMU level

Introduction

The module is aimed at providing the participants with knowledge and skills in assessing the options for organization building and development in village forestry and in assessing and selecting a suitable organizational option for village forestry at the FMU level.

Contents

The module consists of two lessons:

Lesson 1.5.4.1 Understanding the present village structure- In this lesson, the participants acquire a better understanding of the present organizational structure of the village and the rights and duties of the village administration in forest management.

Lesson 1.5.4.2 Assessing organizational options for village forestry at the FMU level- The participants acquire knowledge and skills in assessing and selecting a suitable organizational option for village forestry at the FMU level.
Lesson 1.5.4.1
Understanding the present village structure

Objectives

At the end of the lesson, the participants should be able to:

1. Discuss PRA results on a Venn diagram
2. Explain the present village structures
3. Enumerate the rights and duties of the village administration in forest management

Methods

Lecture-discussion

Materials

Decree no. 102 of the Prime Minister dated July 5, 1993, Forest Law 1996, PRA results on Venn diagram, large brown sheets of paper, marker, and masking tape

Time

Two hours

Process

1. Form the participants into groups by village. Ask each group to: (a) review and analyze the existing organizational structure in their respective villages using the PRA results, i.e. the Venn diagram; and (b) discuss the roles and relationships of different groups or organizations in the village and the rights and duties of the village administration in forest management. Ask each group to present their outputs to the whole training group.

2. Summarize the group presentations and complement it with a lecture-discussion using the learning notes.

Learning notes

What is the present organizational structure of the village?

The organization and administration of villages in the Lao PDR is defined under the Constitution of the country and Decree No. 102 of the Prime Minister dated July 5, 1993.

Lao village

Under this decree, a village is established in any geographical area where there are more than 20 houses or more than 100 people living together without ethnic and/or religious discrimination. If the houses are less than the number fixed under this decree, it has to be annexed to an adjacent established village. The establishment and demarcation of a village is approved by the chief of the province upon the recommendation of the chief of the district having territorial jurisdiction over the proposed village.
**Organizational structure of the Lao village administration**

**Chief of the village (Naiban)**

Under this decree, a chief of the village administers the village assisted by one or two deputies depending on the size of the village. The villagers directly elect the *naiban*. A duly designated representative of the district chief supervises the election process. The chief of the district submits the election result to the chief of the province for confirmation. The *naiban* has a term of office of two (2) years and receives compensation from the State.

The *naiban* and his/her deputies, with the assistance of the committees, administers, and coordinates the implementation of all political, economic, and socio-cultural activities in the village. The *naiban* is authorized to issue, in the interest of the village, rules and regulations not contrary to existing laws and customs. The *naiban* also informs higher authorities of the overall situation, problems, and progress of development work in the village.

**Village committees**

The *naiban* is assisted by three (3) committees in the administration of the village. Each committee is comprised of three (3) members and is headed by either the *naiban* or his/her deputies. These committees and their responsibilities are as follows:

- **Economic Committee.** Coordinates all activities, groups, and organizations relating to agriculture, forestry, veterinary, business, and other income generating activities in the village; collects information and maintains statistics on crop and livestock production, business, income, and other economic activities in the village; collaborates in the collection of taxes (e.g. land tax) and other contributions from villagers.

- **Public Order and Safety Committee.** Maintains peace and order in the village.

- **Socio-Cultural Committee.** Mobilizes collective effort in the construction of social infrastructures such as schools, roads, temples, irrigation canals, health clinics, and other facilities; promotes the protection of historical and cultural places within the village; organizes traditional and cultural festivities in the village; and promotes cleanliness and healthy ways of living amongst villagers.

**Village groups**

The village is divided into groups or *nouays*. Each *nouay* is comprised of 10-15 families and is headed by the chief of the group designated by the *naiban*.

**Village organizations**

There are legally established organizations such as the party organization (*nouay pak*), social (mass) organization (e.g. women and youth unions), and others existing in the village. These organizations operate in accordance with their respective by-laws and in conformity with existing village rules and regulations. (See handout on the organizational structure of the Lao village administration.)
What are the rights and duties of the village administration in forest management and conservation?

Under the 1996 Forestry Law, the village administration is included in the organization for the management of forest and forestry activities (Section V- Article 59). The rights and duties of village administration in forest management are spelled out under section 63 of the 1996 Forestry Law, as follows:

- Organizes the implementation of decisions and orders from the district agriculture and forestry office (DAFO) concerning forest, forest land, and forest activities

- Organizes the allocation of village forest and forest land to individuals and organizations within the village for them to manage, protect, conserve, and use this land efficiently according to agreements, plans, and regulations approved by the DAFO

- Informs and educates villagers on the importance and value of forest and forest land, watersheds, and the natural environment

- Monitors changes in the conditions of forest, the environment, and the operation of forestry activities in the area of the village and report these to the DAFO

- Mobilizes villagers to manage forest and forest land within the area of the village

- Develops specific village regulations for the management, protection, and conservation of forest, watersheds, wildlife, and the environment appropriate to the actual conditions of the village

- Organizes sedentary livelihoods for villagers aimed at limiting and ending tree felling, damage to forest, and protecting and conserving the environment to allow the regeneration and development of forest and forest resources

- Permits villagers to fell trees within the village in accordance with existing forestry laws, rules, and regulations

- Monitors and prevents any hunting or sale of wildlife in violation of existing regulations

- Leads the prevention of harmful activities affecting forest resources, watersheds, and the environment such as tree felling, forest fires, and other activities, which damage forest resources, wildlife, and water resources
Handout no. 1.5.4.1.1 - Organizational structure of the Lao village administration
(as per Decree No. 102 of the Prime Minister dated 5 July 1993)

- Chief of the village (*Naiban*)
- Two deputy chiefs
- Elders

- Economic Committee (3 members)
  - Agriculture
  - Forestry
  - Veterinary
  - Business
  - Income generating activities

- Socio-Cultural Committee (3 members)
  - Health
  - Education
  - Women
  - Youth
  - Culture

- Public Order and Safety Committee (3 members)
  - Military
  - Police
Lesson 1.5.4.2
Assessing organizational options for village forestry at the FMU level

Objectives
At the end of the lesson, the participants should be able to:

1. Discuss and assess the organizational options for village forestry at the FMU level
2. Discuss the requirements for forming an organization for village forestry at the FMU level

Methods
Lecture-discussion

Materials
Handouts on the structure of organizational options for village forestry at FMU level:
1. village administration with village forest volunteers
2. village administration with a village forestry core group
3. village administration with a village forestry committee
4. village administration with a village forestry association

Handout on the organizational structure of a VFA

Time
Three hours

Process
1. Form the participants into groups (by village). Ask each group to identify and discuss the different organizational options for village forestry at the FMU level such as:
   - Option 1 - Village administration with village forest volunteers (VFFs)
   - Option 2 - Village administration with a village forestry core group (VFCG)
   - Option 3 - Village administration with a village forestry committee (VFC)
   - Option 4 – Village administration with a village forestry association (VFA)

   Use the following guide questions in discussing each of the above options:

   a. What are the roles and responsibilities of the organization for village forestry (VFF, VFCG, VFC, VFA, etc.) and village administration in regard to the planning, implementation, and management of village forestry activities?
   b. What is the relationship between the organization for village forestry and the village administration in regard to village forest management?
   c. Can the village administration and organization for village forestry effectively manage the village forestry activities in the village? Do they have enough time, manpower, organizational efficiency, and other needed resources?
   d. Can accountability and checks and balance be properly established?
   e. For a village cluster or group, how will the village administration and the organization for village forestry be organized to manage village forestry activities? Who will be responsible for organizing them?
2. Summarize the discussion and give a brief lecture to complement the participants’ understanding of the different organizational options for village forestry at the FMU level using the learning notes.

**Learning notes**

It must be noted that many villages are already organized (i.e. village committees, groups, etc.) The villagers with the assistance of the state forestry staff undertake an assessment of these existing village organizations to determine if they are suitable and responsive to the needs of the villagers and to the requirements of village forestry. The decision to form a new organization for village forestry depends on the results of a thorough assessment of organizational options for village forestry at the FMU level.

**What are the requirements for forming an organization for village forestry at the FMU level?**

1. Thorough discussion of the organizational options for village forestry by villagers with assistance from state forestry staff, as needed.
2. Regulations and procedures for the formation and official recognition of organizations for village forestry.
3. Adequate training and extension support provided to villagers by state forestry staff.
4. Involvement and guidance of district authorities (i.e. District Chief, DAFO, etc.).

**What are some of the organizational options for village forestry at the FMU level?**

**Option 1 - Existing village administration with village forest volunteers (VFFs)**

- Under this option, the village administration is directly responsible for the planning, implementation, and management of village forestry activities. The village administration prepares and approves simple rules, procedures and plans for village forestry and implements them through the village forest volunteers (composed of 2-3 persons or may be increased as needed).

- The village administration performs both the policy making and implementing functions. It form into working teams (composed of VFFs) to undertake specific village forestry activities in collaboration with state forestry staff. The village administration is accountable to the district authorities concerned.

- In a village cluster or group, the village administrations in the cluster jointly perform both the policy making and implementation functions of village forestry in the cluster or group. Working teams (comprised of VFFs from villages in the cluster or group) are organized to perform specific village forestry activities in the cluster or group. The rules procedures and plans governing village forestry operations in the cluster or group are jointly approved by the village administrations and villagers in the cluster or group.

**Advantages**

- The existing village administration is established under the laws of Law PDR and has already a legal personality (Decree no. 102 of the Prime Minister dated July 5, 1993).
• The village administration has a legal mandate for the management of forests, forest lands, and forestry activities (New Forestry Law dated 11/19/96).

• Villagers are already familiar with the structure and operation of the village administration.

• This option is suitable in small villages where village forestry activities are traditional (e.g. forest protection against illegal logging, dissemination of information) and limited. Moreover, the organizing requirement for village forestry is minimal.

• It does not lead to proliferation of village organizations in the village that may cause confusion amongst villagers.

Disadvantages

• The village administration is responsible for the overall management and coordination of all political, economic, and socio-cultural activities in the village. Involving the village administration in the planning, implementation, and management of village forestry activities will require much of its time and effort.

• Project management can become messy and complicated, particularly when the village administration manages different village development activities simultaneously.

• It is not easy to establish internal “checks and balance” and to determine accountability.

See handout for the organizational structure of option 1.

Option 2 – Village administration with a village forestry core group (VFCG)

• An informal village forestry core group (consisting of 5-10 people or increased as needed) is formed by the village administration and villagers. It is directly responsible for planning, implementing, and managing initial village forestry activities in collaboration with the state forestry staff. The VFCG elects a Chairperson, vice Chairperson, secretary and treasurer (as needed).

• Under this option the VFCG prepares simple rules, procedures and plans (short term) for village forestry and has these approved by the village administration and villagers. Said rules, procedures and plans are implemented by the VFCG. Working teams (e.g. village land use mapping teams, village cadastral survey teams, village PRA teams) are formed, as needed, to undertake initial village forestry activities in collaboration with the state forestry staff. The VFCG supervises the operations of these teams and is accountable to the village administration and villagers. The village administration is accountable to the district authorities concerned.

• In a village cluster or group, the village administrations in the cluster or group can jointly serve as the policy making body for village forestry. The VFCGs in the village cluster or group jointly implements the approved rules, procedures or plan for village forestry within the cluster or group. Working teams are formed consisting of villagers in the cluster or group and supervised by the VFCGs. The VFCGs are accountable to
the village administrations in the cluster and the latter are jointly accountable to the district authority concerned.

Advantages

• Option 2 has the same advantages as in Option 1.

• This option is suitable to villages where initial village forestry activities are being implemented. Villagers are still trying to learn how to effectively organize themselves for village forestry. The VFCG structure is loose and informal. Its rules, procedures and plans (short term) are relatively simple.

• It is easy to determine accountability and to establish internal “checks and balance”.

Disadvantages

• The village forestry core group as an informal group cannot respond and cope up with the increasing organizing requirements of expanding village forestry activities.

• Possible organizational conflict between VFCG and village administration may occur if properly planned and managed.

See handout for the organizational structure of option 2.

Option 3- Village administration with a village forestry committee (VFC)

• A formal village forestry committee (consisting of 10-15 people or increased as needed) is formed by the village administration and villagers. It is directly responsible for planning, implementing, and managing increasing village forestry activities in collaboration with the state forestry staff. The VFC elects a Chairperson, vice Chairperson, secretary and treasurer (as needed).

• Under this option, the VFC prepares more elaborate rules and procedures and long term plans for village forestry which are approved by the village administration and villagers. Said rules, procedures and plans are implemented by the VFC. Working teams are formed, as needed, to undertake expanded village forestry activities in collaboration with the state forestry staff. The VFC supervises the operations of the teams and is accountable to the village administration and villagers. The village administration is accountable to the district authorities concerned.

• In a village cluster or group, the village administrations in the cluster or group can jointly serve as the policy making body for village forestry. The VFCs in the village cluster or group jointly implement the approved rules, procedures or plans for village forestry in the cluster or group. Working teams are formed composed of villagers from the cluster or group and supervised by the VFCs. The VFCs are accountable to the village administrations in the cluster and the latter are jointly accountable to the district authority concerned.

Advantages

• Option 3 has the same advantages as in Options 1 and 2.
• The village forestry committee is a formal group. The VFC has more elaborate rules and procedures and a long term plan for village forestry. The roles and responsibility of the VFC and its relationship with the village administration is clear.

• This option is suitable to small villages where the implementation of village forestry activities is limited and the requirements for organizing are minimal.

• It is easy to determine accountability and to establish internal “checks and balance”.

Disadvantages

• The village forestry committee cannot respond and cope up with the increasing organizing requirements of expanding and more complex village forestry activities in large villages.

• Possible organizational conflict between VFC and village administration may occur if not properly planned and managed.

• There is a potential danger of proliferation of formal organizations in the villages.

See handout for the organizational structure of Option 3.

Option 4 - Village administration with a village forestry association (VFA)

• A more elaborate and formal village forestry association (consisting of functional committees and working teams) is formed by the village administration and villagers. It is a conglomerate of clearly defined committees, namely: the village assembly (highest decision making body); the policy committee (policy making body) and management committee (implementing body responsible for day-to-day operations). Other committees and working teams are organized to perform specific tasks, e.g. elections, education and training, and internal audits and inventory. See handout for the organizational structure of a village forestry association. The VFA is directly responsible for the overall planning, implementation, and management of expanding and complex village forestry activities. It is accountable to the village administration and the latter is accountable to the district administration concerned.

• In a village cluster, the VFA members in the cluster or group serve as the VFA general assembly (highest making body). The VFA policy and management committees are comprised of villagers from the cluster or group duly elected by the VFA general assembly. Working teams consist of capable villagers from the village cluster or group.

Advantages

• The village forestry association is a more elaborate and formal organization. The VFA has more elaborate rules and standardized procedures and a long-term plan for village forestry. The roles and responsibility of the VFA and its relationship with the village administration is clear.

• The structure of the village forestry association makes use of “committees” and blends well with the present village organizational structure.
• This option is suitable for large villages where the implementation of village forestry activities is more complex and the requirements for organizing are high.

• It is easy to determine accountability and to establish internal “checks and balance”.

Disadvantages

• Possible organizational conflict between VFC and village administration may occur if not properly planned and managed.

• There is a potential danger of proliferation of formal organizations in the villages.

See handout for the organizational structure of Option 4.
Handout no. 1.5.4.2.1 Organizational structure for Option 1
Village administration with village forest volunteers

- Chief of the village (Naiban)
  - Two deputy chiefs
    - Elders

- Economic Committee (3 members)
  - Agriculture
  - Forestry (2-3 volunteers)
  - Veterinary
  - Business
  - Income generating activities

- Socio-Cultural Committee (3 members)
  - Health
  - Education
  - Women
  - Youth
  - Culture

- Public Order and Safety Committee (3 members)
  - Military
  - Police
Handout no. 1.5.4.2.2 - Organizational structure for Option 2
Village administration with a village forestry core group

Chief of the village
(\textit{Naiban})

Two deputy chiefs

Elders

Economic Committee
(3 members)

Elders

Socio-Cultural Committee
(3 members)

Public Order and Safety Committee
(3 members)

Agriculture
Forestry (5-10 VFCG)
Veterinary
Business
Income generating activities

Health
Education
Women
Youth
Culture

Military
Police
Handout no. 1.5.4.2.3 - Organizational structure for Option 3
Village administration with a village forestry committee

Chief of the village (Naiban)
Two deputy chiefs

Elders

Economic Committee (3 members)
- Agriculture
- Forestry
- Veterinary
- Business
- Income generating activities

Socio-Cultural Committee (3 members)
- Health
- Education
- Women
- Youth
- Culture

Public Order and Safety Committee (3 members)
- Military
- Police

Village forestry committee
Handout no. 1.5.4.2.4 - Organizational structure for Option 4
Village administration with a village forestry association

Chief of the village
(Naiban)

Two deputy chiefs

Elders

Economic Committee
(3 members)

Socio-Cultural Committee
(3 members)

Public Order and Safety Committee
(3 members)

Agriculture
Forestry
Veterinary
Business
Income generating activities

Health
Education
Women
Youth
Culture

Military
Police

Village forestry association
Handout no. 1.5.4.2.5 Organizational Structure of a Village Forestry Association

VFA General Assembly
(highest decision-making body)

Audit and Inventory (Property) Committee

VFA Policy Committee
(policy-making body)

Chairperson
Village Chief
Deputy Chairperson
Treasurer
Secretary
Officers

Election Committee

Education and Training Committee

VFA Management Committee
(implementing body)

Manager
Deputy Manager
Bookkeeper
Administrative and Finance

Working Team
Working Team
Working Team
Working Team

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Course 1.6
Forming the village forestry association and securing official recognition

Introduction

The course is aimed at strengthening the capabilities of (a) PAFO trainers in training the villagers on how to form a village forestry association and to secure official recognition for district and provincial authorities; (b) PAFO and DAFO controllers in reviewing and processing the requests of village forestry associations for securing official recognition; (c) DAFO extension workers in facilitating and providing assistance to villagers in forming a village forestry association and in securing official recognition; and (d) villagers in forming a village forestry association and in securing official recognition.

The lessons are designed to provide the participants with knowledge and skills in reaching a consensus on the elements of the village forestry association that serve as inputs in formulating the VFA by-laws. It gives the participants a better understanding of the requirements and procedures for forming a village forestry association and in securing official recognition from district and provincial authorities. (See figure 1. Flowchart on procedures for forming a VFA)

Contents

The course is comprised of five modules:

**Module 1.6.1 Reaching a consensus on the elements of a village forestry association** – In this module, the participants are provided with knowledge and skills in forming a village forestry association and in reaching a consensus on the elements of a village forestry association.

**Module 1.6.2 Formulating the VFA by-laws** - The participants acquire a better understanding of the rationale, importance and contents of the VFA by-laws and factors to consider in formulating the VFA by-laws. The participants acquire the knowledge and skills in formulating, approving, and amending the VFA by-laws.

**Module 1.6.3 Forming the village forestry association** - The participants are provided with knowledge and skills in conducting a VFA membership campaign and registration including the election of VFA officers.

**Module 1.6.4 Requirements and procedures in securing VFA official recognition** - The participants learn the importance, requirements and procedures for securing VFA official recognition.

**Module 1.6.5 Writing the VFA articles of association and other requirements for securing official recognition** - The participants learn the importance and contents of the VFA articles of association, VFA treasurer’s certification, and letter request for securing official recognition.
Figure 1. Flowchart on procedures for forming a village forestry association

**Village forestry core group**

- Records the consensus reached in meetings

**Village administration**

- Discuss with villagers and reach consensus on:
  - Name & objectives of VFA
  - VFA organizational structure
  - VFA administration & management
  - VFA officers & membership
  - Use of VFA income
  - Cost and benefit sharing
  - Contents of VFA by-laws

- Drafts of the VFA by-laws based on consensus

**Village forestry association**

- Conduct VFA membership campaign

- Conduct VFA membership registration

- Certifies the VFA membership

- Convene the first meeting of the VFA membership

- Certifies the VFA by-laws and articles of association

- Constitute the VFA general assembly, ratify the VFA by-laws and articles of association, and constitute election

- Constitute the VFA policy committee, management committee and other committees (village chief is automatic member of VFA policy committee)

- Hand-over responsibilities, properties and documents to VFA officers
Module 1.6.1
Reaching a consensus on the elements of a village forestry association

Introduction

This module is aimed at strengthening the capabilities of the participants in discussing and reaching initial consensus on the elements of a village forestry association.

Contents

The module consists of five lessons:

Lesson 1.6.1.1 Reaching a consensus on VFA name and objectives- In this lesson, the participants acquire the knowledge and skills needed in discussing and reaching an initial consensus on VFA name and objectives.

Lesson 1.6.1.2 Reaching a consensus on VFA administration and management- The participants are provided with knowledge and skills needed in discussing and reaching an initial consensus on VFA administration and management (eg. organizational structure, composition, responsibilities of the VFA organizational units).

Lesson 1.6.1.3 Reaching a consensus on VFA membership- The participants are equipped with knowledge and skills needed in discussing and reaching an initial consensus on VFA membership (eg. qualifications, rights and responsibilities, membership procedures, termination).

Lesson 1.6.1.4 Reaching a consensus on VFA officers - The participants acquire the knowledge and skills needed in discussing and reaching an initial consensus on VFA officers (eg. qualifications, responsibilities, term of office, compensation).

Lesson 1.6.1.5 Reaching a consensus on village forestry cost and benefit sharing and use of VFA income- The participants are provided with the knowledge and skills in discussing and reaching an initial consensus on sharing of village forestry costs and benefits and the use of VFA income.
Lesson 1.6.1.1
Reaching a consensus on VFA name and objectives

Objective

At the end of the lesson, the participants should be able to discuss and reach consensus on the VFA name and objectives.

Methods

Lecture-discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

One hour

Process

1. Ask the participants to discuss the VFA name and objectives using the following guide questions:
   - What is the name of the VFA?
   - Why is it important to have a VFA name?
   - What are the reasons for choosing the VFA name?
   - Why is it important to have VFA objectives?
   - What are the objectives of the VFA?

2. Summarize the important points of the discussion and give a brief lecture to fill the gap in participants’ understanding using the learning notes.

3. Ask the participants to discuss and reach an initial consensus on the name and objectives of the VFA and write them on a large brown sheet of paper.

Learning notes

What is the importance of a VFA name?

A VFA name is important in giving an identity to the association and in differentiating itself from other VFAs. It is used by the VFA in dealing with government agencies, companies, organizations, VFAs, and other groups.

Why are VFA objectives important?

VFA objectives are the basis for the existence and operations of the association.
What are some examples of VFA objectives?

- To sustainably manage and protect village forest in partnership with state forestry agencies
- To improve the socio-economic condition of the villagers through fair sharing of costs and benefits of sustainable forest management
Lesson 1.6.1.2
Reaching a consensus on VFA administration and management

Objectives

At the end of the lesson, the participants should be able to discuss and reach initial consensus on administration and management including the organizational structure of the VFA.

Method

Lecture discussion

Materials

Large brown sheets of paper, marker, and masking tape
Handout on the organizational structure of a VFA

Time

Two hours

Process

1. Ask the participants to discuss the VFA administration and management using the following guide questions:
   
a. What is the organizational structure of the village forestry association?
   b. What are the responsibilities and composition of the:
      
      - VFA General Assembly?
      - VFA Policy Committee?
      - VFA Management Committee?
      - VFA Training and Education Committee?
      - VFA Election Committee?
      - VFA Audit and Inventory (Properties) Committee?
      - VFA working teams?

2. Summarize the important points of the discussion and give a brief lecture to fill the gaps in participants’ understanding using the learning notes and handout.

3. Ask the participants to reach an initial consensus on the VFA administration and management including the organizational structure of the VFA and write them on a large brown sheet of paper.
Learning notes

What is the structure of the village forestry association?

To establish familiarity amongst villagers, the structure of the village forestry association makes use of “committees and working teams” to suit the existing organizational structure in Lao villages. It is comprised of clearly defined units, namely: the VFA general assembly (highest decision making body); the VFA policy committee (policy making body) and VFA management committee (implementing body responsible for the day-to-day operations). It is expected that there are variations in the compositions of the VFA policy and management committees depending on the situation in the villages and preferences of villagers. Other committees and working teams (ie. education and training committee, village forest inventory teams, village cadastral survey teams, tree marking teams, etc) are organized to perform specific work. (See handout on the sample organizational structure of a village forestry association)

What are the responsibilities and composition of the VFA organizational units?

**VFA General Assembly**
- highest decision making body of the VFA
- approves the VFA by-laws and rules
- approves the programs, plans, and budgets of the association
- elects, suspends, and removes any VFA officers except the village chief
- Comprised of all VFA members

**VFA Policy Committee**
- policy making body of the VFA
- formulates VFA by-laws and rules for approval of the VFA general assembly and village administration
- prepares the VFA articles of association and other requirements for securing official recognition
- administers, oversees and manages VFA programs, projects and activities
- prepares VFA programs, plans and budgets for approval of the VFA general assembly and the village administration
- prepares and submits progress and financial reports to the VFA general assembly and village administration
- comprised of a chairperson, vice chairperson, treasurer, secretary, and members elected by the VFA general assembly. The village chief and the manager are automatic members of the policy committee.

**VFA Management Committee**
- implementing body of the VFA
- implements the approved VFA by-laws, rules, contracts, programs and plans
- directs, controls, supervises, implements and evaluates the day-to-day operations of the VFA
- organizes working teams to undertake specific village forestry and other related tasks
- comprised of a manager, deputy manager and bookkeeper elected by the VFA general assembly. The VFA treasurer and secretary concurrently act as the finance and administrative officers, respectively.
**VFA Election Committee**
- administers and supervises the conduct of the election of VFA officers
- prepares rules for electing VFA officers for approval of the VFA general assembly
- comprised of a Chairperson, vice chairperson, secretary and members constituted by the VFA general assembly

**VFA Education and Training Committee**
- responsible for planning and implementing VFA information and extension activities in collaboration with state forestry staff
- conducts VFA membership campaign
- assists in organising on-site training courses on village forestry conducted by state forestry staff
- acts as the counterpart of state forestry extension staff in planning and conducting village forestry extension work
- comprised of a chairperson, vice chairperson, secretary and members appointed by the VFA policy committee (The vice chairperson of the VFA policy committee acts concurrently as the chairperson of the VFA Education and Training Committee)

**VFA Audit and Inventory (Properties) Committee**
- responsible for conducting internal audit of VFA financial operations and inventory of VFA properties
- formulates rules on VFA internal audit and inventory of properties for approval of the VFA general assembly
- prepares and submits VFA internal audit and inventory (properties) reports to the VFA general assembly
- comprised of chairperson, vice chairperson, and members constituted by the VFA general assembly

**VFA working teams**
- responsible for implementing specific village forestry and other related tasks assigned by the VFA management committee
- comprised of a team leader and members deployed by the VFA management committee
Lesson 1.6.1.3
Reaching a consensus on VFA membership

Objective

At the end of the lesson, the participants should be able to discuss and reach consensus regarding VFA membership (eg. qualifications, rights and responsibilities, membership procedures, termination).

Methods

Lecture-discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time:

Two hours

Process

1. Ask the participants to discuss VFA membership (eg. qualifications, rights and responsibilities, membership procedures and termination) using the following guide questions:

   • Who can qualify for VFA membership? Will membership be based on residence, age, gender, household or family representation, etc?
   • Will VFA membership be compulsory or voluntary?
   • Will there be a VFA membership fee collected? If yes, how much?
   • What are the responsibilities of a VFA member? eg. conforms with the VFA by-laws and rules, supports VFA programs, plans, and activities.
   • What are the rights of a VFA member? ie. votes on important matters brought to the VFA general assembly for decision, etc.
   • How can VFA membership be terminated? eg. by withdrawal or removal.

2. Summarize the important points of the discussion and give a brief lecture to fill the gaps in participants’ understanding using the learning notes.

3. Ask the participants to reach an initial consensus regarding VFA membership and write the notes on a large brown sheet of paper

Learning notes

Who are qualified to become VFA members?

VFA membership is voluntary and open to Lao citizens residing in the village where the VFA operates. Persons must be 18 years of age and willing to undertake the responsibilities of a VFA member.
What are the rights and responsibilities of a VFA member?

**Rights of a VFA member**

- to participate in VFA meetings
- to vote on all matters brought before the VFA general assembly
- to seek elective position in the association
- to share in the benefits of village forestry

**Responsibilities of a VFA member**

- to comply with the VFA by-laws, rules, and decisions
- to support the objectives, programs, plans, and activities of the association
- to share the costs of village forestry

What are the procedures and requirements for VFA membership?

Qualified villagers make an application with the VFA and pay a minimal membership fee as per approved VFA by-laws.

How can VFA membership be terminated or reinstated?

VFA membership can be terminated by withdrawal (resignation), suspension, or removal. Membership can be reinstated by the VFA general assembly based on an appeal from the suspended or removed VFA member.
Lesson 1.6.1.4
Reaching a consensus on VFA officers
(e.g. qualifications, responsibilities,
term of office and compensation)

Objective

At the end of the lesson the participants should be able to discuss and reach an initial consensus on the qualifications, responsibilities, term of office and compensation of VFA officers.

Methods

Lecture discussion

Materials

Large brown sheets of paper, marker, and masking tapes

Time

Three hours

Process

1. Ask the participants to discuss the qualifications, responsibilities, term of office and compensation of VFA officers using the following guide questions:

   - How many people will compose the VFA policy committee? management committee? election committee? education and training committee? audit and inventory (properties) committee?
   - What are the duties and responsibilities of a (a) Chairperson? (e.g. presides over VFA meetings); (b) Vice chairperson? (e.g. in the absence of the chairperson, he/she performs the duties of the chairperson); (c) Secretary? (e.g. keeps VFA non-financial records); (d) Treasurer? (e.g. keeps all money and makes payments and receipts); (e) Bookkeeper (e.g. keeps all VFA financial records); and (f) Manager? (e.g. in charge of the day to day operations of the VFA).
   - Who can qualify to become VFA officers (i.e. based on knowledge, skills and experience)?
   - How many years can VFA officers serve (e.g. term of 2 years)?
   - What incentives can be provided to VFA officers (e.g. training, compensation)?

2. Summarize the important points of the discussion and give a brief lecture to fill the gaps in participants’ understanding using the learning notes.

3. Ask the participants to reach an initial consensus regarding VFA officers (e.g. qualifications, responsibilities, term of office and compensation) and write them on large brown sheets of paper.
Learning notes

Who are the officers of the village forestry association?

- **VFA Policy Committee** – composed of a chairperson, vice chairperson, treasurer, secretary, and members elected by the VFA general assembly. (The village chief and the manager are automatic members of the VFA policy committee.)

- **VFA Management Committee** – composed of a manager, deputy manager, finance officer (concurrently the VFA treasurer), bookkeeper, and administrative officer (concurrently the VFA secretary) elected by the VFA general assembly.

- **VFA Election Committee** – composed of a chairperson, vice chairperson, and members constituted by the VFA general assembly.

- **VFA Education and Training Committee** – composed of a chairperson (concurrently vice chairperson of the VFA policy committee), vice-chairperson, and members appointed by the VFA policy committee.

- **VFA Audit and Inventory (Properties) Committee** – composed of a chairperson, vice chairperson and members constituted by the VFA general assembly.

What are the qualifications of VFA officers?

- VFA member
- Possess the necessary knowledge, skills, experience, time, and willingness to work

How will VFA officers be elected?

The election of VFA officers is through a majority and secret voting of the VFA general assembly. The election of VFA officers is in accordance with the procedures approved by the VFA general assembly and handled by the VFA election committee.

How will the VFA officers be compensated?

The VFA officers may be compensated out of the income generated by the VFA. The rates of compensation are approved by the VFA general assembly and the village administration in consultation with the district authorities concerned.
Lesson 1.6.1.5
Reaching a consensus on village forestry costs and benefits sharing and use of VFA income

Objective

At the end of the lesson, the participants should be able to discuss and reach a consensus on village forestry costs and benefits sharing including the use of VFA income.

Methods

Lecture discussion

Materials

Large brown sheets of paper, marker, masking tape

Time

Three hours

Process

1. Ask the participants to discuss the village forestry costs and benefits sharing including use of VFA income using the following guide questions:

   - What are the costs of village forestry?
   - How can these costs be shared among villagers?
   - How can these costs be shared between the State and the VFA?
   - What are the benefits from village forestry?
   - How can these benefits be shared among villagers?
   - How can these benefits be shared between the state and the VFA?
   - How will the VFA income be used?

2. Summarize the important points of the discussion and give a brief lecture to fill the gaps in participants’ understanding using the learning notes

3. Ask the participants to reach initial consensus on village forestry costs and benefits sharing including the use of VFA income and list the notes on the brown paper.
Module 1.6.2
Formulating the VFA by-laws

Introduction

The module is aimed at providing the participants with (a) an understanding of the importance of the VFA by-laws and the factors to consider in formulating the VFA by-laws, and (b) knowledge and skills in writing the VFA by-laws.

Contents

The module consists of four lessons:

Lesson 1.6.2.1 Rationale and importance of the VFA by-laws- In this lesson, the participants acquire an understanding of the VFA by-laws and their importance.

Lesson 1.6.2.2 Factors to consider in formulating the VFA by-laws- The participants learn the factors to consider in formulating the VFA by-laws.

Lesson 1.6.2.3 Procedures in formulating, approving, and amending the VFA by-laws- The participants are provided the knowledge and skills in formulating, approving, and amending the VFA by-laws.

Lesson 1.6.2.4 Writing the VFA by-laws- The participants acquire the knowledge and skills needed and proceed in writing the VFA by-laws.
Lesson 1.6.2.1
Rationale and importance of VFA by-laws

Objective
At the end of the lesson the participants should be able to explain the meaning, rationale, and importance of the VFA by-laws.

Method
Lecture-discussion

Time
45 minutes

Process
1. Initiate discussions by asking the participants to identify existing rules in the village. Ask them to explain the rationale and importance of these village rules.

2. Ask the participants to discuss the rationale and importance of VFA by-laws using the following guide questions:
   - What are VFA by-laws?
   - What is the purpose of VFA by-laws?
   - Why are VFA by-laws important?

3. Summarize the important points of the discussion and give a brief lecture to fill the gaps in participants’ understanding using the learning notes.

Learning notes

What is a VFA By-laws?
VFA by-laws are a set of written agreements or rules made by members of a village forestry association (VFA) to be used by and for themselves.

Why is the set of VFA by-laws important?
- It guides and governs the operations and internal affairs of the VFA
- It puts on record the VFA goals and objectives
- It provides direction in the planning and implementation of VFA activities
- It sets down the VFA organizational structure
- It provides guidance to VFA members and officers regarding their responsibilities and rights
- It disciplines and binds the VFA members together
- It minimizes conflicts and confusion amongst VFA members
- It is a requirement for securing VFA official recognition
Lesson 1.6.2.2
Factors to consider in formulating the VFA by-laws

Objective

At the end of the lesson, the participants should be able to discuss the factors to consider in formulating the VFA by-laws.

Method

Lecture-discussion

Time

45 minutes

Process

1. Ask the participants to discuss and list (write down) the factors that they think should be considered in formulating the VFA by-laws. Ask them to relate this to their own experience in preparing their own village rules.

2. Summarize the important points of the discussion and give a brief lecture to fill the gaps in participants’ understanding using the learning notes.

Learning notes

What are the factors to consider in formulating a set of VFA by-laws?

- It reflects the needs of VFA members
- It ensures clear and fair sharing of costs and benefits among VFA members and between VFA and the state
- It is simple and understandable to VFA members
- It promotes unity, harmony, and cooperation amongst VFA members
- It is consistent with the objectives for which the VFA was formed
- It must be general in application and not directed towards particular VFA members only
- It is consistent with existing laws, rules, and regulations of the village and the state
- It is ratified on a democratic process
- It is consistent with the VFA articles of association
Lesson 1.6.2.3
Procedures for formulating, approving, and amending the VFA by-laws

Objective
At the end of the lesson, the participants should be able to explain the procedures for formulating, approving, and amending the VFA by-laws.

Methods
Lecture, discussion, and group work

Materials
Handout on sample of a set of VFA by-laws, sheets of paper, pen

Time:
Two hours

Process
1. Ask the participants to discuss the procedures for formulating, approving, and amending the VFA by-laws using the following guide questions:
   - Who should formulate the VFA by-laws?
   - Who should approve and amend the VFA by-laws?
   - For whom are the VFA by-laws formulated?
   - When should the VFA by-laws be formulated? approved? amended?
   - How should the VFA by-laws be formulated? approved? amended?

2. Summarize the important points of the discussion and give a brief lecture to fill the gaps in participants’ understanding using the learning notes.

Learning notes

Who should formulate the VFA-by laws?
The initial draft of the VFA by-laws is written or prepared by the VFCG in consultation with the village administration and other key villagers.

For whom is the set of VFA by-laws formulated?
The set of VFA by-laws is formulated for use and guidance of VFA officers and members in the operations of the association.
When should the VFA by-laws be formulated?

As soon as the villagers select VFA as the suitable organizational option for village forestry at the FMU level, the formulation of the VFA by-laws can be initiated.

What are the procedures for formulating the VFA-by-laws?

The set of VFA by-laws is formulated step-by-step through discussions, meetings and consultations.

**Step 1** The VFCG conducts a series of meetings with village administration and villagers to discuss the need, rationale, and importance of forming a suitable organization for village forestry at the FMU level.

**Step 2** The VFCG leads the discussions with village administration and villagers on the different organizational options for village forestry. The villagers decide and agree on the most suitable organizational option.

**Step 3** If the villagers selected the VFA as the suitable organizational option for village forestry at the FMU level, the VFCG initiates the formation of the village forestry association. The VFCG conducts a series of meetings, discussions, and consultations with village administration and villagers and reach consensus on: VFA objectives and name; structure and responsibilities of committees and working teams; membership; officers; election rules and procedures; and sharing the village forestry costs and benefits among VFA members and between VFA and the state.

**Step 4** The VFCG continues the discussions with village administration and villagers regarding the need, rationale and importance of VFA by-laws, contents of the VFA by-laws (in addition to the ones already discussed in step 3) and the procedures in formulating, ratifying, and amending the VFA by-laws.

**Step 5** Based on the results of the discussions and initial consensus reached in steps 3-4, the VFCG drafts a VFA by-laws. At this stage, the VFA general assembly and the policy, management, and election committees are formed and election of VFA officers is initiated. As soon as the VFA officers are elected, the VFCG ceases to exist and hands over all records to the elected VFA officers along with any other documentation on village forestry.

**Step 6** The VFA officers lead the subsequent discussions on the draft VFA by-laws until the complete set is ratified by the VFA general assembly.

When should the VFA by-laws be ratified?

As soon as the set of VFA by-laws is thoroughly discussed and fully understood by VFA members, it is ready for ratification.
What are the procedures for ratifying the VFA by-laws?

**Step 1** The chairperson calls a VFA general assembly meeting to ratify the VFA by-laws. The chairperson presents the draft VFA by-laws to the VFA general assembly for final discussion prior to ratification. The chairperson ensures that there is a majority of members present during the meeting.

**Step 2** The VFA general assembly votes for the ratification of the VFA by-laws.

**Step 3** The chairperson and the village chief certifies the ratified VFA by-laws and affixes their signatures and the official seal.

**Note:** In the case of a village cluster or group, the village chiefs in the cluster or group sign and affix their official seals.

When can the VFA by-laws be amended?

Anytime a majority of the VFA members and/or VFA policy committee recognizes the need to amend or change any part of the VFA by-laws.

What are the procedures for amending the VFA by-laws?

**Step 1** A majority of the VFA members and/or the VFA policy committee can at any time initiate any amendments or changes on the approved VFA by-laws and may make a request for a special meeting of the VFA general assembly for such purpose.

**Step 2** The majority of the VFA general assembly discusses and votes for the approval or disapproval of the changes to the VFA by-laws during a meeting called for the purpose.

**Step 3** If approved, the amended VFA by-laws are certified by the chairperson and village chief and attached to the original VFA by-laws.

**Note:** In the case of a village cluster or group, the village chiefs in the cluster or group sign and affix their official seals.
Lesson 1.6.2.4
Writing the VFA by-laws

Objective

At the end of the lesson, the participants should be able to explain the contents and write the VFA by-laws.

Methods

Lecture discussion and guided group exercise

Material

Handout on sample VFA by-laws

Time

Three hours

Process

1. Based on the discussion and consensus reached in module 1.6.1, ask the participants to discuss and reach a consensus on the format and contents of the VFA by-laws using the learning notes and handout.

2. Form the participants into groups (eg. by VFAs) and ask them to write their respective VFA by-laws.

3. Review the output of each group and make suggestions for improvement as needed.

Learning notes

What are the contents of the VFA by-laws?

The VFA by-laws contain the following:

- **Legal reference**- shows the existing Government laws and regulations that support the formation and operations of the VFA
- **Name of the association**- shows the official name of the association
- **Objectives**- enumerates the purposes for forming the association
- **Membership**- explains the (a) membership qualifications, (b) responsibilities and rights of members, and (c) termination of membership by withdrawal or suspension/removal
- **VFA administration and management** – shows the (a) VFA organizational structure, (b) composition and responsibilities of the VFA general assembly, policy committee, and management committee, (c) qualifications and duties of VFA officers, (d) VFA general assembly and policy committee meetings and quorum, (e) election of officers, (f) term of office, (g) removal of VFA officers, (h) vacancies, and (i) compensation
• **Sharing of costs and benefits**- shows the (a) sharing of costs and other inputs of village forestry, (b) sharing of benefits of village forestry, (c) village forestry association fund, and (d) use of income

• **Approval of the by-laws**- indicates by whom and how the VFA by-laws will be approved

• **Changes in the by-laws**- indicates by whom and how changes in the VFA by-laws will be approved

• **Date of approval of the by-laws**- shows the date when the set of by-laws was ratified by the VFA general assembly

• **Signatures**- shows the signatures of the VFA chairperson and village chief(s) concerned
By-Laws of the -------------------------- Village Forestry Association

References:

2. Decision No. 0429/Maf dated June 18, 1992 on the Duties and Rights in Managing Forestry Resources at Village level.
3. The Forestry Law of 1996

Note: Cite other relevant laws, legislations, rules and regulations as applicable

We, the undersigned, citizens of the Lao PDR and residents of Ban __________________
District of _____________________, Province of __________________, representing a
majority of the members of the _________________ Village Forestry Association,
hereinafter referred to as the association, do hereby adopt the following by-laws:

CHAPTER I
Name of the association

Article 1. Name. The name of association is:

CHAPTEI II
Objectives

Article 2. Objectives. The objectives of the association are:
(a) to sustainably manage and protect designated village forest in partnership with state forestry agencies; and
(b) to improve the socio-economic condition of its members through fair sharing of costs, inputs, and benefits in the sustainable management of designated village forest.

CHAPTER III
Membership

Article 3. Qualifications for membership. Membership to the association is voluntary and open to qualified men and women who are:
(a) citizens of the Lao PDR and permanent residents of Ban __________________
(b) at least _____ years of age; and
(c) willing to undertake the responsibilities of a member.

Article 4. Membership application and fee. A written application is made and presented to the policy committee (or to the village forestry core group) including a membership fee of ________ kips.
**Article 5. Responsibilities of a member.** A member has the following responsibilities:

(a) to comply with the by-laws, rules, regulations, and decisions of the association;
(b) to support the objectives, programs, plans, and activities of the association; and
(c) to share the costs and inputs of village forestry including other related activities of the association.

**Article 6. Rights of a member.** A member has the following rights:

(a) to participate in discussions during membership meetings;
(b) to vote on all matters brought before membership meetings;
(c) to seek any elective position in the association;
(d) to inspect and examine the books of the accounts, minutes of the meetings, and other records of the association; and
(e) to share in the benefits of village forestry and other related activities of the association.

**Article 7. Termination of Membership.** Membership can be terminated by withdrawal or removal.

**Article 8. Withdrawal.** A member who wants to withdraw from the association informs the policy committee.

**Article 9. Suspension/removal.** The policy committee can remove a member or suspend his/her right to vote if he/she does not undertake his/her responsibilities as a member. The action of the policy committee in suspending or removing a member can be applied to the general assembly for reconsideration and final decision.

**CHAPTER IV
Administration and management of the association**

**Article 10. Structure of the association.** The association comprises three (3) main bodies, namely: (a) general assembly (b) policy committee, and (c) management committee. It can form other committees on election, education and training, audit and inventory and others including working teams as needed. The VFA organizational structure is shown in annex A.

**Article 11. General assembly.** The general assembly is the highest decision making body of the association. It comprises all members of the association.

**Article 12. Responsibilities of the general assembly.** The general assembly has the following responsibilities:

(a) approves the articles of association, by-laws, rules, and regulations of the association;
(b) approves programs, forest management plans, annual operations plans, village forest management agreements, and other contracts including the use of funds by association;
(c) elects, suspends, and removes any member the policy and election committees except the village chief;
(d) receives and acts on the reports of the committees; and
(e) vetoes or modifies any decision of the policy committee.
Article 13. **General assembly meetings.** The general assembly meet at least ______ a year. Special general assembly meetings can be called at anytime by the policy committee to discuss urgent matters requiring immediate decision on the general assembly.

Article 14. **Quorum at the general assembly meetings.** In the regular or special general assembly meetings, _____% of the total number of members constitutes a quorum.

Article 15. **Policy committee.** The policy committee is the policy making body of the association composed of ______elected members. The village chief is an ex-officio member of the policy committee.

Article 16. **Responsibilities of the policy committee.** The policy committee has the following responsibilities:
(a) administers, oversees, and manages the programs and activities of the association;
(b) makes policies, rules, and regulations that are consistent with existing Lao PDR laws, articles of association, and by-laws of the association for approval by the general assembly;
(c) selects and replaces the officers of the policy committee from among its members; and
(d) appoints, suspends, and removes any member of any committees except the policy and election committees.

Article 17. **Officers and their duties.** The policy committee comprises the following officers: **Chairperson.** The chairperson shall:
(a) preside over all meetings of the association and the policy committee;
(b) sign official documents, appointments to positions, forest management plans, and other contracts which the general assembly authorizes him/her to sign; and
(c) perform other duties as authorized by the general assembly.

**Vice-chairperson.** In the absence or disability of the chairperson, the vice-chairperson undertakes the duties of the chairperson.

**Treasurer.** The treasurer shall:
(a) take care of all money and other financial documents of the association;
(b) keep a complete record of its cash transactions for the establishment and proof of the association’s cash situation;
(c) certify to the correctness of the association’s cash situation in all financial statements and records submitted to the policy committee, general assembly, or any external agencies as required by law;
(d) pay, upon recommendation of the manager or as authorized by the policy committee, all money transactions; and
(e) sit as a member of the management committee as its financial officer.

**Secretary.** The secretary shall:
(a) keep a complete list of members of the association and maintain a record of all meetings of the policy committee and general assembly;
(b) inform all members regarding meetings of the policy committee and general assembly;
(c) take care of the association’s official seal, records, and documents;
(d) sit as a member of the management committee as its administrative and clerical officer.
Article 18. Qualifications. Members (men and women) who have the necessary knowledge, skills, experiences, time and willingness to work are qualified to be voted as officers and members of the policy committee.

Article 19. Policy committee meetings. The policy committee meets at least _____ a month. Special meetings of the policy committee can be called by the chairperson or in his absence, by the vice-chairperson, or a majority of the policy committee members.

Article 20. Quorum at policy committee meetings. In the regular and special meetings of the policy committee, _____% of the total number of the committee constitutes a quorum.

Article 21. Management committee. The management committee is the implementing body of the association. It comprises a manager and a deputy manager, and supported by administrative and finance staff. The treasurer and secretary of the policy committee sit as members of the management committee.

Article 22. Responsibilities of the management committee. The management committee has the following responsibilities:
(a) implements the policies, by-laws, rules and regulations, forest management plan, village forest management agreements, and other contracts approved by the general assembly;
(b) directs, controls, supervises, implements, monitors and evaluates the day to day operations of the association; and
(c) hires, suspends, and removes any member of the working teams.

Article 23. Qualifications of the manager. Members (men or women) who have the necessary knowledge, skills, experience, time and willingness to work are qualified to be voted as manager and deputy, manager. Specifically, he/she should be:
(a) familiar with the business operations of the association;
(b) possess educational background and/or experience in managing a business; and
(c) willing to undergo training.

Article 24. Duties of the manager. The manager has the following duties:
(a) in-charge of all village forestry activities and business operations of the association;
(b) sit as a member of the policy committee;
(c) submit annual and regular financial statements and progress reports to the policy committee; and
(d) employ, supervise, and dismiss any persons working as management committee support staff or members of working teams in accordance with the rules prepared by the policy committee and approved by the general assembly.

Article 25. Election of officers. No person is elected as officer or member of committees unless he/she has the necessary qualifications. The election of officers and members of committees of the association is through a majority vote of the general assembly and by secret balloting. Each member has only one vote. Voting through a representative of a member is not allowed.

Article 26. Term of office. The officers and members of the policy and election committees serve for a term of ________ years unless earlier removed or withdrew or have
become incapacitated due to sickness or death. The term of office of the manager is indefinite. His/her removal is subject only to the decision of the policy committee.

**Article 27. Removal of officers and members of the policy and election committees.** Elected officers and members of the policy and election committees can be removed by a majority vote of the members of the association present at the regular or special general assembly. The successor serves the remaining term of office.

**Article 28. Vacancies.** When a vacancy in the policy and election committees occurs by reason of death, incapacity, withdrawal, or removal, the vacancy is filled by the remaining members of the policy and election committees as confirmed by the general assembly. The successor serves the remaining term of office.

**Article 29. Compensation.** The officers and members of committees and working teams are compensated out of the income generated by the association. The rate of compensation is approved by the general assembly.

**CHAPTER V Sharing of costs and benefits**

**Article 30. Sharing of costs and other inputs of village forestry.** Costs and other inputs of village forestry are fairly shared between the association and the state and among members of the association.

**Article 31. Sharing of benefits of village forestry.** Benefits of village forestry are shared between the organization and the state. Benefits are fairly shared among members of the association based on the amount of their actual involvement in the activities of the association.

**Article 32. Village forestry association (VFA) fund.** A village forestry association fund is established and managed by the association. Income generated through village forestry is deposited into the VFA fund.

**Article 33. Use of income.** The use of net income of the association is approved by the general assembly. Upon recommendation of the policy committee, the general assembly approves every year the allocation of funds to be used for the following purposes: (a) operating costs of the association including compensation; (b) reserve for future expenses in village forestry; (c) investments; (d) welfare support; (e) village development; and (f) others.

**CHAPTER VI Approval of the by-laws**

**Article 34. Approval of by-laws.** The general assembly approves the by-laws through a majority vote.
CHAPTER VII
Changes in the by-laws

Article 35. Amendments of by-laws. The general assembly approves changes to the by-laws through a majority vote.

Approved by the VFA general assembly on _____________ at Ban _____________

Signed by:

____________________________
VFA Chairperson

Attested by:

____________________________
Village Chief(s)

Note: In the case of a village cluster or group, all the village chiefs in the cluster or group sign and affix their seals.
Module 1.6.3
Forming the village forestry association

Introduction

This module is aimed at providing the participants with the knowledge and skills in (a) conducting a VFA membership campaign and registration, (b) constituting the VFA general assembly, (c) electing VFA officers, and (d) constituting the VFA policy and management committees.

Contents

The module consists of two lessons:

**Lesson 6.3.1 Constituting the VFA general assembly: VFA membership campaign and registration** - In this lesson, the participants learn how to conduct a VFA membership campaign and registration and how to constitute the VFA general assembly.

**Lesson 6.3.2 Constituting the VFA policy and management committees: Election of VFA officers** - The participants learn how to elect the VFA officers and how to constitute the VFA policy and management committees.
Lesson 1.6.3.1
Constituting the VFA general assembly:
VFA membership campaign and registration

Objective

At the end of the lesson the participants should be able to conduct a VFA membership campaign and registration and constitute the VFA general assembly.

Method

Lecture-discussion

Materials

Handout VFA membership registration form, stamp pad

Time

Two hours

Process

1. Based on the results of the discussions and agreements reached in modules 1.6.1 and 1.6.2, ask the participants to discuss the procedures for conducting the VFA membership campaign and for constituting the VFA general assembly using the following guide questions:

   - By whom and how will the VFA membership campaign and registration be conducted?
   - What is the procedure in constituting the VFA general assembly?

2. Summarize the important points of the discussion and give a brief lecture to fill the gaps in participants’ understanding using the learning notes.

Learning notes

By whom and how will the VFA membership campaign and registration be conducted?

Step 1 The village forestry core group prepares for the conduct of a VFA membership campaign. The VFCG meets to discuss the common messages and information that will be disseminated during the campaign. The VFCG agrees on the date(s), place and time of the VFA membership registration and informs the villagers accordingly.

Step 2 In collaboration with the nouay heads and village administration, the VFCG conducts a VFA membership campaign. The objective of the campaign is to encourage qualified villagers to join the association. The campaign may take a few days. VFCG members are assigned specific nouays and households to visit during the campaign.
Step 3 The VFCG prepares the materials needed for the VFA membership registration, i.e. VFA membership registration forms (see handout), stamp pad, etc.

Step 4 The VFCG organizes the VFA registration process. Before qualified villagers sign up for VFA membership, the VFCG ensures that: (a) they understand and support the VFA objectives, programs, and activities; (b) they are willing to undertake the responsibilities of a VFA member; and (c) they declare their intention to voluntarily apply for VFA membership. Thereafter, qualified villagers write down on the registration form the number and date of registration, name, gender, age and affix their signatures and/or thumb marks.

Step 5 As soon as the membership registration is completed, the village chief reviews and certifies the correctness of the information shown in the VFA registration forms and affixes his/her signature and official seal.

What is the procedure for constituting the VFA general assembly?

The village administration with the assistance of the VFCG convenes a meeting of all registered members of the VFA members to constitute the VFA general assembly.
Handout no. 1.6.3.1.1 - Sample of VFA membership registration form

Lao People’s Democratic Republic
Peace  Independence  Democracy  Unity  Prosperity

We, who are residents of Ban ______________________, District _____________________
Province ________________ and whose names and signatures/thumb marks are shown
below certify that:

We understand and support the objectives, programs, and activities of the
____________________ village forestry association;  and
We are willing to undertake the responsibilities as VFA members
and hereby voluntarily declare our intention to apply for membership to the association

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Certified by : ____________________________ _________________________

Village Chief Date
Lesson 1.6.3.2
Constituting the VFA policy and management committees: Election of VFA officers

Objective

At the end of the session, the participants should be able to elect VFA officers and constitute the VFA policy and management committees.

Method

Lecture-discussion

Time

Two hours

Process

1. Based on the results of the discussions and agreements reached in modules 1.6.1 and 1.6.2, ask the participants to discuss the procedures for electing VFA officers and constituting the VFA policy and management committees using the following guide questions:

   • What are the rules for electing VFA officers?
   • How will the VFA officers be elected? (VFA election procedures)
   • Who will elect VFA officers? (VFA general assembly)
   • Who will administer and supervise the election of VFA officers? (VFA election committee)
   • Who will constitute the election committee? (VFA general assembly)
   • What constitutes a quorum for electing VFA officers?

2. Summarize the important points of the discussion and give a brief lecture to fill the gaps in participants’ understanding using the learning notes.

Learning notes

What are the rules for electing VFA officers?

- Election of VFA officers is by secret balloting
- Each VFA member has only one vote (one member-one vote policy)
- A quorum based on the approved VFA by-laws is reached
- No VFA member is be allowed to vote by proxy
- The election of VFA officers is administered and supervised by the VFA election committee. The village administration oversees the election of VFA officers.
- The election of VFA officers is in accordance with the rules prepared by the VFA election committee and approved by the VFA general assembly and village administration
- No person is nominated, elected, or appointed as a VFA officer unless he/she possesses the necessary qualifications as agreed upon by the VFA general assembly
- The VFCG members are automatically considered as candidates
What are the procedures in electing the VFA officers and constituting the VFA policy and management committees?

**Step 1** The VFA general assembly constitutes a VFA election committee who will be responsible for administering the election of VFA officers.

**Step 2** The VFA election committee prepares the rules for electing the VFA officers to be approved by the VFA general assembly and village administration.

**Step 3** The VFA election committee determines the number of VFA officers to be elected based on the approved VFA by-laws. VFA members submit nominations to the VFA election committee. Only VFA members who possess the necessary qualifications can be nominated. The VFCG members are automatically considered as candidates except if they are already members of the VFA election committee.

**Step 4** The VFA election committee organizes the election process based on the rules approved by the VFA general assembly and village administration.

**Step 5** The VFA election committee reports the official election results to the VFA general assembly and village administration.

**Step 6** The village administration informs DAFO and the district authority of the names of the VFA officers.

**Step 7** The VFA chairperson convenes a meeting of all VFA officers to constitute the VFA policy committee and management committee.

**Note:** At this point the VFCG ceases to exist and turns over all responsibilities relating to village forestry to the new VFA officers.
Module 1.6.4
Requirements and procedures in securing VFA official recognition

Introduction

The module is aimed at providing the participants with an understanding of the rationale, importance, requirements and procedures for securing VFA official recognition from district and provincial authorities concerned.

Contents

The module consists of three lessons:

Lesson 1.6.4.1 Rationale and importance of securing VFA official recognition- In this lesson, the participants acquire an understanding of the rationale and importance of securing VFA official recognition.

Lesson 1.6.4.2 Requirements for securing VFA official recognition- The participants learn the requirements for securing VFA official recognition.

Lesson 1.6.4.3 Procedures for securing VFA official recognition- The participants learn the procedures for securing VFA official recognition from the district and provincial authorities concerned.
Lesson 1.6.4.1
Rationale and importance of securing VFA official recognition

Objective

At the end of the lesson, the participants should be able to discuss the rationale and importance of securing VFA official recognition.

Methods

Lecture-discussion

Time

45 minutes

Process

1. Ask the participants to discuss their own understanding of the rationale and importance of securing VFA official recognition.

2. Summarize the important points of the discussion and give a brief lecture to fill the gaps in participants’ understanding using the learning notes.

Learning notes

What is the rationale and importance of securing VFA official recognition?

Under existing Government laws, the villagers have *customary rights* to harvest timber and other forest products for their own use (i.e. construction of houses, village facilities, etc). But they do not have *management rights* to harvest timber and other forest products for sale. The *management rights* can only be acquired from the State through a village forest management contract. The requirements for signing a village forest management contract between the State and organized villagers are:

(a) formation of an organization for village forestry officially recognized by the State; and
(b) submission of a village forest management plan approved by the State.

The official recognition of VFAs gives the associations the personality to enter into contracts with the State (i.e. village forest management contracts) and with other parties (e.g. timber companies) concerned.
Lesson 1.6.4.2
Requirements for securing VFA official recognition

Objective

At the end of the lesson, the participants should be able to explain the requirements for securing VFA official recognition.

Method

Lecture-discussion

Time

45 minutes

Process

1. Discuss with the participants the requirements for securing VFA official recognition from the district and provincial authorities and give a brief lecture using the learning notes.

Learning notes

What are the requirements for securing VFA official recognition?

The requirements for securing VFA official recognition include:

(a) **Letter of Application** addressed to the Provincial Governor (through the District Chief, DAFO and PAFO), signed by the VFA chairperson, and endorsed by the village chief(s) concerned, the letter is a request for official recognition of the VFA.

(b) Four (4) copies of the **VFA Articles of Association** signed by the VFA chairperson and attested by the village chief(s) concerned. It includes the list of VFA officers and members as annexes.

(c) Four (4) copies of the **VFA By-laws** signed by the VFA chairperson and attested by the village chief(s) concerned. It includes the VFA organizational structure as annex.

(d) Four (4) copies of the **VFA Treasurer’s Certification** signed by the VFA treasurer and attested by the VFA chairperson and village chief(s) concerned.

**Note:** In the case of a village cluster or group, all the village chiefs in the cluster or group sign and affix their official seals.
Lesson 1.6.4.3
Procedures in securing VFA official recognition

Objective
At the end of the lesson, the participants should be able to explain the procedures in securing VFA official recognition from the district and provincial authorities.

Method
Lecture-discussion

Material
Handout on the procedures in securing VFA official recognition from the district and provincial authorities.

Time
One hour

Process
1. Discuss with the participants the procedures for securing VFA official recognition from district and provincial authorities using the learning notes and handout.

Learning notes
What are the procedures in securing VFA official recognition from the district and provincial authorities?

Village Level

Step 1 The VFA chairperson submits the application letter with four (4) copies of all the other requirements for securing VFA official recognition (see samples) to the Provincial Governor through the district chief, DAFO and PAFO.

District Level

Step 2 DAFO receives the letter of application for VFA official recognition and makes an approval sheet. DAFO forwards the letter of application together with the approval sheet to its Forestry Unit for review.

Step 3 DAFO Forestry Unit reviews the application.

Step 4 If the application is found to be in order, the Head of DAFO signs and affixes the official seal on the approval sheet and forwards the application to the district chief for endorsement to the Provincial Governor through PAFO. If not, DAFO returns the application to the VFA for revision.

Step 5 The district chief signs and affixes the official seal on the approval sheet and endorses the application to the Provincial Governor through PAFO.
**Provincial Level**

**Step 6** The Forestry Section receives the application and forwards it to its Forest Management Unit review.

**Step 7** The Forestry Section (Forest Management Unit) reviews the application. If it is found to be in order, the Head of Forestry Section and the PAFO Director sign and affix their official seals on the approval sheet and forward the application to the Provincial Governor for approval. If not the Forestry Section returns the application to the VFA through the DAFO for revision.

**Step 8** The Provincial Governor signs and affixes the official seal on the approval sheet and returns it to PAFO.

**Step 9** The Forestry Section enters important information in the VFA Registry for record and control purposes. The VFA registry contains:

(a) Official name of the VFA  
(b) VFA recognition number  
(c) Date of VFA recognition  
(d) Date of approval of VFA by-laws  
(e) Date of approval of VFA articles of association  
(f) Total number of VFA members  
(g) Total number of VFA officers  
(h) Name of VFA chairperson

**Step 10** PAFO sends copies of the approval sheet (together with the approved VFA articles of association and VFA by-laws) to VFA, DAFO, and DOF. Copies of these documents are kept at the Forestry Section.
Handout no. 1.6.4.3.1 - Flow chart on procedures for securing VFA official recognition

Village Forestry Association

The VFA Chairperson sends letter of application with 4 copies of all requirements for VFA recognition to the Provincial Governor through DAFO and District Chief

DAFO receives the application and forwards it to its Forestry Unit for review

DAFO Forestry Unit reviews the application

DAFO returns the application to the VFA for revision

No

Application in order?

Yes

Head of DAFO signs the approval sheet and the application to District Chief

PAFO Forestry Section receives the application and its Forest Management Unit reviews it

PAFO Forestry Section (Forest Management Unit) reviews the application

PAFO returns the application to DAFO for revision

No

Application in order?

Yes

District Chief signs the approval sheet and endorses the application to the Provincial Governor through PAFO

PAFO Forestry Section (Forest Management Unit) enters all relevant information into the VFA registry

PAFO sends copies of approval letter and VFA Articles of Association and By-Laws to:
1. VFA
2. DAFO
3. DOF
A copy is kept at PAFO

Forestry Section Head & PAFO Director sign the approval sheet and endorses it to the Provincial Governor for signature

Provincial Governor signs the approval sheet recognizing the VFA and returns it to PAFO

PAFO sends copies of approval letter and VFA Articles of Association and By-Laws to:
1. VFA
2. DAFO
3. DOF
A copy is kept at PAFO
Module 1.6.5
Writing the VFA articles of association and other requirements for VFA official recognition

Introduction

The module is aimed at providing the participants with knowledge and skills in writing the VFA application letter for VFA official recognition, writing VFA articles of association, and writing the VFA treasurer’s certification.

Contents

The module consists of three lessons:

Lesson 1.6.5.1 Writing the application letter for VFA official recognition- In this lesson, the participants acquire knowledge and skills in writing the application letter for VFA official recognition.

Lesson 1.6.5.2 Writing the VFA articles of association- The participants are provided with knowledge and skills in writing the VFA articles of association.

Lesson 1.6.5.3 Writing the VFA treasurer’s certification - The participants acquire knowledge and skills in writing the VFA treasurer’s certification.
Lesson 1.6.5.1
Writing the application letter for VFA official recognition

Objective

At the end of the lesson, the participants should be able to explain the contents and write the application letter for VFA official recognition.

Methods

Lecture discussion and guided group exercise

Material

Handout on sample letter of application for VFA official recognition

Time

45 minutes

Process

1. Discuss with the participants the format and contents of the application letter for VFA official recognition using the learning notes.

2. Form the participants into groups (e.g. by VFAs) and ask them to write their respective application letter for VFA official recognition.

3. Review the output of each group and make suggestions for improvements as needed.

Learning notes

What are the contents of the application letter for VFA official recognition?

- Legal reference for the formation and operations of VFAs
- Area (in hectares) and location of designated village forest
- Name of the VFA, village(s) covered and total number of members
- List of attachments (i.e. VFA by-laws, VFA articles of association, and VFA treasurer)
- Signatures of VFA chairperson and village chief(s) concerned
Handout no. 1.6.5.1.1. - Sample letter of application for VFA recognition

Lao People’s Democratic Republic
Peace Independence Democracy Unity Prosperity

Province of Savannakhet
District of Thapangtong
______________________Village Forestry Association  Ref. No. ____________

To: The Governor
Savannakhet Province
(Thru: The DAFO and District Chief of Thapangtong)

Subject: Request for Official Recognition of the ___________ VFA

• Based on the Constitution of Lao PDR of 1991, Article 31 on the Organization of Associations
• Based on the Decision No. 0429/MAF dated June 18, 1992 on the Duties and Rights in Managing Forestry Resources at Village Level
• Based on the Forestry Law of 1996

Note: Cite other relevant laws, legislations, rules and regulations as applicable

In order to sustainably manage _____ hectares of designated village forest in Dong Sithouane, Thapangtong, and to improve the socio-economic condition of villagers in Ban ________________;

Therefore, I, ________________ Chairperson of the ________________ VFA representing ________ members from Ban ______________, respectfully request that the ________________VFA be officially recognized by the Government.

Enclosed are the articles of association and by-laws of the ________VFA and the Treasurer’s Certification for your consideration and approval.

Sincerely yours,
Ban__________________, _________
(date)

Attested by: Signed by:

____________________________  __________________________
Village Chief(s) VFA Chairperson

Note: In the case of a village cluster or group, all the village chiefs in the cluster or group sign and affix their official seals.
Lesson 1.6.5.2
Writing the VFA articles of association

Objective

At the end of the lesson, the participants should be able to explain the contents and write the VFA articles of association.

Methods

Lecture discussion and guided group exercise

Material

Handout on sample VFA articles of association

Time

One hour

Process

1. Discuss with the participants the importance and contents of the VFA articles of association using the learning notes.

2. Form the participants into groups (e.g. by VFAs) and ask them to write their respective VFA articles of association.

3. Review the output of each group and make suggestions for improvements as needed.

Learning notes

What is a VFA articles of association?

It is a written document made by the village forestry association that provides basic information and a description of the association.

Why is a VFA articles of association important?

- It is a requirement for VFA official recognition
- It provides important information about the VFA
- It complements the VFA by-laws

Who prepares and ratifies the VFA articles of association?

It is prepared by the VFA policy committee and ratified by the VFA general assembly and attested by the village chiefs concerned.

Note: In the case of a village cluster or group, all the village chiefs in the cluster or group sign and affix their official seals.
What are the contents of the VFA articles of association?

The VFA articles of association contains the following:

- **Legal reference**- shows the existing Government laws and regulations that support the formation and operations of VFAs
- **Name of the association**- shows the official name of the association
- **Objectives**- enumerates the purposes for forming the association
- **Area of operation**- indicates the name of the village(s) where the VFA operates and implements village forestry activities
- **Terms of existence**- shows how long the VFA will exist and implement village forestry activities in the designated village forest areas
- **Membership**- explains the criteria for VFA membership
- **Names of VFA members**- shows the number and names of VFA members (annex A)
- **Names of VFA officers**- shows the number and names of VFA officers (annex B)
- **Signatures**- shows the signatures of the VFA chairperson and village chief(s) concerned
Handout no. 1.6.5.2.1 - Sample VFA articles of association

Lao People’s Democratic Republic
Peace Independence Democracy Unity Prosperity

Articles of Association of the _____________ Village Forestry Association

References:
2. Decision No. 0429/MAF dated June 18, 1992 on the Duties and Rights in Managing Forestry Resources at Village Level
3. The Forestry law of 1995

Note: Cite other relevant laws, legislations, rules and regulations as applicable

We, the undersigned, representing the residents of ban______________, district of __________, province of ______________________ have voluntarily organized ourselves under the existing laws of Lao PDR. and hereby certify:

CHAPTER I
Name of the association

That the name of this organization is the ________________ Village Forestry Association, hereinafter referred to as the “association.”

CHAPTER II
Objectives

That the objectives and purposes of the association are:
(a) to sustainably manage and protect designated village forest in partnership with state forestry agencies; and
(b) to improve the socio-economic condition of its members through fair sharing of costs, inputs, and benefits in the sustainable management of designated village forest.

CHAPTER III
Area of operation

That the area of operation of the association is in ban ________________, district of ____________, province of ______________________

CHAPTER IV
Term of existence

That the term of existence of this association is indefinite.
CHAPTER V
Membership

That the membership of the association is voluntary and open to men and women who are of legal age and are actually residing in the area of operation as defined in Chapter III hereof.

CHAPTER VI
Names of members

That the association is comprised of ____ members, who are all citizens of the Lao PDR and residents of ban__________, district of ________, province of ____________ and whose names are shown in annex A.

CHAPTER VII
Names of VFA officers

That the number of officers of the association is ____ who are all citizens of the Lao PDR and residents of ban______________, district of ____________ and province of _____________ and who are duly elected by the VFA general assembly as provided for in the by-laws. The names of the policy committee officers and members are shown in annex B.

Date: ____________

Signed by: Attested by:

____________________________ ____________________________
Village Chief(s) VFA Chairperson

Note: In the case of a village cluster or group, all villages in the cluster or group sign and affix their official seals.
Annex A

Names of VFA members
Annex B

Names of VFA officers
Lesson 1.6.5.3
Writing the VFA treasurer’s certification

Objective

At the end of the lesson, the participants should be able to explain the contents and write the VFA treasurer’s certification.

Methods

Lecture discussion and guided group exercise

Material

Handout on sample VFA treasurer’s certification

Time

45 minutes

Process

1. Discuss with the participants the importance and contents of the VFA treasurer’s certification using the learning notes.

2. Form the participants into groups (e.g. by VFAs) and ask them to write their respective VFA treasurer’s certification.

3. Review the output of each group and make suggestions for improvements as needed.

Learning notes

What is a VFA treasurer’s certification?

It is a document that shows the financial status of the association at the time of its application for VFA official recognition.

Who prepares the VFA treasurer’s certification?

It is prepared and signed by the VFA treasurer and attested by the VFA chairperson and village chief(s) concerned. Note: In the case of a village cluster or group, all the village chiefs in the cluster or group sign and affix their official seals.

When is a VFA treasurer’s certification prepared?

It is prepared when the association applies for VFA official recognition. Subsequently, financial statements are prepared and submitted to PAFO on a regular basis in lieu of the VFA treasurer’s certification.
Why is a VFA treasurer’s certification important?

- It reflects the financial status of the association at the time of its application for VFA official recognition. Later, this information can be useful as a basis in assessing the growth and stability of the association in terms of its financial resources.
- It helps promote transparency in the operations of the VFA.
- It is a requirement for VFA official recognition.

What are the contents of a VFA treasurer’s certification?

The VFA treasurer’s certification shows the present financial status of the association. It states the total amount received and kept by the VFA treasurer. It also describes the source(s) of funds such as payments of VFA membership fees, financial assistance from external sources, etc.
Handout no. 1.6.5.3.1 - Sample VFA Treasurer´s Certification

Lao People´s Democratic Republic
Peace Independence Democracy Unity Prosperity

Treasurer´s Certification

This is to certify that I, ________________________________ have been elected by the general assembly of _______________________________ VFA as its treasurer and that the total amount received and presently kept by me (in cash) is _______________________ kips. This amount represents payments of VFA membership fees (and funds from other sources, if any).

Signed by:
________________________________
VFA Treasurer
________________________________
Date

Attested by:
________________________________
VFA Chairperson
________________________________
Date
________________________________
Village Chief (s)
________________________________
Date

Note: In the case of a village cluster or group, all the village chiefs in the cluster or group sign and affix their official seals.

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Course 1.7
Formulating and adopting the rules and operating procedures of organizations for village forestry

Introduction

This course is aimed at strengthening the capacity of (a) PAFO trainers in training villagers in formulating the rules and operating procedures of organizations for village forestry; (b) DAFO extension workers in facilitating and providing technical assistance to villagers in formulating the rules and operating procedures of organizations for village forestry; and (c) villagers in formulating the rules and operating procedures of organizations for village forestry.

The lessons are designed to provide the participants with a better understanding of the importance and procedures for formulating and approving rules and operating procedures of organizations for village forestry (i.e. village forestry committee, village forestry association, inter-village forestry committee, Group of VFCs/VFAs, etc.). The participants acquire the knowledge and skills in writing the rules and operating procedures of organizations for village forestry.

Contents

The course is comprised of two modules:

Module 1.7.1  Formulating, approving, and amending the organization’s rules and operating procedures – In this module, the participants acquire a better understanding of (a) the decision making process in organizations for village forestry, and (b) the rationale and importance of the organization’s rules and operating procedures. The participants learn the procedures for formulating, approving, and amending the organization’s rules and operating procedures.

Module 1.7.2  Writing the organization’s rules and operating procedures - The participants are provided with the knowledge and skills in writing the organization’s rules and operating procedures.
Module 1.7.1
Formulating, approving, and amending the organization’s rules and operating procedures

Introduction

This module is aimed at providing the participants with a better understanding of (a) decision making in the organizations for village forestry, (b) rationale and importance of the organization’s rules and operating procedures, and (c) steps in formulating, approving, and amending the rules and operating procedures of the organization.

Contents

The module consists of three lessons:

Lesson 1.7.1.1  Introduction to decision-making- In this lesson, the participants acquire a better understanding of (a) the decision making process and its importance, (b) the different kinds of decisions, (c) the preconditions and procedures in decision making, and (d) the documentation of decisions of the organization.

Lesson 1.7.1.2- Rationale and importance of the organization’s rules and operating procedures- The participants learn the rationale and importance of the organization’s rules and operating procedures.

Lesson 1.7.1.3- Procedures for formulating, approving, and amending the organization’s rules and operating procedures- The participants learn the procedures for formulating, approving, and amending the organization’s rules and operating procedures.
Lesson 1.7.1.1
Introduction to decision making

Objectives

At the end of the lesson, the participants should be able to:
1. explain the process of decision-making and its importance;
2. describe the different kinds of decisions to be made;
3. explain the preconditions for decision making and the procedures in decision making; and
4. discuss the importance of documenting the decisions of the organization.

Method

Lecture-discussion

Time

Three hours

Process

1. Based on the actual practice and experiences in their respective villages, ask the participants to discuss their own understanding of the process of decision making using the following guide questions:

   • What is decision making?
   • Why is decision making important?
   • What are the different kinds of decisions?
   • What are the preconditions for decision making?
   • What are the procedures in decision making?

2. Ask the participants to discuss decision making in the organizations for village forestry using the following guide questions:

   • How are decisions made in the organization?
   • What are some examples of these decisions made in the organization?
   • Who makes these decisions in the organization?
   • How are the decisions of the organization documented?

3. Summarize the important points of the discussions and give a brief lecture using the learning notes.

Learning notes

What is decision making?

Decision-making is the process of defining problems, gathering information, generating alternatives, and choosing a course of action.
Why is decision making important?

- It is a basic element of the managerial functions of planning, organizing, leading, and controlling.
- It helps attain the goal(s) of an individual, group, or organization.

What are the different kinds of decisions?

Decisions may be classified as:

- **Routine decisions** - these are standard choices made in response to well-defined and well-known problems and alternative solutions. Decision makers often find these solutions in established rules and standard operating procedures.

- **Adaptive decisions** - these are choices made in response to a combination of unusual and only partially known problems and alternative solutions. Adaptive decisions often involve modifying and improving upon past routine decisions and practices.

- **Innovative decisions** - these are choices made based on the discovery, identification, and diagnosis of unusual and uncertain problems and the development of unique or creative alternative solutions.

What are the preconditions for decision-making?

Certain preconditions need to exist before a decision making process can be considered complete. These preconditions are met if all the following guide questions can be answered with a yes:

- Is there a gap between the present situation and the desired goals?
- Is the decision-maker aware of the significance of the gap?
- Is the decision-maker motivated to act and close the gap?
- Does the decision-maker have the resources to act to close the gap?

A problem is the factor that causes a gap between the desired condition and the actual situation.

What are the procedures in decision-making?

The procedures that decision makers can follow to help ensure that their decisions are logical and well founded are as follows:

**Step 1 Define and diagnose the problem** - If decision makers are unaware of the real problem and their causes, no effective decision making can occur. Essential to problem definition and diagnosis is asking numerous probing questions, e.g. the *who, when, where, how, and why* type of questions.

**Step 2 Set goals** - After the decision makers have defined a problem, they can set specific goals for solving it. (Goals are results to be attained. They indicate the direction in which decisions and actions should be aimed. They specify the quality or quantity of the desired results.) Under conditions of uncertainty, it is difficult to set precise goals. Individuals
may have to identify alternative goals, compare and evaluate them, and choose among them.

**Step 3 Identify alternative solutions**- Decision makers must look for alternative ways to achieve a goal. This step may involve seeking additional information, consulting others, etc. When there seems to be no feasible solution for attaining a goal, there may be a need to modify the goal.

**Step 4 Compare and evaluate alternative solutions**- After the decision makers have identified alternative solutions, they must compare and evaluate these alternatives. This step emphasizes forecasting expected results and determining the requirements or costs of each alternative.

**Step 5 Chose among alternative solutions**- Decision making is commonly associated with having made a final choice. Choosing a solution is only one step in the entire decision making process. Choosing among alternative solutions may prove to be difficult when a problem is complex and unclear and involves a high degree of risk or uncertainty.

**Step 6 Implement the solution selected**- A well-chosen solution is not always successful. A decision has to be accepted and supported by those responsible for implementing it if the decision is to be acted on effectively. If the selected solution cannot be implemented, another one should be considered.

**Step 7 Follow up and control**- Implementing the selected solution will not automatically achieve the desired goal. Individuals must control the implementation of selected solutions and follow up by evaluating results. If implementation is not producing satisfactory results, corrective action will be needed. Feedback from this step may even suggest the need to start over and repeat the entire decision making process.

**How are the decisions of the organization documented?**

Decisions of the organizations are documented in the form of rules, resolutions, guidelines, or minutes of meetings.

**Why is it necessary to document the organization’s decisions?**

- It guides the operations of the organization
- It contributes to the overall efficiency of operations of the organization
- It serves as the basis or inputs in establishing standard norms and operating procedures for the organization
- It is necessary for the continuity of the organization’s operations and serves as reference for new officers and members of the organization
- It can help avoid, minimize or resolve conflicts and misunderstanding amongst organization’s officers and members
Lesson 1.7.1.2
Rationale and importance of the organization’s rules and operating procedures

Objective

At the end of the lesson, the participants should be able to discuss the rationale and importance of the rules and operating procedures of organizations for village forestry.

Method

Lecture-discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

45 minutes

Process

1. Ask the participants to explain their own understanding of the organization’s rules and operating procedures and their importance.

2. Ask the participants to identify and discuss specific rules and procedures that they had formulated and adopted in their respective villages and explain their relevance to the village.

3. Summarize the important points of the discussions and give a brief lecture using the learning notes.

Learning notes

What is a rule?

A rule specifies a course of action that must be followed by the organization in dealing with a particular problem or situation.

What is an operating procedure?

An operating procedure is a series of rules that decision makers in an organization must follow in a particular sequence when dealing with a certain problem or situation. The larger and more complex the organization is, the more extensive are its rules and operating procedures.

Why are rules and operating procedures important?

• It helps to establish uniformity in decision making and actions taken by the organization
• It helps guide the decision makers of the organization in making routine decisions
• It specifies actions or steps to be taken by the organization to prevent or correct (eliminate) a particular well-defined problem and solution
• It spells out in more detail how the broad provisions of the organization’s approved by-laws, articles or associations, village forest management contract, village forest management plan and annual operations plans
• It minimizes or eliminates conflicts, confusion, and misunderstanding in the operations of the organization that helps contribute towards the attainment of the organization’s goals and objectives
Lesson 1.7.1.3
Procedures for formulating, approving, and amending the organization’s rules and operating procedures

Objectives
At the end of the lesson, the participants should be able to:
1. explain the procedures for formulating, approving, and amending the organization’s rules and operating procedures, and
2. identify and prioritize the organization’s rules and operating procedures.

Methods
Lecture-discussion and guided groupwork

Materials
Approved by-laws, village forest management contract, village forest management plan, annual operations plan, handout on sample format of a rule, large brown sheets of paper, marker, and masking tape

Time
Two hours

Process
1. Form the participants into groups (e.g. by village). Based on their own experience in their respective villages, ask the participants to discuss the procedures for formulating, approving and amending the rules and operating procedures of the organization.

2. Ask each group to review their respective organization’s approved by-laws, village forest management contract, village forest management plan, etc.

3. Based on the review, ask each group to identify the rules and operating procedures needed to implement the provisions of the approved by-laws, contracts, and plans.

4. Ask each group to prioritize and synchronize the formulation and approval of the organization’s rules and operating procedures based on the need to support the planned activities of the organization.

5. Ask each group to make a presentation of their outputs.

6. Summarize the group presentations and give a brief lecture using the learning notes.
Learning notes

What are the procedures for formulating, approving, and amending the organization’s rules and operating procedures?

Formulating the organization’s rules and operating procedures

Step 1. The organization reviews the provisions of their approved by-laws, village forest management contract, village forest management plan, and others. It identifies and prioritizes specific rules needed to implement said provisions. It prioritizes and synchronizes the formulation and approval of rules and operating procedures based on the need to support the implementation of planned activities of the organization.

Step 2 The organizations drafts its rules and operating procedures using a standard format (see handout on sample format of a rule).

Approving the organization’s rules and operating procedures

Step 3 The chairperson presents the draft rules and operating procedures of the organization to the members or villagers and the village administration for discussion and approval.

Step 4 As soon as the organization’s rules and operating procedures are approved by the members or villagers and the village administration, the date of approval is indicated and the Chairperson and the village chief affix their signatures and official seals. In the case of a village cluster or group, all the village chiefs in the cluster or group affix their signatures and official seals. For an inter-village forestry committee and a Group of VFCs/VFAs, the chairperson signs the rule and DAFO head attests. Thereafter, the organization’s rules and operating procedures become an integral part of the village rules.

Step 5 The secretary of the organization assigns a reference number to the rule (e.g. 001-00 which means that this is the first rule of the organization approved in year 2000), records the title of the approved rules in the organization’s record book and files the original copy in the registry of rules and operating procedures of the organization.

Step 6 The secretary posts on the village bulletin board the approved rules and operating procedures for information of the villagers.

Amending the organization’s rule and operating procedures

Step 7 Any member or officer of the organization can make a request for changes in an organization’s rules and operating procedures. The organization initiates a review of the proposed changes. A revised set of rules and operating procedures is presented to the members or villagers and village administration for discussion and approval. In the case of a village cluster or group, all the village chiefs in the cluster or group sign the revised rule and affix their official seals. For an inter-village forestry committee and a Group of VFCs/VFAs, the chairperson signs the revised rule and DAFO head attests. Repeat steps 4-6.
What are some examples of the organization’s rules and operating procedures needed in its operations?

- Membership (i.e. membership termination, suspension, removal, withdrawal, reinstatement, disciplinary action, education, training, merit and rewards system)
- Election of officers
- Officers (i.e. appointment, suspension, removal, and reinstatement of officers)
- Transparency of operations (i.e. inspection of records, internal audit and inventory of properties, posting of organization’s rules and other documentation for information of villagers)
- Sharing costs and benefits of village forestry between organization and the state and among members and other villagers
- Employment and compensation (e.g. standard rates of compensation)
- Establishment and management of funds (i.e. planning, budgeting, accounting, reporting and auditing)
- Use of funds (i.e. support operating costs, welfare support, village development, etc)
- Delegating authority to officers of the organization
- Contracting
- Meetings (i.e. quorum, frequency, minutes of meetings, etc.)
- Reporting
- Attendance of officers and members in training, conferences and meetings
- Conversion of village land uses
- Collection of non-timber forest products
- Grazing and hunting
- Forest fire protection and control
- Village forest management operations (for both mixed deciduous and dry dipterocarp forests)
- Harvesting of timber for household and village use
Handout no. 1.7.3.1.1 – Sample of a set of rules

Lao People’s Democratic Republic
Peace Independence Democracy Prosperity

(Name of the organization for village forestry)

(Rules reference number)
Rules no. ____________

(Title of the Rules)
Rules on ____________________________

(Reference to the by-laws of the organization for village forestry)
In accordance with Article __ Chapter __ of the by-laws of _____________ approved by the organization for village forestry and the village administration on ___________, the rules on _____________ are as follows:

(Article number. Title. Provision)
Article 1. Name and scope of the rules. The rules cover _______________________________

Article 2. Purpose of the rules. The purpose of the rules is to _______________________________

Article 3. Provision on ____. The organization shall _______________________

Article 4. Provision on ____. The organization shall _______________________

Article … Effectivity. These rules shall take effect on ____________.

(Date and place of approval)
Approved by the organization for village forestry and village assembly on _____________ at Ban ____________

(Name and signature of certifying officers and their official seals)

Signed by: Attested by:
_____________________________ _____________________________
Chairperson Village chief(s)/
Organization for village forestry DAFO head

Note: In the case of a village cluster or group, all the concerned village chiefs in the cluster or group affix their signatures and official seals. For a village forestry committee and a village forestry association, the chairperson signs and the village chief attests. For an inter-village forestry committee and a Group of VFCs/VFAs, the chairperson signs and DAFO head attests.
Module 1.7.2
Writing the organization’s rules and operating procedures

Introduction

This module is aimed at providing the participants with knowledge and skills in formulating some rules and operating procedures of the organization.

Contents

The module consists of ten lessons:

Lesson 1.7.2.1 Formulating the rules on establishment and management of fund
In this lesson, the participants acquire knowledge and skills in formulating the organization’s rules on establishment and management of the organization’s fund.

Lesson 1.7.2.2 Formulating the rules on delegation of authority
The participants are provided with knowledge and skills in formulating the rules on delegation of authority.

Lesson 1.7.2.3 Formulating the rules on membership
The participants gain knowledge and skills in formulating the rules on membership.

Lesson 1.7.2.4 Formulating the rules on employment and compensation
The participants are equipped with the knowledge and skills in formulating the rules on employment and compensation.

Lesson 1.7.2.5 Formulating the rules on use of revenue to support the operating costs for village forestry
The participants acquire knowledge and skills in formulating the rules on use of revenue to support the operating costs for village forestry.

Lesson 1.7.2.6 Formulating the rules on use of revenue for welfare support
The participants are provided with the knowledge and skills in formulating the rules on use of revenue for welfare support.

Lesson 1.7.2.7 Formulating the rules on use of revenue for village development
The participants gain knowledge and skills in formulating the rules on use of revenue for village development.

Lesson 1.7.2.8 Formulating the rules on use of revenue for investment
The participants acquire knowledge and skills in formulating the rules on use of revenue for investment.

Lesson 1.7.2.9 Formulating the rules on meetings
The participants are equipped with the knowledge and skills in formulating the rules on conducting meetings.

Lesson 1.7.2.10 Formulating the rules on reporting
The participants are provided with the knowledge and skills in formulating the rules on reporting.
Lesson 1.7.2.1
Formulating the rules on establishment and management of fund

Objective

At the end of the lesson, the participants should be able to discuss and formulate the rules on establishment and management of the organization’s fund.

Method

Lecture – discussion and group work

Materials

Approved by-laws of the organization
Sample format of a set of rules
Blank sheets of writing paper

Time

Two hours

Process

1. Form the participants into groups (e.g. by organization). Ask each group to review the provisions of their organization’s approved by-laws relating to fund establishment and management.

2. Ask each group to discuss the contents of the rules necessary to implement the provisions of the approved by-laws regarding the establishment and management of the organization’s fund using, among others, the following guide questions:

   **Rules on establishment of fund**

   - What is the purpose of establishing the fund?
   - What depository bank was chosen to open the bank account of the organization?
   - Under what name will the bank account be opened?
   - What kind of bank account will be opened for the organization’s fund (e.g. savings account)?
   - Who are the persons to be authorized to open the bank account?
   - Who are the authorized signatories of the bank account?
   - Who are authorized to deposit money into the bank account?
   - Who are authorized to withdraw money from the bank account?
   - What are procedures for establishing the organization’s fund?
Rules on management of the organization’s fund

- Who is authorized to keep money in the cash box in the village?
- Who is authorized to approve withdrawal of money from the bank account?
- What are the procedures for budgeting?
- Who will approve the budget of the organization?
- What are the procedures for payments?
- Who is authorized to approve payments (cash out)?
- Who is authorized to receive receipts (cash in)?
- What are the procedures for accounting?
- Who is authorized to keep the financial records of the organization (e.g. cash book, receipt book, bank book, deposit and withdrawal slips, payment vouchers, bank statements, etc.)?
- Who is authorized to sign monthly and annual financial statements of the organization?
- How will the members or villagers and the village administration be informed of the financial status of the organization? How often?
- What are the procedures for financial reporting?
- How will the financial transactions of the organization controlled and recorded?
- How will transparency in the organization’s financial transactions be ensured?

3. Ask the secretary of the organization to record the initial consensus reached during the discussion and use the results as input in writing the draft rules on establishment and management of fund following the sample format of a rules.

4. Ask the participants to discuss and reach agreement on the content of the draft rules on establishment and management of fund.

5. Facilitate and provide assistance as needed in the discussion and writing of the draft the rules on establishment and management of the organization’s fund.
Lesson 1.7.2.2
Formulating the rules on delegation of authority

Objectives

At the end of the lesson, the participant should be able to:
1. explain the process of delegation of authority and its importance, and
2. discuss and formulate the rules on delegation of authority.

Methods

Lecture-discussion and group work

Materials

Approved by-laws, annual work plan, sample format of a set of rules, blank sheets of writing paper

Time

Two hours

Process

1. Ask the participants to explain their own understanding of delegation of authority and its importance.

2. Form the participants into groups (e.g. by organization). Ask each group to discuss and review their organization’s by-laws and annual work plan.

3. Ask each group to identify the authority (not included in the approved by-laws and those required to effectively implement the annual work plan) to be delegated to the officers of the organizations using the guide questions in the learning notes.

4. Ask the secretary to record the initial consensus reached during the discussion and use the results as input in writing the draft rules on delegation of authority following the sample format of a rule.

5. Ask each group to discuss and reach agreement on the content of the draft rules on delegation of authority.

6. Summarize the group discussion and give a brief lecture using the learning notes.

7. Facilitate and provide necessary assistance as needed in the discussion and in writing the draft rules on delegation of authority.
What is an authority?

Authority is the right to make decisions and act. Authority is exercised, for example: (a) when the organization’s membership approves its by-laws; (b) when the chairperson signs the village forest management contract; and (c) when the manager hires villagers to work in the village forest inventory teams.

Authority implies **responsibility** and **accountability**. This means that by exercising authority, a person or group of persons accepts the responsibilities for acting and is willing to be held accountable for such action.

**Responsibility** is a person’s obligation to perform assigned tasks while **accountability** is the expectation that a person will accept credit or blame for results achieved in performing assigned tasks.

What is delegation of authority?

Delegation of authority is the process by which a person or a group of persons assigns the right to make decisions and act in certain areas to another person or group of persons. It starts when the structure of the organization is established and different tasks are divided and assigned to its officers or members. It continues as new tasks emerge during the operations of the organization.

The basic components of the process for delegating authority are:

- Determining the expected results
- Assigning the tasks, resources, and authority needed to accomplish the results
- Holding those to whom the tasks were assigned accountable for results achieved

Why is delegation of authority important?

- It contributes to the operational efficiency of a group or an organization.
- It facilitates decision making and action leading to the attainment of organizational goals.
- It facilitates the process of assigning tasks and pinpointing accountability.
- It reflects organizational growth and maturity.

What are some examples of authority that needs to be delegated?

**Negotiation and signing of contracts**

- Who is authorized to negotiate and sign contracts on behalf of the organization (e.g. village forest management contract, timber harvest and transport contracts, timber and other forest products sales contract)?
Establishment and administration of fund

- Who are authorized to open the bank account of the organization?
- Who are the authorized signatories of the bank account?
- Who are authorized to deposit money into the bank account?
- Who are authorized to approve withdrawal of money from the bank account?
- Who are authorized to approve payments (cash out)?
- Who are authorized to receive receipts (cash in)?
- Who are authorized to keep money in the cash box in the village?
- Who are authorized to withdraw money from the bank account?
- Who are authorized to keep the financial records of the organization?
- Who are authorized to sign monthly and annual financial statements of the organization?

Employment and compensation

- Who is authorized to appoint, hire, suspend and remove persons employed by the organization?
- Who is authorized to approve the rates of compensation for officers and village workers?
Lesson 1.7.2.3
Formulating the rules on membership

Objectives

At the end of the lesson, the participants should be able to
1. review the provisions of the approved by-laws relating to membership, and
2. discuss and formulate the rules on membership.

Methods

Lecture-discussion and group work

Materials

Approved by-laws, sample format of a set of rules, blank sheets of writing paper

Time

Two hours

Process

1. Form the participants into groups (e.g. by organization). Ask each group to
   review and discuss the provisions of their organization’s approved by-laws
   relating to membership.

2. Ask each group to discuss and reach consensus on how the provisions of the
   approved by-laws on membership can be implemented using the following guide
   questions:

   • How can membership to the organization be terminated (e.g. withdrawal,
     removal, or suspension)?
   • What is the difference between withdrawal, removal, and suspension?
   • What is the procedure when a member decides to withdraw his/her membership from the organization?
   • What are the reasons for removing a member from the organization?
   • What is the procedure in removing a member from the organization?
   • Who is authorized to remove a member from the organization?
   • What is the procedure for reinstating a removed member?
   • What are the requirements for reinstating a removed member?
   • Who approves the reinstatement of a removed member?
   • What are the reasons for suspending a member?
   • What is the procedure for suspending a member?
   • What is the procedure for reinstating a suspended member?
   • What are the requirements for reinstating a suspended member?
   • Who approves the reinstatement of a suspended membership?
3. Ask the secretary to record the initial consensus reached during the discussion and use this as input in writing the draft rules on membership following the sample format of a set of rules.

4. Facilitate and provide assistance as needed in the discussion and in writing of the draft rules on membership.
Lesson 1.7.2.4
Formulating the rules on employment and compensation

Objectives

At the end of the lesson, the participants should be able to:
1. review the provisions of the approved by-laws and requirements of the approved annual work plan relating to employment and compensation, and
2. discuss and formulate the rules on employment and compensation.

Methods

Lecture-discussion and group work

Materials

Approved by-laws, annual work plan and budget, sample format of a set of rules, blank sheets of writing paper

Time

Three hours

Process

1. Form the participants into groups (e.g. by organization). Ask each group to review the provisions of their approved by-laws and the annual work plan relating to employment and compensation.

2. Summarize the results of the review using the following table:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Proposed number of persons to be employed</th>
<th>Suggested compensation rate (in kips)</th>
<th>Mode of compensation payment</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tree marking</td>
<td>14</td>
<td>5,000/day</td>
<td>Daily</td>
<td>2 teams x 7 persons/team x 24 days</td>
</tr>
<tr>
<td>2. Pre-harvest inventory</td>
<td></td>
<td>21,000/ha</td>
<td>Contract</td>
<td>Total target 218 ha</td>
</tr>
<tr>
<td>3. Forest fire management</td>
<td>4</td>
<td>30,000/mo</td>
<td>Monthly</td>
<td>Total target area ___ ha x 4 months</td>
</tr>
</tbody>
</table>

Table _.
Summary of annual employment and compensation
for ____________________________________________
(Name of organization)
3. Based on the above review, ask each group to discuss and reach initial consensus on how to implement the provisions of the approved by-laws and annual work plan relating to employment and compensation using the following guide questions:

**Employment**

- Will members be given priority for employment in the organization?
- Under what conditions can a non-member avail of employment in the organization?
- What are the qualifications of persons who can be employed in the organization (e.g. knowledge, skills, experience, age, gender, socio-economic status)?
- How do you ensure that the provision of employment is equitable or fair?
- Who is authorized to appoint, hire, suspend, or remove persons employed in the organization?
- What is the organization’s policy on employment of women?

**Compensation**

- Who approves the compensation rates for officers, supervisors and workers?
- What will be the basis for compensation? (e.g. work, skills, or both)
  Will compensation be based on work? This means that compensation is linked to the specific tasks a person performs: the harder the work, the higher the rate of compensation. Will compensation be based on skills? This means that compensation is linked to the skills, knowledge and experience a person has: the more knowledgeable, skilled and experienced a person, the higher the rate of compensation. Will compensation be based both on work and skills?
- Will the rates of compensation of supervisors and workers of teams within an organization be the same or different (supervisors and workers in the village inventory team, access trail clearing team, tree marking team, forest fire team, NTFP team, etc.)? Will the compensation rates be based on the work, skills, or both?
- How will a person who does more than one work component be compensated? Will he/she be compensated more?
- What is the rate of compensation (daily allowance) that will be provided to officers or members who attend meetings and training outside the village?
- Will the rates of compensation between organizations be the same or different (e.g. chairpersons, managers and other officers, supervisors, team workers)? Why?
- Will the compensation rate be approved by the Government (e.g. district administration, DAFO or PAFO)?
- How does one ensure that the compensation rates are equitable or fair?
- How will the compensation be paid? (e.g. on a daily basis, monthly, lump-sum based on completion of contracted work, attendance in meetings, etc.)
• How will income of persons employed in the organization be monitored, how will transparency be ensured?
• How will the persons who were earlier employed (e.g. forest inventory teams) and others who will be employed before actual income is generated by the organization be compensated (e.g. deferred payment)? Is there a record of such employment? Who keeps such record? What rate of compensation will be used, the original agreed rate at the time of employment or the new agreed rate of compensation? Is this amount budgeted in the approved annual work plan?
Lesson 1.7.2.5
Formulating the rules on use of revenue to support operating costs for village forestry

Objective

At the end of the lesson, the participants should be able to discuss and formulate the rules on the use of revenue to support operating costs for village forestry.

Methods

Lecture-discussion and group work

Materials

Approved by-laws, annual workplan, sample format of a rule, blank sheets of writing paper

Time

Three hours

Process

1. Form the participants into groups (by organization). Ask each group to discuss and review the provision of their approved by-laws relating to the use of revenue.
2. Ask each group to discuss and review their approved annual workplan with emphasis on the activities and the financial resources needed to implement such activities.
3. Based on the above discussion and review, ask each group to discuss and reach initial consensus on how to effectively implement the provisions of the approved by-laws on use of revenue to support the operating costs for village forestry using the following guide questions:
   • How much priority is given to the use of revenue to support operating costs for village forestry? Why?
   • What are the operating costs for village forestry that will be supported out of the revenue of the organization?
   • What are the criteria for supporting the operating costs for village forestry?
4. Ask the secretary to record the initial consensus reached during the discussion and use this as input in writing the draft rules on the use of revenue to support operating costs for village forestry.
5. Facilitate and provide assistance as needed in the discussion and writing of the draft the rules on use of revenue to support the operating costs for village forestry.
Lesson 1.7.2.6
Formulating the rules on use of revenue for welfare support

Objective

At the end of the lesson, the participants should be able to discuss and formulate the rules on use of revenue for welfare support.

Methods

Lecture-discussion and group work

Materials

Approved by-laws, sample format of rule, blank sheets of writing paper, large brown sheets of paper, markers, and musking tape

Time

Three hours

Process

1. Form the participants into groups (e.g. by organization). Ask each group to review the provisions of their approved by-laws regarding the use of revenue

2. Ask each group to discuss their own understanding of welfare support. Ask them to discuss their existing village rules or practices on welfare support. Ask each group to list (write down) on the large brown paper the circumstances (e.g. death, accident, sickness, natural calamities, etc.) under which a villager qualifies for welfare support to villagers.

3. Based on the above discussion and review, ask each group to discuss and reach initial consensus on how to implement the provisions of their approved by-laws on the use of revenue for welfare support using the following guide questions:

   • Who can qualify for welfare support? Will priority be given to members? Will non-members qualify for welfare support? If yes, under what circumstances can non-members qualify for welfare support? Who will evaluate whether a member or non-member qualifies for welfare support?
   • What will be the criteria used in evaluating requests for welfare support?
   • Will the amount of welfare support be the same for all circumstances (i.e. village forestry work related or non-work related death and accidents, sickness, natural calamities), for rich and poor members or non-members?
   • Will the amount of welfare support be standardized (permanently or yearly)? Will it be on a case-by-case basis? Who will decide on the amount of welfare support?
• Who will approve the amount or rate of welfare support?
• What will be the basis for the rate or amount of welfare support (e.g. availability of funds)?
• How will it be ensured that the provision of welfare support is fair in both single village and village clusters or groups?
• How will it be ensured that the provision of welfare support is transparent? Will the names of the recipients of welfare support be posted in the village bulletin board or included in reports to be presented to the members or villagers and village assembly?
• Can a member or non-member be a recipient of more than one type of welfare support in a year?
• What is the step-by-step procedure in applying for welfare support?

4. Ask the secretary to record the initial consensus reached during the discussion and use this as input in writing the draft rules on use of revenue for welfare support.

5. Ask the participants to discuss and reach agreement on the content of the draft rules on use of revenue for welfare support.

6. Facilitate and provide assistance as needed in the discussion and writing of the draft rules on use of revenue for welfare support.
Lesson 1.7.2.7
Formulating the rules on use of revenue for village development

Objective

At the end of the lesson, the participants should be able to discuss and formulate the rules on the use of revenue for village development.

Methods

Lecture-discussion and groupwork

Materials

Approved by-laws, sample format of a rule, blank sheets of paper, large brown sheets of paper, marker, and masking tape

Time

Three hours

Process

1. Form the participants into groups (e.g. by organization). Ask each group to discuss and review the provisions of their approved by-laws relating the use of revenue for village development.

2. Ask each group to discuss their own understanding of village development and its importance. Ask them to discuss existing village rules or plans relating to village development (if any).

3. Based on the above discussion and review, ask each group to discuss and reach initial consensus on how to implement the provisions of their approved by-laws on the use of revenue for village development using the following guide questions:

   • What are the criteria and procedures in identifying, evaluating, and selecting village development projects/activities to be funded out of the organization’s revenue?
   • How will village development projects/activities be prioritized or ranked?
   • Who will be responsible for planning village development projects/activities?
   • Who will be responsible for evaluating and approving village development projects/activities?
   • Who will be responsible for implementing and managing village development projects/activities?
• What is the procedure for planning, implementing, and managing village development projects/activities?
• How will these village development projects be coordinated with the overall village development program of the district?
• What are the kinds of assistance or support relating to village development that are needed from external sources (technical expertise, training, etc.)?

4. Ask the secretary to record the initial consensus reached during the discussion and use this as input in writing the draft rules on the use of revenue for village development.

5. Ask the participants to discuss and reach agreement on the content of the draft rules on use of revenue for village development.

6. Facilitate and provide assistance as needed in the discussion and writing of the draft rules on use of revenue for village development.
Lesson 1.7.2.8
Formulating the rules on use of revenue for investment

Objective
At the end of the lesson, the participants should be able to discuss and formulate the rules on use of revenue for investment.

Methods
Lecture-discussion and group work

Materials
Approved by-laws, sample format of a rule, blank sheets of writing paper

Time
One hour

Process
1. Form the participants into groups (e.g. by organization). Ask each group to discuss and review the provision of the approved by-laws relating to the use of revenue for investments.

2. Ask the participants to discuss their own understanding of investments and their importance or advantages.

3. Summarize the discussion and give a brief lecture using the learning notes.

4. Based on the above, ask each group to discuss and reach initial consensus on how to implement the provision of their approved by-laws on use of revenue for investment using the following guide questions:
   - How much priority is given to the use of revenue for investment? Why?
   - What are the conditions in using the revenue for investment?
   - How and who will identify, evaluate, and approve the investments to be supported by the revenue of the organization?

5. Record the initial consensus reached during the discussion and use this as input in writing the draft the rules on use of revenue for investments.

6. Ask the participants to discuss and reach agreement on the content of the draft rules on use of revenue for investments.

7. Facilitate and provide assistance as needed in the discussion and writing of the draft rules on use of revenue for investments.
Lesson 1.7.2.9
Formulating the rules on meetings

Objective

At the end of the lesson, the participants should be able to discuss and formulate the rules on meetings.

Methods

Lecture-discussion and group work

Materials

Approved by-laws, sample format of a rule, and blank sheets of paper

Time

One hour

Process

1. Form the participants into groups (e.g. by organization). Ask each group to discuss and review the provisions of their approved by-laws relating to meetings.

2. Ask each group to discuss and reach initial consensus on how to effectively implement the provisions of their approved by-laws regarding meetings using the following guide questions:

- How often will the organization meet in a month/year?
- Is it useful to fix the date(s) of the regular meetings of the organization (e.g. every last Friday of the month, last Sunday of the quarter)? Why or why not?
- How often will the organization hold special meetings?
- Who and how will notices of meetings be administered?
- What is the period of notification for meetings?
- Who presides over the meetings of the organization?
- Who prepares and keeps the minutes of meetings?
- What constitutes a quorum in meetings?
- How will it be ensured that every meeting has the required quorum?
- In the case of a village cluster or group, will the venue of meetings be fixed or rotational?
- Will non-members be allowed to attend or observe the meetings of the organization? If so, what (if any) are the conditions?
- How will it be ensured that the members are aware of the discussions and agreements made during meetings (reading of minutes of previous meeting, posting the minutes of meetings at the village bulletin board, etc.)?
• What actions will be taken on members who do not attend meetings?
• In a household where there are more than one member, can a member represent the entire membership in a household? Under what circumstances should all members attend the meeting of the organization?

3. Record the initial consensus reached during the discussion and use this as input in writing the draft rules on meetings.

4. Facilitate and provide assistance in the discussion and writing of the draft rules on meetings.

5. Ask the participants to discuss and reach agreement on the content of the draft rules on meetings.
Lesson 1.7.2.10
Formulating the rules on reporting

Objective

At the end of the lesson, the participants should be able to discuss and formulate the rules on reporting.

Methods

Lecture-discussion and group work

Materials

Approved by-laws, village forest management contract, sample format of a rule, and blank sheets of paper

Time

One hour

Process

1. Form the participants into groups (e.g. by organization). Ask each group to review and discuss the provisions of their approved by-laws on reporting.

2. Ask each group to discuss and reach initial consensus on how to implement the provisions of their approved by-laws on reporting using the following guide questions:

   Internal reporting (within the organization)

   • What kinds of reports will be prepared (written or verbal)?
   • What will these reports contain?
   • Who will be responsible for preparing these reports?
   • For whom will these reports be prepared and presented?
   • When or how often will these reports be prepared and presented?
   • How will it be ensured that members are informed of these reports?
   • What is the procedure for internal reporting?

3. Record the initial consensus reached during the discussion and use this as input in writing the draft rules on reporting.

4. Facilitate and provide assistance in the discussion and writing of the draft rules on reporting.

5. Ask the participants to discuss and reach agreement on the content of the draft rules on reporting.

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Course 1.8
Managing the records of the organization for village forestry

Introduction

This course is aimed at strengthening the capabilities of: (a) PAFO trainers in training villagers in managing the records of the organization, (b) DAFO extension workers in facilitating and providing technical assistance to villagers in managing the records of the organization, and (c) villagers in managing the records of the organization.

The lessons are designed to introduce the participants to records keeping and provide them with simple guidelines and procedures in managing the records of the organization.

Contents

The course consists of two modules:

Module 1.8.1  Understanding records keeping - In this module, the participants learn about records keeping and its importance.

Module 1.8.2  Keeping the records of the organization - The participants acquire the knowledge and skills in keeping the records of the organization.
Module 1.8.1
Understanding records keeping

Introduction

This module is aimed at providing the participants with a better understanding of records keeping and its importance.

Contents

The module consists of two lessons:

Lesson 1.8.1.1 Introduction to records keeping - In this lesson, the participants acquire a better understanding of records and records keeping.

Lesson 1.8.1.2 Importance of records keeping - The participants learn the importance of records keeping.
Lesson 1.8.1.1
Introduction to records keeping

Objective

At the end of the lesson, the participants should be able to explain what records keeping is.

Methods

Lecture-discussion

Materials

Large brown sheets of paper, markers, and masking tape

Time

45 minutes

Process

1. Ask the participants to explain their own understanding of records keeping.

2. Ask the participants to discuss how they presently keep the records of the village, in general, and the records of the organization, in particular.

3. Summarize the important points of the discussion and give a brief lecture using the learning notes.

Learning notes

What is a record?

A record consists of all information and documentation pertaining to a village, an organization, or a group and its activities.

What is records keeping?

Records keeping involves a set of procedures for recording, sorting, filing, retrieving, monitoring, storing, and maintaining all information and documentation relating to a village, an organization, or a group, and its activities.
Lesson 1.8.1.2
Importance of records keeping

Objective

At the end of the lesson, the participants should be able to explain the importance of records keeping.

Methods

Lecture-discussion

Time

30 minutes

Process

1. Ask the participants to explain their own understanding of the importance of records keeping.

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

Learning notes

Why is records keeping important?

- It provides information needed for making decisions, planning, implementing, monitoring, evaluating and reporting the activities of a village, an organization, or a group.
- It contributes to the overall efficiency of operations of a village, an organization, or a group.
- It reflects the growth and accomplishment of a village, an organization, or a group through time and its officers and members can take pride with this knowledge.
- It helps a village, an organization, or a group to remember important information, events, and activities.
- It is necessary for the continuity of operations particularly when there are changes in the leadership of a village, an organization, or a group. It serves as future reference for new officers and members of a village, an organization, or a group.
Module 1.8.2
Keeping the records of the organization

Introduction

This module is aimed at providing the participants with knowledge and skills in keeping the records of the organization. The participants learn how to (a) inventory and assess existing records of the organization, (b) classify and sort the records of the organization, and (c) file, store, and maintain the records of the organization.

Contents

The module consists of four lessons:

**Lesson 1.8.2.1 Guidelines and procedures for records keeping** - In this lesson, the participants learn the guidelines and procedures for keeping the records of the organization.

**Lesson 1.8.2.2 Inventory and assessment of existing records** - The participants acquire knowledge and skills in conducting an inventory and assessment of existing records of the organization.

**Lesson 1.8.2.3 Classifying and sorting the records** - The participants learn how to classify and sort the records of the organization.

**Lesson 1.8.2.4 Filing, storing, and maintaining the records** - The participants are provided the knowledge and skills in filing, storing, and maintaining the records of the organization.
Lesson 1.8.2.1
Guidelines and procedures for records keeping

Objective
At the end of the lesson, the participants should be able to discuss the guidelines and procedures for keeping the records of the organization.

Methods
Lecture-discussion and group work

Materials
Existing records of the organization

Time
One hour

Process
1. Group the participants by organization. Ask each group to discuss their own guidelines and procedures for keeping the records of the organization.

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

Learning notes

What are the guidelines for keeping the records of the organization?

• Records keeping should be able to provide adequate and timely information needed by the organization for decision-making, planning, implementation, monitoring, evaluating and reporting of the organization’s activities.

• Records should be simple so that members can easily understand them. Well-informed members are likely to make better decisions than those members who are misinformed.

• There should be access and transparency of records to members.

• The procedures for recording, sorting, filing, retrieving, monitoring, storing, and maintaining the organization’s records should be simple and adapted to the situation in the village.

• There should be designated persons responsible and accountable for keeping the records of the organization.
Who is responsible for keeping the records of the organization?

The secretary is responsible for recording, sorting, filing, retrieving, monitoring, storing, and maintaining all non-financial records of the organization. The bookkeeper handles all financial records of the organization. The records are checked and reviewed regularly by the organization to assess problems encountered and initiate remedial measures. The review also aims to determine active or inactive (dead) files.

What is the procedure for records keeping?

If VFCG have not handed over the records to the organization for village forestry

Step 1. The VFCG hands-over all existing records relating to village forestry to the secretary of the organization.

If VFCG has already handed over the records to the organization for village forestry

Step 2. The secretary makes a complete listing and assessment (inventory) of the condition and status of all existing records of the organization.

Step 3. The secretary classifies and sorts the records according to the category selected by the organization. Specific codes (e.g. numbers or letters) or any other symbols selected by the organization are assigned to each of the individual files.

Step 4. The secretary records the information of all documentation (including categories and codes) into a records book for information and control purposes.

Step 5. The secretary maintains a record book for all incoming and outgoing documentation for information and control purposes.

Step 6. The secretary updates the records book regularly and submit reports to the organization.

Step 7. The secretary files and stores the records in a filing cabinet in order to protect them against damage or loss.
Lesson 1.8.2.2
Inventory and assessment of existing records

Objective
At the end of the lesson, the participants should be able to inventory and assess the condition of existing records of the organization.

Methods
Lecture-discussion and group work

Materials
Existing records of the organization and handout on sample form for inventory and assessment of existing records

Time
Two hours

Process
1. Group the participants (e.g. by organization) and ask them to discuss the existing records using the following guide questions:
   - Was there a proper hand-over of all records, tools, materials, etc., from the VFCG to the organization? If yes, please explain the process. If no, the process should be initiated as soon as possible.
   - Who is presently keeping the records of the organization?
   - How are the records presently kept?
   - What are the problems encountered in keeping the organization’s records?
   - What are the recommendations in improving records keeping?

2. Ask each group to identify and make a complete listing of all existing records of the organization and assess their condition. Ask each group to discuss and select their own assessment criteria to describe the condition of the records (e.g. good, incomplete, damaged, lost/misplaced, etc.). See handout for sample form in listing and assessing existing records of the organization:
Handout no. 1.8.2.2.1 - Sample of a records inventory and assessment form

Name of organization for village forestry: ________________________________

As of __________________________ (date)

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>By-laws</td>
<td>Good</td>
</tr>
<tr>
<td>2</td>
<td>Village land use map</td>
<td>Damaged</td>
</tr>
<tr>
<td>3</td>
<td>Annual operations plan 1998-1999</td>
<td>Lost/misplaced</td>
</tr>
</tbody>
</table>

Prepared by: ________________________________ Date: ______________

Secretary
Organization for village forestry
Lesson 1.8.2.3
Classifying and sorting the records

Objective

At the end of the lesson, the participants should be able to discuss the importance and procedures for classifying and sorting the records of the organization.

Methods

Lecture-discussion, demonstration and group work

Materials

List of records (output of lesson 1.8.2.2), record books, and handout on sample categories and codes used in classifying the records of organizations for village forestry

Time

Two hours

Process

1. Group the participants (e.g. by organization). Based on the list of existing documentation produced in lesson 1.8.2.2, ask each group to discuss how they will classify and sort their records using the following guide questions:

   • Why is it important to classify and sort the organization’s records?
   • How do you want to classify and sort the records of the organization?
   • What categories, codes, or symbols do you want to use in classifying and sorting the records of the organization?

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

3. Ask each group to classify and sort their records according to the categories they selected and assign specific codes or symbols to each of the files (see handout).

4. Ask each group to record in a book all documentation according to their categories, codes or symbols.

Learning notes

Why is it important to classify and sort the records of the organization?

   • It puts order into the records of the organization.
   • It facilitates easy and quick access and retrieval of records.
It facilitates the filing, monitoring, maintenance, and inventory of records.

It contributes to the operational efficiency of the organization, i.e. decision making, planning, implementation, reporting, monitoring, and evaluation.

It will be easy for future officers to familiarize and handle the records.

What are the procedures for classifying and sorting the records of the organization?

Step 1  Review the list of existing records of the organization and determine the categories or groupings of records to be used. Categories can be based on similarity and relationships of records. (See handout on sample list of categories and codes used in classifying the records of organizations for village forestry.)

Step 2  Classify, sort and arrange list of records according to the selected categories. Determine specific codes or symbols that can be assigned to individual files under each category of records.

Step 3  Assign specific code or symbol to each of the files.

Note: the categories, codes, or symbols for records change through time as new records emerge.

Step 4  Enter in a book (not on a loose sheet of paper) the titles of the record with their corresponding categories and file codes and symbols. Update the record book as needed.
Handout no. 1.8.2.3.1 - Sample categories and codes used in classifying the records of organizations for village forestry

A  Plans
A1 Village land-use plan
A2 Village forest management plan
A3 Annual operations plan
A4 Annual work plan
A5 District village forestry master plan

B  Contracts
B1 Village forest management contract
B2 Timber or NTFP sales contract
B3 Timber harvest and transport contract
B4 Village boundary agreement
B5 Group membership agreement

C  Laws, rules, and regulations
C1 By-laws and articles of association
C2 Rules on employment and compensation
C3 Village rules on timber harvesting for household and village use
C4 Village rules on NTFP collection
C5 Forestry Law 1996

D  Registry
D1 Land registry
D2 Registry of officers and members of the organization
D3 Registry of current village forest management areas (e.g. name, number, area, location)
D4 Registry of annual production and sales of timber/NTFP by volume and species by year
D5 Registry of contractors
D6 Registry of current forestry legislation
D7 Registry of related agencies including name and address of contact persons
D8 Registry of internal and external inspection or visit by officials and staff
D9 Registry of customary tree right holders
D10 Registry of training
D11 Registry of logs at second landing
D12 Registry of seedling production and planting

E  Reports
E1 PRA reports (i.e. village profile, wealth ranking, seasonal calendar, Venn diagram, etc.)
E2 Forest inventory reports
E3 Pre-harvest forest inventory report
E4 Tree marking report
E5 Post harvest assessment report
E6 Annual and monthly progress reports
F  Minutes of meetings
  F1  Minutes of meetings of the organization

G  Letters and correspondences
  G1  Incoming and outgoing correspondences

H  Maps, photographs, and charts
  H1  Village land use map
  H2  Village forest management map
  H3  Village cadastral map
  H4  Social map
  H5  Census map
  H6  Aerial photographs of a state production forest or other forest categories
  H7  Village boundary map
  H8  Forest nursery map
  H9  Agro-forestry farm map
  H10 Village forest plantation map
  H11 Map of NTFP collection sites
  H12 Forest fire protection and control map
  H13 Organizational chart

L  Licenses and permits
  L1  Copies of licenses and permits

J  Payments of royalty and other taxes
  J1  Documentation of payment of royalties
  J2  Documentation for payment of other taxes

K  Miscellaneous
  K1  Visitors logbook
  K2  Photos

Notes:

The organizations for village forestry use or establish only the codes and categories of records that are applicable to their activities and operations in a production forest, protection forest, conservation forest, rehabilitation/degraded forest, or barren forest land.

In the case of an inter-village forestry committee or a Group of VFCs/VFAs, the format of the above codes (as applicable) may be changed as follows: codes followed by a dash sign “-“ and the designated number of the VFC/VFA or item. For example: A2-1 stands for the village forest management plan of Khokteuleu. D11-2 stands for log registry at second landing number 2. See sample list of some VFA numbers and names in Thapangtong district.

Specific categories of records such as plans, registry, payment of royalties and taxes, etc., are requirements of forest management certification).
Sample list of some VFA numbers and names in Thapangtong District

<table>
<thead>
<tr>
<th>VFA No.</th>
<th>Name of VFA</th>
<th>Villages covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Khokkhanapheuvieingkham</td>
<td>Khoktheuleu, Napheu, Nalavieng, Nachanthang</td>
</tr>
<tr>
<td>2</td>
<td>Hintang houamphathana</td>
<td>Hintangkhok, Hintangkang, Nakhagnom</td>
</tr>
<tr>
<td>3</td>
<td>Nonsawanghoungheuang</td>
<td>Nonsawang</td>
</tr>
<tr>
<td>4</td>
<td>Khiaosotkhoumkham</td>
<td>Bakkhoumkham</td>
</tr>
<tr>
<td>5</td>
<td>Thaphipathana</td>
<td>Thaphi</td>
</tr>
<tr>
<td>6</td>
<td>Khiaosomboun</td>
<td>Nathammou, Natang-neua</td>
</tr>
</tbody>
</table>
Lesson 1.8.2.4
Filing, storing, and maintaining the records

Objective

At the end of the lesson, the participants should be able to discuss the procedures for filing, storing, and maintaining the records of the organization.

Methods

Lecture-discussion, demonstration, practicum, and guided group work

Materials

Listing of records with categories and codes (output of lesson 1.8.2.3), existing records, folders, puncher, fastener, stapler, marker, record book

Time

Two hours

Process

1. Ask the participants to discuss their own understanding of how to file, sort, and maintain the records of the organization.

2. Summarize the discussion and give a brief lecture using the learning notes.

3. Based on the output of lesson 1.8.2.3, ask each group to sort the organization’s records according to the selected categories.

4. Ask each group to mark or place a label on each of the files according to the selected codes or symbols.

5. Ask each group to review the existing records and determine the required materials for filing, storing, and maintaining them using the following guide questions:

   • What are the materials you need for filing, storing, and maintaining the records of the organization?
   • Who, when, how and where will these materials be acquired?

6. Ask each group to make their own design of filing cabinet(s) based on their requirements for filing and storing the records and resources available in the area.
Learning notes

What are the procedures for filing, storing, and maintaining the records?

**Step 1.** Sort or arrange each of the records according to the selected categories.

**Step 2.** Mark or label each of the files according to the selected codes or symbols.

**Step 3.** Review the records and determine the materials needed for filing, storing and maintaining them.

**Step 4.** Procure materials for filing, storing, and maintaining the records. (e.g. folders, puncher, stapler, filing cabinet, record book).

**Step 5.** Using the selected categories and codes, file and arrange the records (chronologically or alphabetically) in the filing cabinet(s).

**Step 6.** Maintain a book showing all incoming and outgoing documentation. This is important in controlling the flow and in monitoring the whereabouts of records. It contains dates, titles of the documentation, and names of person who has temporary custody of file(s).

**Step 7.** Check the records regularly to determine proper filing and to repair any damages.

**Step 8.** Conduct a regular inventory of the records to determine active and inactive (dead) files.

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Course 1.9
Establishing and managing the fund of the organization for village forestry

Introduction

The course is aimed at strengthening the capabilities of: (a) PAFO trainers in training DAFO staff and villager in establishing and managing the fund of the organization, (b) DAFO extension workers in facilitating and providing technical assistance to villagers in establishing and managing the fund of the organization, and (c) villagers in establishing and managing the fund of the organization.

The lessons are designed to provide the participants with a better understanding of the requirements and procedures for establishing and managing the fund of the organization. Participants should acquire the knowledge and skills in controlling and recording the financial transactions of the organization.

Contents

The course consists of two modules:

Module 1.9.1 Establishing the fund of the organization - In this module, the participants learn importance, requirements, and procedures for opening a bank account for the organization.

Module 1.9.2 Controlling and recording the financial transactions of the organization - The participants acquire the knowledge and skills in (a) formulating and approving the annual work plan and budget of the organization, and (b) controlling and recording the financial transactions of the organization.
Module 1.9.1
Establishing the fund of the organization

Introduction

This module is aimed at providing the participants with the knowledge and skills in opening and maintaining a bank account for the organization.

Contents

The module consists of two lessons:

**Lesson 1.9.1.1 Opening a bank account** - In this lesson, the participants learn the importance of keeping the fund of the organization in a bank and the procedures for opening a bank account.

**Lesson 1.9.1.2 Forms for opening and maintaining a bank account** - The participants acquire the knowledge and skills in using forms needed in opening a bank account and in making withdrawals and deposits.
Lesson 1.9.1.1
Opening a bank account

Objectives

At the end of the lesson, the participants should be able to
1. describe a bank and how it operates;
2. discuss the importance of keeping the organization’s fund in a bank; and
3. explain the procedures in opening a bank account.

Methods

Lecture-discussion

Time

Two hours

Process

1. Ask the participants to discuss their own understanding of a bank and how it operates.

2. Ask the participants to discuss the existing local practices of keeping and handling money in the village, e.g. for buying cattle, loans to family and friends, stocks of food or other goods, gold, jewelry. Discuss the advantages and disadvantages of each practice.

3. Ask the participants to discuss the advantages and disadvantages of keeping funds in a bank. Compare these with the existing local practices discussed above.

4. Ask the participants to discuss the factors to consider in opening a bank account and the procedures for opening a bank account.

5. Summarize the results of the discussion and give a brief lecture using the learning notes.

Learning notes

What is a bank?

A bank is a business that stores and lends money.

How does a bank operate?

A bank operates on a simple marketing principle: some people have less of something than they need, and others have more than they need. A bank operates as an intermediary in the exchange of resources; in this case the resource is money. A
bank is able to operate because some people have less money than they need and others have more money than they can spend immediately. It brings together people and businesses that want to borrow money or that want to lend money.

For those people who have extra cash, a bank will provide services and other incentives to encourage people to store their money in the bank. Specifically:

- the bank will pay interests
- the bank provides services such as records
- the bank provides a means of paying bills
- the bank provides security

For those who need more money, the bank will loan money but borrowers will have to pay a fee (interest) for that money.

**What is an interest?**

A common form of interest is the fee people or businesses pay to borrow money. It is usually a percentage of the amount borrowed and it is calculated over a set period of time. Interest rates are partly a payment to the lender. But interest rates also account for the fact that money often loses its value or purchasing power over time. For example, two months ago the price of one kilo of rice was cheaper than it is today. As a result, interest rates will usually be higher when the price of goods is increasing quickly. Banks pay interest rates to account holders because the bank is, in a sense, borrowing that money.

**Why is it important to keep money in a bank?**

- Money in a bank cannot be stolen or lost. It is safe.
- Money in a bank earns accumulative interest.
- Money can easily be deposited and withdrawn.
- There are records kept for all transactions that help in accountability and records keeping.
- Large bills can be paid directly without keeping large amounts of cash in the village.
- Large amounts of cash payments can be directly deposited without being lost or stolen in the village.
- Money can be borrowed from the bank to finance the activities of the organization.

**What are the procedures in opening a bank account?**

**Step 1** The organization drafts the rules on establishment of a fund which contain:

- Name and location of depository bank where the bank account will be opened.
- Name of the account (under the official name of the organization and not individual members).
- Specifies the type(s) of bank account to be opened.
• Authorized officers/members as signatories for opening and operating (withdrawals and deposits) the bank account (there are more than one authorized signatories for the bank account).

Step 2 The members or villagers and the village administration discusses and approves the above rules on the establishment of fund.

Step 3 The necessary requirements for opening a bank account are completed (e.g. bank form for opening an account, signature card, letter from the village chief confirming the identity of the authorized signatories, deposit form, and a letter from the chairpersons attested by the village chief requesting for the opening of a bank account). In the case of a village cluster or group, all the village chiefs in the cluster or group sign and affix their official seals.

Step 4 Any of the authorized signatories submit all requirements for opening an account to the bank together with the initial amount of deposit.

Step 5 One of the authorized signatories receive the bank book and a copy of the deposit form and gives it to the book keeper for safe keeping.
Lesson 1.9.1.2
Forms for opening and maintaining a bank account

Objective
At the end of the lesson, the participants should be able to explain how to use the forms needed for opening a bank account for the organization and to make withdrawals and deposits.

Methods
Lecture-discussion, peer tutoring, demonstrations, and guided exercises

Materials
Samples of bank deposit form, withdrawal form, signature card, bank book and letter requesting multiple signatures for cash withdrawals and checks. (available from the bank)

Time
Two hours

Process
1. Ask the participants to discuss their own understanding of the forms necessary to open and maintain a bank account.

2. Summarize the important points of the discussion and give a brief lecture using the learning notes and handout. Discuss the contents of the different bank forms and demonstrate how to use or fill out the forms (available from the bank).

3. Distribute the blank forms and ask the participants to use and fill out the forms using the following exemplary exercises:

   • The organization for village forestry of Ban Bakkoumkham has received 20,000 kip from membership fees. The organization wants to open a bank account. The organization has already approved three (3) authorized signatories: Mr. Bounmy, Miss Sisay, and Mr. Bouthon. They go to the bank and open an account. Which forms will they use to open a bank account and what will the completed form(s) look like?

   • The organization receives 10,000,000 kip from advance sales of timber from a sawmill in Savannakhet. Mr. Bounmy is going to Songkhon to deposit the money. Miss Sisay and Mr. Bouthon cannot come with him. Which forms does he need to complete and have signed before he goes to Songkhon to deposit the money?
• The organization receives a bill for transporting logs from Thapangthong to Savannakhet. The bill is for 250,000 kip. There is not enough money in the cash box in the village to pay this bill but the contractor wants his money today. What should the organization do? Which forms will they need to use and complete?

• The organization has received a cheque for 1,000,000 kip. Miss Sisay will go to Songkhon and deposit this cheque. She will also withdraw 250,000 kip for the cash box in the village. What forms will she need to use and fill out when she goes to the bank? Will she need to get any signatures before she goes to Songkhon?

4. Summarize and review the results of the exercises and make suggestions for improvements (if any).
Module 1.9.2
Controlling and recording the financial transactions of the organization

Introduction

The module is aimed at providing the participants with knowledge and skills in controlling and recording the financial transactions of the organization. The participants learn how to (a) prepare and approve the organization’s annual work plan and budget, (b) establish and maintain the organization’s financial books, i.e. budget book, receipt book, cashbook and bank book, and (c) authorize payments.

Contents

The module consists of ten lessons:

Lesson 1.9.2.1  *Introduction to budgeting* - In this lesson, the participants acquire a better understanding of budgeting and its importance.

Lesson 1.9.2.2  *Procedures for formulating and approving the organization’s annual work plan and budget* - The participants are provided with the knowledge and skills in preparing and approving the organization’s annual work plan and budget.

Lesson 1.9.2.3  *Budget book* - The participants learn how to establish and maintain the budget book of the organization.

Lesson 1.9.2.4  *Bank book* - The participants learn how to interpret the contents of the bank book and to use the bank book.

Lesson 1.9.2.5  *Introduction to accounting* - The participants acquire a better understanding of accounting and its importance.

Lesson 1.9.2.6  *Payments and receipts* - The participants learn how to differentiate payments from receipts.

Lesson 1.9.2.7  *Authorizing payments* - The participants learn (a) the different types of payments, (b) the importance of payments, and (c) the procedures for authorizing payments.

Lesson 1.9.2.8  *Receipts* - The participants acquire a better understanding of the importance of receipts. They acquire the knowledge and skills in reading and writing receipts.

Lesson 1.9.2.9  *Receipt book* - The participants are provided with the knowledge and skills in establishing and maintaining the receipt book of the organization.

Lesson 1.9.2.10  *Cash book* - The participants acquire the knowledge and skills in establishing and maintaining the cash book of the organization.
Lesson 1.9.2.1
Introduction to budgeting

Objective

At the end of the lesson, the participants should be able to describe a budget and its importance.

Methods

Lecture-discussion

Time

45 minutes

Process

1. Ask the participants to explain their own understanding of a budget and its importance using the following guide questions:

   • What is a budget?
   • What information is needed to prepare a budget?
   • Why is a budget important?

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

Learning notes

What is a budget?

A budget is the organization’s financial plan. It is based on activities and the estimated costs associated with said activities.

What is needed to prepare a budget?

The information needed to prepare a budget includes:

• Estimate of incoming cash and assets of the organization for the budget period
• Schedule of activities
• Labor needed to complete the activities
• Materials and equipment needed to complete the activities
• Other costs needed to complete the activities
Why is a budget important?

- It assists in the planning process of an organization.
- It assists the managers in decision-making and planning of activities.
- Members of the organization know and decide how much money is being spent on specific activities.
- It assists with the organization’s accounting system.
Lesson 1.9.2.2
Procedures for formulating and approving the annual work plan and budget

Objective

At the end of the lesson participants should be able to explain the procedures in formulating and approving the annual work plan and budget of the organization.

Methods

Lecture-discussion and group work

Materials

Approved village forest management plan, village development project plan (if any), sample format of an annual work plan and budget, and blank sheets of writing paper

Time

Three hours

Process

1. Ask the participants to discuss their own understanding of the procedures for formulating and approving the annual work plan and budget of the organization.

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

Learning notes

What is the procedure in formulating and approving the annual work plan and budget of the organization?

Step 1. The organization reviews the approved village forest management plan and village development project plan (if any) and identifies the key activities to be included in the annual work and budget of the organization.

Step 2. The organization prepares a draft annual work plan and budget where each of the key activities has a corresponding budget (see sample).

Step 3. The chairperson presents the draft annual work plan and budget to the members or villagers and the village administration for discussion and approval.

Step 4. As soon as the annual work plan and budget is approved, the date of approval is indicated and the chairperson and the village chief affix their signatures and official seals. In the case of a village cluster or group, all the village chiefs in the
cluster or group affix their signatures and official seals. For an inter-village forestry committee and a Group of VFCs/VFAs, the chairperson signs and DAFO head attests.

**Step 5** The secretary posts the approved annual work plan and budget on the village bulletin board for dissemination of general information.
Handout no. 1.9.2.2.1 – Sample of an annual work plan and budget

Name of organization for village forestry ___________________________

<table>
<thead>
<tr>
<th>No.</th>
<th>Activity</th>
<th>Target output Qty</th>
<th>Schedule</th>
<th>Estimated budget</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Unit 1 2 3 4 5 6 7 8 9 10 11 12</td>
<td>Labor</td>
<td>Materials &amp; tools</td>
</tr>
</tbody>
</table>

Approved by the organization for village forestry and the village administration on ______ at Ban ____________

Signed by: ____________________________

Attested by: ____________________________

Chairperson
Organization for village forestry

Village chief (s)/
DAFO head

Note: In the case of a village cluster or group, all the village chiefs in the cluster or group sign and affix their official seals. For a village forestry committee and a village forestry association, the chairperson signs and the village chief attests. For an inter-village forestry committee and a Group of VFCs/VFAs, the chairperson signs and DAFO head attests.
Lesson 1.9.2.3
Budget book

Objectives

At the end of the lesson participants should be able to explain the importance of a budget book and record the organization’s expenditures in the budget book.

Methods

Lecture-discussion, demonstration and guided group exercise

Materials

Approved annual work plan and budget, budget book, pen, and calculator

Time

45 minutes

Process

1. Ask the participants to discuss the importance of a budget book and procedure for using the budget book.

2. Form the participants into groups (e.g. by organization). Ask each group to prepare a budget book based on their approved annual work plan and budget.

3. Ask the participants to do an exercise in entering the following examples of transactions into the budget book:

   • The organization pays 1,200,000 kip to Team 2 for road clearing.
   • The organization buys pens and paper worth 50,000 kip.
   • The manager receives his compensation of 75,000 kip.

4. Summarize the discussion and give a brief lecture using the learning notes.

Learning notes

Why is a budget book important?

• to ensure that money is being spent based on approved annual budget
• to keep track of how much money has been spent and how much remains in the approved annual budget

What is the procedure in using the budget book?

Every time the organization makes payments for labor or buys supplies or equipment, the cost of these should be entered in the budget book and the remaining balance calculated.
Handout no. 1.9.2.3.1 - Sample of a budget book

Name of organization for village forestry_____________________
Activity number and title: _____________________
Approved budget: ______________

<table>
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<tr>
<th>No.</th>
<th>Date</th>
<th>Voucher No.</th>
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<th>Balance</th>
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</tr>
</tbody>
</table>

Prepared by:
________________________
Bookkeeper

Note: The budget book is a compilation of the budget per activity with corresponding based on the approved annual work plan and budget of the organization. All payments made by the organization are entered into the corresponding activity budget and updated regularly by the bookkeeper.
Lesson 1.9.2.4

Bank book

Objective

At the end of the lesson, the participants will be able to understand and explain the contents of a bank book.

Methods

Lecture-discussion, demonstration and guided exercises

Materials

Bank book, copies of records of bank deposits and withdrawals, calculator, large sheets of paper, marker, and masking tape

Time

Two hours

Process

1. Divide participants into groups and distribute the handout on the contents of a bank book. Ask the participants to compare it to their own books so that they realize that it has the same format and content.

2. Discuss the different columns in the bank book. (e.g. date, code, withdrawal, deposit, balance, authorized, and control) and explain how to interpret the information entered in each of the columns.

3. Ask participants to explain the different types of transactions shown in the bank book using the following guidelines:

   - Describe the financial transactions for a particular day.
   - How many withdrawals were there in a particular day?
   - How many deposits were there in a particular month?

4. Distribute the copy of the record on deposits and withdrawals and ask participants to find the specific deposit and withdrawal slips and match them to those shown in the bank book. Ask participants to arrange them in chronological order.

5. Summarize the discussions and exercises and make suggestions for improvement (as needed).
### Handout no. 1.9.2.3.1 - Sample of transactions or contents of a bank book

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<th>Code</th>
<th>Withdrawal</th>
<th>Deposit</th>
<th>Balance</th>
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<th>Control</th>
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<tr>
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<td>=105.000,00</td>
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<td>26/10/98</td>
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<td>=</td>
<td>=9.821.000,00</td>
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</tbody>
</table>

**Note:** The bank book shows all transactions relating to the organization’s bank account which includes dates and amounts of withdrawals and deposits, interest earned, and amount of balance in the bank. The transactions are recorded and updated by the bank. The bank book is kept by the bookkeeper of the organization.
Lesson 1.9.2.5
Introduction to accounting

Objective

At the end of the lesson, the participants should be able to explain the meaning and importance of accounting.

Methods

Lecture-discussion

Materials

Large brown sheets of paper, markers and masking tape

Time

45 minutes

Process

1. Ask the participants to discuss their own understanding of accounting and its importance.

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

Learning notes

What is accounting?

Accounting is a recording system used by an organization to keep track of the financial status of the organization.

Why is accounting important?

- It provides information needed for making decisions.
- It provides information needed for planning.
- It provides information needed for reporting.
- Members of the organization should know how much money is available and how it was spent.
- It is required by law.
- It ensures transparency in the organization’s financial transactions.
Lesson 1.9.2.6
Payments and receipts

Objective

At the end of the lesson, the participants should be able to explain the difference between payments and receipts.

Methods

Lecture discussion and guided group exercises

Materials

Large sheets of paper, marker, and masking tape

Time

One hour

Process

1. Ask the participants to discuss their own understanding of payments and receipts (cash in and cash out).

2. Ask the participants to identify whether the items below should be recorded as payments or receipts:
   - Interest received on money in the bank account
   - Royalty to the government
   - Sale of lumber at second landing
   - Compensation of villagers for labor
   - Purchase of calculator for forest inventory team
   - Salary of manager

3. Summarize the discussion and exercise and give a brief lecture using the learning notes.

Learning notes

What is the difference between payments and receipts?

Payments and receipts are the two basic categories of financial transactions. Receipts are money that an organization receives (cash in). Payments are money that the organization spends (cash out).
Lesson 1.9.2.7
Authorizing payments

Objectives

At the end of the lesson, the participants should be able to

1. describe the different types of payments;
2. discuss the importance of authorizing payments;
3. prepare a payment voucher; and
4. explain the procedures for authorizing payments

Methods

Lecture-discussion, demonstration, guided exercises, and role play

Materials

large brown sheets of paper, marker, and calculator

Time

Two hours

Process

1. Ask the participants to discuss the activities of the organization, (i.e. village forest management, administration and others). Write these activities on a large sheet of paper.

2. Based on the above list of activities, ask the participants to discuss the different types of costs (labor, materials, capital, tools, etc.) that are needed to implement said activities. List these costs on a large sheet of paper.

3. Ask the participants to discuss their own understanding of payment authorization and its importance.

4. Discuss and demonstrate to the participants the procedures in preparing a payment voucher and authorizing payments using the learning notes and handouts. Ask the participants to prepare the payment authorization voucher using the following exercises:

   a. Miss Sisay works for three days in April clearing logging trails for the logging operations. She is paid 3,000 kip a day for labor. What will the payment voucher look like?

   b. Mr. Bounmy will be going to Thapangthong in June. The organization needs to buy PVC pipes. The organization will give him a cash advance to pay for the pipes. The cost of the pipes is estimated at 20,000 kip. What will the payment voucher look like?
Mr. Khamdeng from the DAFO office has assisted the organization at the second landing. The organization has decided to pay him a rate of 3,000 kip per day. He worked for four days in March. What will the payment voucher look like?

5. Using the payment vouchers produced in the above exercises, conduct a role play on the procedures for authorizing payments. Select participants who are willing to play certain roles, e.g. bookkeeper, treasurer, chairperson/manager and a person requesting authorization for payment. After the exercise, process the learning, observations and experiences derived from the role play exercise.

Learning notes

What are the types of payments?

The main types of payments are:
- Labor payments
- Materials and equipment payments
- Contract payments

What is an authorization for payments?

Authorization of payments is a written document (e.g. voucher) granting permission to a specific person or organization to receive organization’s money for a specific purpose. It is written proof that a person or organization may be paid by the organization for use of their labor or capital inputs.

Who should prepare and approve the authorization for payment?

The organization needs to elect someone to authorize to approve/sign authorizations for payments. The person who has the authority to authorize funds should not be the same person who holds the cash. It is important that payments be authorized by more than one person so that many persons are aware how the organization’s money is being spent and that it is spent in accordance with the approved annual work plan and budget.

How is payment made?

The person receiving the payment presents the voucher to the person responsible for the cash box. This person will confirm that the payment has been authorized (it has been signed by proper authority) and will then issue the payment. This person will issue a receipt and attach it to the voucher for the receipt record.

What are the procedures for authorizing payments?

Step 1. The person requesting payment (payee) submits the payment voucher to the bookkeeper. The bookkeeper checks and confirms if the expenditure is in accordance with the approved annual budget and signs the payment voucher.

Step 2. The bookkeeper also determines whether there is available money to pay for the expenditure. If money is not available then the bookkeeper will (a) ask the treasurer to
withdraw funds from the bank to cover the cost, or (b) inform the concerned party when the money will be available.

**Step 3.** The payment voucher is forwarded to the chairperson/manager who certifies that the expenditure is in accordance with the approved annual work plan and approves/signs the payment voucher.

**Step 4.** The payment voucher goes to the treasurer who makes the actual payment to the concerned party. The treasurer and the payee sign the voucher as proof of payment.

**Step 5.** The bookkeeper receives the receipt as proof for payment or purchase and records it in the cash book and receipt book.

**Step 6.** The bookkeeper records in the budget book the paid expenditure and subtracts it from the total budget.
**Handout no. 1.9.2.7.1 - Sample payment voucher for purchase of materials and equipment**

<table>
<thead>
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<th>Name of organization</th>
<th>Authorization for materials and equipment purchase</th>
<th>No:</th>
</tr>
</thead>
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<table>
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<tr>
<th>Date: ___ / ___ / ___</th>
<th>Authorized by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount: ___________</td>
<td>Authorized by</td>
</tr>
<tr>
<td>Received by:___________</td>
<td>Authorized by</td>
</tr>
<tr>
<td>Details:</td>
<td>Authorized by</td>
</tr>
</tbody>
</table>

**Note:** Approval of this payment voucher is required for the purchase of materials and equipment. Prior to the actual payment, it has to be authorized by at least 3 persons (e.g. the bookkeeper certifies that the payment is in accordance with the approved annual budget and that there are available funds for the purpose; the chairperson or manager certifies that the payment is in accordance with the approved annual work plan and signs the voucher; and the treasurer makes the payment to the payee in accordance with the approved voucher.)
Handout no. 1.9.2.7.2 – Sample payment voucher for labor and other services

Name of organization____________________________________________________________

Payment for labor and other services
No: __________________________________________________________________________

Paid to:________________________________ ________________________________ _____

Work description:________________________________ _____________________________

_____________________________________________________________________________

Date from:  / / to   / /

<table>
<thead>
<tr>
<th>Name</th>
<th>Compensation rate</th>
<th>Total amount</th>
<th>Signature</th>
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<tbody>
<tr>
<td></td>
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</tbody>
</table>

TOTAL

Authorized by: | Authorized by: | Authorized by:

Note: Approval of this voucher is required for the payment of labor and other services. Prior to the actual payment, it has to be authorized by at least 3 persons (e.g. the bookkeeper certifies that the payment is in accordance with the approved annual budget and that there are available funds for the purpose; the chairperson or manager certifies that the payment is in accordance with the approved annual work plan and signs the voucher; and the treasurer makes the payment to the payee in accordance with the approved voucher.)
Lesson 1.9.2.8
Receipts

Objective
At the end of the lesson, the participants should be able to explain the importance of receipts and be able to read and write receipts.

Methods
Lecture-discussion and guided group exercise

Materials
Sample of different kinds of receipts (blank or used), pens, paper, and calculator

Time
Two hours

Process
1. Ask the participants to discuss their own understanding of:
   - a receipt and its importance
   - types of receipts
   - contents of a receipt
2. Summarize the discussion and give a brief lecture using the learning notes.
3. Form the participants into groups and ask them to write receipts using the following exercises:
   - The organization pays labor wages to Mr. Bounmy for three days work at a rate of 5,000 kip.
   - The organization receives 15,000,000,000 kip from sawmill No. 46. for the sale of logs from second landing.
   - The organization buys a cow from Mr. Bounton to kill before the timber harvesting begins. The cost of the cow is 500,000 kip.
   - The manager buys a box of pens in Thapangthong district for 2,000 kip.
4. Summarize and review the results of the exercises and make suggestions for improvements needed (if any).

Learning notes
What is a receipt?
A receipt is a written, signed record of a cash transaction. It serves as written proof that a transaction occurred. It records the date, amount of payment, description of the expense,
the name of the person receiving the money, and a record of the person paying the money. It has a number for easy recording. In addition, there may be two copies, one for each party in the transaction.

If there are no receipt books available, receipts can be written on blank pieces of paper. The information should include:

- Receipt number
- Name of payee
- Date
- Amount
- Description
- Name and signature of person receiving money

Example:

<table>
<thead>
<tr>
<th>Name of organization</th>
<th>Receipt Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>Amount:</td>
<td></td>
</tr>
<tr>
<td>Description:</td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Received by:</td>
<td></td>
</tr>
</tbody>
</table>

What are the types of receipts?

- **Payment receipts** - Payment receipts are written every time cash is paid. For example, if the organization pays a person for his/her labor or services, it should ask that person to sign a receipt claiming that they received the money. That person can either sign the receipt or use his/her thumbprint.

- **Income receipts** - Income receipts are written every time cash is received. For example, if a sawmill buys wood from the organization at second landing, the organization should write a receipt claiming that they sold the wood to the sawmill on a certain day, at a certain price. Both the sawmill and the organization should keep a copy of the receipt. Alternatively, the sawmill can prepare the receipt.
Lesson 1.9.2.9
Receipt Book

Objective
At the end of the lesson, the participants should be able to establish and maintain a receipt book.

Methods
Lecture-discussion and guided group exercise

Materials
Handout on sample of a receipt book (monthly summary), calculator, pens, and paper

Time
One hour

Process
1. Ask the participants to discuss their own understanding of the importance and procedures of keeping receipts and in establishing and maintaining a receipt book.

2. Summarize the discussion and give a brief lecture using the learning notes.

Learning notes

Why is it important to keep receipts?
It is important to keep receipts so that there is a record of the transactions of the organization. For example, if the organization pays the owner of a lumber truck but does not receive a receipt, the driver could always claim that he did not receive the payment. Even though the organization is sure that they paid the salary, there is no record or proof that it was paid. This leaves the organization vulnerable.

How are receipts kept?
a. Receipts are all kept in a safe place.
b. Receipts are organized chronologically.
c. Receipts with their corresponding approved payment vouchers are compiled in a receipt book.
d. The receipt book is kept and maintained by the bookkeeper.
e. The bookkeeper summarizes the receipts every month.

What is a receipt book?
A receipt book consists of chronologically compiled receipts together with the corresponding approved payment vouchers. Its also consists of a monthly summary of receipts which is prepared and updated by the bookkeeper and certified by the Chairperson. The monthly summary of receipts includes the name of the organization, month, number of transaction, receipt number, date of receipt, description and amount and total amount (see handout).
Handout no. 1.9.2.9.1 – Sample of a receipt book

Name of organization _____________________________________________
Summary for the month of ______________

<table>
<thead>
<tr>
<th>No. Receipt No.</th>
<th>Date of Receipt</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Prepared by: ____________________________________________
Certified by: ____________________________________________

______________________ ______________________
Bookkeeper Chairperson
__________________ __________________
(Date) (Date)

Note: The receipt book consists of a chronological compilation of receipts together with the corresponding approved payment vouchers. Its also consists of a monthly summary of receipts which is prepared and updated by the bookkeeper and certified by the chairperson.
Lesson 1.9.2.10
Cashbook

Objective

At the end of the lesson, the participants should be able to describe a cash book and its contents and be able to use and maintain a simple cash book.

Methods

Lecture-discussion, demonstration and guided group exercise

Materials

Sample of a cash book and receipt book. Calculators, and pens (2 colors)

Time

Two hours

Process

1. Discuss and explain the various parts of the cashbook and how it will correlate with the receipt book using the learning notes.

2. Divide the participants into groups and provide them copies of the receipt book. Ask them to enter the receipt information into the cash book.

3. Summarize and review the outputs of the exercise and make suggestions for improvements needed (if any).

Learning notes

What is a cashbook?

A cashbook is record of money coming in and/or going out of the organization’s treasury. For the purposes of the organization, there will be six columns or categories:

<table>
<thead>
<tr>
<th>Date</th>
<th>Details</th>
<th>Cash In</th>
<th>Cash Out</th>
<th>Balance</th>
<th>Record No.</th>
</tr>
</thead>
</table>

Prepared by: ____________________

Bookkeeper
The columns of the cash book
All of the information to be added in the cash book should be found on the receipts.

Date The day that the cash was paid or received by the organization
Details A description of the payment or receipt
Cash In The amount of cash in (amount received). If there is no cash in, leave this column blank.
Cash Out The amount of cash out (amount paid). If there is no cash out, leave this column blank.
Balance The amount of cash left after cash has been paid or received. To calculate the balance take the previous balance and either add the cash in or subtract the cash out. The balance must always be calculated with every transaction.

Example Previous balance + Cash In = Balance
(or)
Previous balance – Cash Out = Balance

Record No. The number of the receipt.

To make it easier to understand the entries in the cash book, it may be helpful to use two different colored pens. For example, red for all cash out, and blue or black for all cash in.

Monthly summaries

At the end of the month, a sub-total of all expenditures will be calculated. To calculate the cash in sub-total, add together all the entries in the cash in column for the month. To calculate the cash out sub-total, add together all the entries in the cash out column for the month.
Course 1.10
Reporting and auditing the operations of organizations for village forestry

Introduction

The course is aimed at strengthening the capabilities of (a) PAFO trainers in training DAFO staff and villagers in reporting and auditing the operations of the organization, (b) DAFO extension workers in facilitating and providing technical assistance to villagers in reporting and auditing the organization’s operations, and (c) villagers in reporting and auditing the operations of the organization.

The lessons are designed to equip the participants with the knowledge and skills in (a) preparing monthly and annual progress reports and financial statements, and (b) conducting an internal audit and inventory of properties of the organization.

Contents

The course consists of two modules:

**Module 1.10.1. Preparing a monthly and annual progress report and statement of accounts** – In this module, the participants acquire the knowledge and skills in preparing a monthly and annual progress report and statements of accounts of the organization.

**Module 1.10.2 Conducting an internal audit and inventory of properties** – The participants learn the importance and procedures in conducting a internal audit and inventory of properties of the organization.
Module 1.10.1
Preparing a monthly and annual progress report and statement of accounts

Introduction

This module is aimed at providing the participants with the knowledge and skills in preparing a monthly and annual progress report and statement of accounts of the organization.

Contents

This module consists of four lessons:

Lesson 1.10.1.1 Importance of a monthly and annual progress report - In this lesson, the participants learn the importance and procedures for preparing a monthly and annual progress report of the organization.

Lesson 1.10.1.2 Writing a monthly and annual progress report - The participants acquire the knowledge and skills in writing a monthly and annual progress report of the organization.

Lesson 1.10.1.3 Importance of a monthly and annual statement of accounts - The participants learn the importance and procedures for preparing a monthly and annual statement of accounts.

Lesson 1.10.1.4 Writing a monthly and annual statement of accounts - The participants acquire the knowledge and skills in writing a monthly and annual statement of accounts.
Lesson 1.10. 1.1
Importance of a monthly and annual progress report

Objective

At the end of the lesson, the participants should be able to explain the importance and procedures for preparing a monthly and annual progress report.

Materials

Approved rules on reporting

Time

45 minutes

Process

1. Ask the participants to review the approved rules on reporting and discuss the importance and procedures for preparing a monthly and annual progress report using the following guide questions:
   a. Why is a monthly and annual progress report important?
   b. By whom, how and when is a monthly and annual progress report prepared?
   c. To whom will the monthly and annual progress report be presented or submitted?

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

Learning notes

Why is a monthly and annual progress report important?

a. It provides information to villagers and other concerned parties of the achievements and problems encountered in the implementation of village forestry activities during the month or year.

b. It is an important tool in monitoring and evaluation to take actions on problems and to improve the operations and performance of the organization.

c. It serves as a reference for new officers of the organization.

By whom, when, and how is a monthly and annual progress report prepared?

The manager prepares the monthly and annual progress report. It is certified by the chairperson and attested by the village chief(s). In the case of a village cluster or group, all the village chiefs in the cluster or group sign and affix their official seals on the report. It is prepared based on actual work or activities undertaken as per approved annual work plan. It is prepared on specific date(s) as indicated in the approved rules on reporting.
To whom will the monthly and annual progress report be presented or submitted?

The monthly and annual progress report is presented to the villagers and the village administration and submitted to concerned district authorities (e.g. DAFO) as may be required.
Lesson 1.10.1.2
Writing a monthly and annual progress report

Objective
At the end of the lesson, the participants should be able to explain and prepare a monthly and annual progress report.

Materials
Approved annual work plan and handout on sample format of a monthly and annual progress report

Time
Two hours

Process
1. Discuss with the participants the format and contents of monthly and annual progress report (see handout).

2. Using the approved annual work plan, ask the participants to conduct a group exercise on preparing a monthly and annual progress report.

3. Review the output(s) and make suggestions for improvements as needed.
**Name of organization:** ________________________________________________________

For the month/year of _____________

1. **Accomplishments**

<table>
<thead>
<tr>
<th>Activities</th>
<th>Target Output</th>
<th>Accomplished</th>
<th>Remarks</th>
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</thead>
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<tr>
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</tbody>
</table>

2. **Problems and recommendations**

<table>
<thead>
<tr>
<th>Problems</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
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<td></td>
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</tbody>
</table>

Ban _____________________, _______________ (date)

Prepared by: _____________________

Certified by: _____________________

__________ Manager

__________ Chairperson

Attested by: _____________________

__________ Village chief(s)

**Note:** In the case of a village cluster or group, all the concerned village chiefs in the cluster or group sign and affix their official seals.
Lesson 1.10.1.3
Importance of a monthly and annual statement of accounts

Objective

At the end of the lesson, the participants should be able to explain the importance and procedures for preparing a monthly and annual statement of accounts.

Materials

Approved rules on reporting and management of fund

Time

45 minutes

Process

1. Ask the participants to review the approved rules on reporting and management of fund and discuss the importance and procedures for preparing monthly and annual statements of accounts using the following guide questions:

   a. Why is a monthly and annual financial statement of accounts important?
   b. By whom, how and when is a monthly and annual statement of accounts prepared?
   c. To whom will the monthly and annual statements of accounts be presented or submitted?

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

Learning notes

Why is a monthly and annual statement of accounts important?

a. It provides information to villagers and other concerned parties on how the organization’s fund is being used.

b. It is an important tool in controlling the financial transactions and in auditing the operations of the organization.

c. It promotes transparency in the use of the organization’s funds.

By whom, when, and how is a monthly and annual statement of accounts prepared?

The bookkeeper and treasurer prepare each monthly and annual statement of accounts. It is certified by the chairperson and attested by the village chief(s). In the case of a village cluster or group, all the village chiefs in the cluster or group sign and affix their official seals on the report. It is prepared based on financial books of the organization (e.g. bank book, cash book, receipt book and budget book). It is prepared on specific date(s) as indicated in the approved rules on reporting.
To whom will the monthly and annual statement of accounts be presented or submitted?

The monthly and annual statement of accounts will be presented to the villagers and the village administration and submitted to concerned district authorities (e.g. DAFO) as may be required.
Lesson 1.10.1.4
Writing a monthly and annual statement of accounts

Objective

At the end of the lesson, the participants should be able to explain and prepare a monthly and annual statement of accounts.

Materials

Financial books (i.e. bank book and cash book) and handout on sample format of monthly and annual statement of accounts

Time

Two hours

Process

1. Discuss with the participants the format and contents of monthly and annual statements of accounts (see handout).

2. Using the financial books (i.e. bank book and cash book) ask the participants to conduct a group exercise on preparing a monthly and annual statement of accounts.

3. Review the output(s) and make suggestions for improvements as needed.
Handout no. 1.10.1.4.1. – Sample of a monthly and annual statement of accounts

Name of organization: _________________________________________________________

For the month/year of: _________________

<table>
<thead>
<tr>
<th>Items</th>
<th>Details</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank withdrawals (from bankbook)</td>
<td></td>
<td></td>
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<tr>
<td>Bank deposits (from bankbook)</td>
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<tr>
<td>Bank balance (from bankbook)</td>
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<td></td>
</tr>
<tr>
<td>Cash in (from cashbook)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash out (from cashbook)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash box balance (from cashbook)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Account balance (add bankbook &amp; cashbook balance)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ban _________________________, _____________

Prepared by: Certified by:

_________________ _________________ ______________________
Bookkeeper Treasurer Chairperson

Attested by:

_______________________
Village Chief(s)

Note: In the case of a village cluster or group, all the concerned village chiefs in the cluster or group sign and affix their official seals.
Module 1.10.2
Conducting an internal audit and inventory of properties

Introduction

The module is aimed at providing the participants with the knowledge and skills in conducting an internal audit and inventory of properties of the organization.

Contents

The module consists of three lessons:

Lesson 1.10.2.1 *Importance of an internal audit and inventory of properties*- In this lesson, the participants are able to understand the importance of an internal audit and inventory of properties of the organization.

Lesson 1.10.2.2 *Procedures in conducting an internal audit and inventory of properties*- The participants learn the procedures in conducting an internal audit and inventory of properties of the organization.

Lesson 1.10.2.3 *Writing an internal audit and inventory (properties) report*- The participants acquire the knowledge and skills in writing an internal audit and inventory (properties) report.
Lesson 1.10. 2.1
Importance of an internal audit and inventory of properties

Objective

At the end of the lesson, the participants should be able to explain the importance of an internal audit and inventory of properties of the organization.

Method

Lecture discussion

Time

45 minutes

Process

1. Ask the participants to discuss their own understanding of an internal audit and inventory of properties and its importance.

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

Learning notes

What is an internal audit and inventory of properties?

An internal audit and inventory of property is initiated by the organization to check and confirm that: (a) the financial records of the organization are in order; (b) the organization is complying with the organization’s approved rules and operating procedures relating to the management of funds; and (c) the organization’s resources and properties are properly accounted for.

Why is an internal audit and inventory important?

a. It helps ensure that the financial operations of the organization are in accordance with its approved rules and operating procedures, and its plans.

b. It identifies problems related to the financial operations of the organization and allows the organization to correct them.

c. It ensures “checks and balance” and promotes transparency in the financial operations of the organization.

d. It serves as input in improving the financial operations and performance of the organization.
Lesson 1.10. 2.2
Procedures in conducting an internal audit and inventory of properties

Objective

At the end of the lesson, the participants should be able to explain the procedures in conducting an internal audit and inventory of properties.

Methods

Lecture -discussion

Materials

Approved rules on establishment and management of funds, financial books (i.e. budget book, bank book, cash book and receipt book), monthly and annual financial statements, handout on sample of an internal audit and inventory (properties) report, calculator, paper, pens

Time

One hour

Process

1. Ask the participants to discuss their own understanding of how to conduct an internal audit and inventory of properties using the following guide questions:

   a. What are the procedures for conducting an internal audit and inventory of properties?
   b. When and who conducts the internal audit and inventory of properties?

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

Learning notes

When and who conducts the internal audit and inventory of properties?

The audit and inventory committee (formed by the organization) conducts the internal audit and inventory of properties on the time set forth in the organization’s approved by-laws and rules. The audit and inventory committee is responsible for checking that: (a) the financial records are in order, (b) the cash of the organization is being used and managed properly, (c) the properties, equipment, and other resources of the organization are accounted for, and (d) the findings of the internal audit and inventory of properties are reported to the organization and the village administration.
What are the procedures in conducting an internal audit and inventory of properties?

**Step 1** The audit and inventory committee reviews the organization’s approved by-laws and rules and operating procedures pertaining to financial management (e.g. establishment and management of funds, use of revenue, employment and compensation, etc.). It also reviews the monthly and annual statements of accounts of the organization.

**Step 2** The audit and inventory committee reviews and checks all financial transaction records of the organization (e.g. cash book, receipt book, budget book and bank book) including:

- a. Check that there are receipts and records for all payments made.
- b. Check that all cash transactions are recorded in the cashbook.
- c. Check that all payments are properly authorized.
- d. Check that all receipts and records are dated.
- e. Check that all transactions and receipts contain adequate descriptions.
- f. Check that all bank transactions are properly authorized and recorded.
- g. Check that all purchases and payments are in accordance with approved annual budget.
- h. Check that all cash receipts are signed by the person receiving the goods, services, or cash.
- i. Check that the compensation rates used are in accordance with approved rules on employment and compensation.

**Step 3** The audit and inventory committee checks whether the money available on hand reconciles with the balance shown in the financial records of the organization including:

- a. Count the money in the cash box at the village.
- b. Check the balance in the cash book.
- c. Check the balance in the bank book.

**Step 4** The audit and inventory committee makes an inventory and listing of existing properties of the organization (e.g. equipment, tools).

**Step 5** The audit and inventory committee reports their findings to the organization and the village administration. The internal audit and inventory (properties) report includes the audit findings, inventory of the organization’s properties, equipment and tools, recommendations to correct any problems encountered and timeframe to correct said problems (see handout).
Lesson 1.10.2.3
Writing an internal audit and inventory (properties) report

Objective

At the end of the lesson, the participants should be able to explain and prepare an internal audit and inventory (properties) report.

Materials

Financial books (i.e. bank book and cash book), monthly and annual statements of accounts, handout on sample format of an internal audit and inventory (properties) report.

Time

Two hours

Process

1. Discuss with the participants the format and contents of an internal audit and inventory of properties report (see handout).

2. Using the financial books of the organization (i.e. bank book and cash book) and the monthly and annual statement of accounts, ask the participants to conduct a group exercise on preparing an internal audit and inventory (properties) report.

3. Review the output(s) and make suggestions for improvements if any.
1. Name of the organization____________________________   Audit report no._______

2. Reporting period __________________________________________________________

3. List of rules reviewed

List of financial book checked
_____________________________________ Cash Book
_____________________________________ Bank Book
_____________________________________ Receipt Book
_____________________________________ Budget Book
_____________________________________ Others(specify)

Cash in hand: ________________

5. Cash in bank accounts:
   Acct No.    Balance
   Acct No.    Balance
   Acct No.    Balance

6. Current total cash:

7. Total interest payments (from all bank accounts): _____________________________

8. Total cash in for year: ____________________________________________________

9. Disbursements ________________________________

<table>
<thead>
<tr>
<th>Budget Items</th>
<th>Total</th>
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<tbody>
<tr>
<td>Examples</td>
<td></td>
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<tr>
<td>Forest management operations</td>
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<td>Forest nursery operations</td>
<td></td>
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<tr>
<td>Village forest plantation operations</td>
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<tr>
<td>Agro-forestry farm development</td>
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<tr>
<td>Administration of the organization</td>
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<tr>
<td>Welfare support</td>
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<td>Village development</td>
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<td>Others (specify)</td>
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</table>

TOTAL

331
10. Findings, problems, and recommendations

<table>
<thead>
<tr>
<th>Findings and problems</th>
<th>Recommendations</th>
</tr>
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<tbody>
<tr>
<td>Financial records</td>
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<td>Authorization of payments</td>
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<td>Compensation (as applicable)</td>
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<tr>
<td>Receipts</td>
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<tr>
<td>Others (specify)</td>
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11. Inventory of properties

<table>
<thead>
<tr>
<th>Equipment and tools</th>
<th>Location</th>
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</tbody>
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Prepared by the Inventory and Audit Committee

__________________________________ __________________________
VFA Chairperson Date

__________________________________ __________________________
Member Member

Attested by:

__________________________________ ________________________
Chairperson Village Chief

Date Date

Note: In the case of a village cluster or group, all the village chiefs in the cluster or group sign and affix their official seals.
Course 1.11
Forming a Group of Village Forestry Associations
and securing official recognition

Introduction

The course is aimed at strengthening the capabilities of (a) PAFO trainers in training state forestry staff and villagers in forming a Group of VFAs and in securing official recognition, (b) DAFO extension workers in facilitating and providing technical assistance to villagers in forming a Group of VFAs and in securing official recognition, and (c) villagers in forming a Group of VFAs and in securing official recognition.

The lessons are designed to provide the participants with a better understanding of the requirements, guidelines, and procedures in forming a Group of VFAs and in securing official recognition from district and provincial authorities.

Contents

The course consists of five modules:

Module 1.11.1 Importance, guidelines, and procedures in forming a Group of Village Forestry Associations and a District Committee on Village Forestry (DCVF) – In this module, the participants learn the importance, guidelines, and procedures in forming a Group of village forestry associations and a district committee on village forestry (DCVF).

Module 1.11.2 Reaching a consensus on the elements of a Group of VFAs - The participants acquire the knowledge and skills in discussing and reaching a consensus on the elements of a Group of VFAs.

Module 1.11.3 Importance, requirements, and procedures in securing Group official recognition – The participants learn the importance, requirements, and procedures in securing Group official recognition.

Module 1.11.4 Formulating the Group by-laws - The participants learn the importance and contents of the Group by-laws and the factors to consider in writing the Group by-laws. The participants acquire the knowledge and skills in writing the Group by-laws.

Module 1.11.5 Formulating the articles of Group association and Group treasurer’s certification – The participants learn the importance and contents of the articles of Group association and the Group treasurer’s certification. The participants acquire the knowledge and skills in writing the articles of Group association and the Group treasurer’s certification.
Module 1.11.1
Importance, guidelines, and procedures in forming a Group of Village Forestry Associations and a District Committee on Village Forestry

Introduction

The module is aimed at providing the participants with adequate understanding of the importance, guidelines, and procedures in forming a Group of VFAs and a District Committee on Village Forestry (DCVF) and how it relates to the overall organization building and development in village forestry.

Contents

The module consists of three lessons:

**Lesson 11.1.1 Review of the stages of organization building and development in village forestry** - In this lesson, the participants acquire a better understanding of how the formation of the Group of VFAs and the District Committee on Village Forestry (DCVF) relates to the overall process and stages of organization building and development in village forestry.

**Lesson 11.1.2 Importance and guidelines in forming a Group of VFAs and a District Committee on Village Forestry (DCVF)** - The participants learn the need, importance, and guidelines in forming a Group of VFAs and a DCVF.

**Lesson 11.1.3 Procedures for forming a Group of VFAs and a District Committee on Village Forestry (DCVF)** - The participants acquire an understanding of the procedures for forming a Group of VFAs and a DCVF.
Lesson 1.11.1.1
Review of the stages of organization building and development in village forestry

Objective

At the end of the lesson, the participants should be able to relate the formation of a Group of VFAs and District Committee on Village Forestry (DCVF) to the overall process of organization building and development in village forestry.

Method

Lecture-discussion

Material needed

Handout on stages of organization building and development in village forestry

Time

45 minutes

Process

1. Ask the participants to explain their own understanding of how the formation of a Group of VFAs and a District Committee on Village Forestry relates to the overall process of organization building and development in village forestry.

3. Summarize the important points of the discussion and gives a brief lecture using the handout.
Handout 1.11.1.1.1 - Stages of organization building and development in village forestry

Village forestry core group (VFCG)
- Small informal group of 5-10 villagers
- Village wide coverage
- Simple & informal rules & operating procedures
- Responsible for forming a VFC/VFA
- Short term action plan
- Temporary & short term organizational arrangement

Village forestry committee (VFC)
- Small formal group of 10-15 villagers
- Small village wide coverage
- Officially recognized by district authorities
- Elaborate rules & operating procedures
- Responsible for forming a VFA
- Long term plan
- Semi-permanent organizational arrangement

Village forestry association (VFA)
- Large formal grouping of qualified villagers
- Large village wide coverage
- Officially recognized by provincial authorities
- Elaborate and formal rules and standardized operating procedures
- Long term plan
- Permanent term organizational arrangement

Inter-VFC/VFA committee
- Small informal group of inter-VFC/VFA officers
- Multiple village coverage
- Responsible for forming a Group of VFCs/VFAs
- Simple and informal rules and operating procedures
- Short term action plan
- Temporary & short term organizational arrangement

Group of VFCs/VFAs
- Formal organization of officially recognized VFCs/VFAs
- Inter VFCs/VFAs cooperation
- Multiple village coverage
- Officially recognized by the provincial authorities
- Elaborate and formal rules and standardized operating procedures
- Long term work plan
- Permanent organizational arrangement

District Committee on Village Forestry (District level)
Lesson 1.11.1.2
Importance and guidelines in forming a Group of Village Forestry Associations and a District Committee on Village Forestry

Objective

At the end of the lesson, the participants should be able to explain the importance and guidelines in forming a Group of Village Forestry Associations (VFA) and a District Committee on Village Forestry (DCVF).

Method

Lecture-discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

One hour

Process

1. Ask the participants to review and discuss the common problems that VFAs encountered during their operations in the past year that require the promotion of an inter-VFA cooperation through the formation of a Group of VFAs and the DCVF. Ask the participants what will happen to their future operations if they do not institute an inter-VFA cooperation and coordination.

2. Ask the participants to discuss their own understanding of the importance and guidelines in forming a Group of VFAs and a DCVF and list them on a large brown sheet of paper.

3. Summarize the important points of the discussions and give a brief lecture using the learning notes.

Learning notes

What is the importance of forming a Group of Village Forestry Associations (VFA) and a District Committee on Village Forestry (DCVF)?

- There are VFA activities that can be done more effectively through a collective manner rather than by individual VFAs and in collaboration with the district authorities concerned (e.g. request approval from Government of sustainable harvest of timber and NTFP and allocation of annual harvest to member-VFAs, timber marketing, sales, harvest, and transport, conflict resolutions, forest protection, etc.)
• It promotes inter-VFA cooperation and VFA-district authorities collaboration in sustainable forest management and socio-economic development of villagers.

• The Group of VFAs and DCVF oversee and coordinate the operations of organizations for village forestry within the district.

• It is a requirement for Group certification.

• It helps ensure uniformity, efficiency, economy, and transparency in the operations of organizations for village forestry.

• It helps facilitate the provision of technical, organizational, and other services needed by member VFAs.

What are the guidelines to be considered in forming a Group of VFAs and DCVF?

• It is formed based on the recognized need of the VFAs and district authorities to improve their operations and achieve their common objectives of organization in village forestry within the district. The roles and responsibilities of the Group and the DCVF are based on the needs of VFAs and district authorities, respectively.

• It promotes inter-VFA cooperation and VFA-district authorities collaboration in village forestry.

• The process of forming the Group of VFAs and the DCVF is closely coordinated.

• The organizational structure and operation of the Group of VFAs and DCVF is simple and transparent.

• It is formed based on the area of operations (e.g. district).

• Group membership is voluntary and open to registered VFAs operating in the district as attested by the district authorities concerned.

• The costs and benefits of village forestry are fairly shared by member-VFAs and between the VFAs and district authorities.

• The Group is officially recognized by the Government (e.g. district and provincial authorities).

• It complies with the requirements for Group certification.
Lesson 1.11.1.3
Procedures in forming a Group of Village Forestry Associations (VFA) and a District Committee on Village Forestry.

Objective

At the end of the lesson, the participants should be able explain the procedures in forming a Group of Village Forestry Associations (VFA) and a District Committee on Village Forestry (DCVF).

Method

Lecture-discussion

Materials

Handouts on flowchart showing the procedures in forming Group of VFAs and sample of a Group membership agreement, large brown sheets of paper, marker, and masking tape

Time

One hour

Process

1. Based on the participants’ experience, ask them to discuss their own understanding of how they will form a Group of VFAs and DCVF and list the ideas on a large brown sheet of paper.
2. Summarize the important points of the discussion and give a brief lecture using the learning notes and handout.

Learning notes

What are the procedures in forming a Group of Village Forestry Associations (VFA) and a District Committee on Village Forestry (DCVF)? (see handout)

Step 1 Conduct informal discussions (using community organizing skills in ground working) with VFAs and district authorities regarding operational problems encountered and possible solutions giving emphasis on inter-VFA cooperation and coordination.

Step 2 Organize consultative workshop of selected VFA officers (e.g. chairperson and managers) and representatives of district authorities (e.g. DAFO) to discuss common operational problems and identify possible solutions. During the workshop, initial consensus is reached regarding the need for inter-VFA cooperation and formation of a Group of VFAs and a district committee on village forestry (DCVF).
Step 3 The rationale, functions, and composition of the DCVF is discussed and agreements reached. The DCVF oversees, coordinates, monitors and evaluates the operations of organizations on village forestry within the district. The DVFC is formed and composed of:

- Deputy District Governor- Chairperson
- Head of DAFO – Vice-Chairperson
- Chief of Forestry Unit DAFO- member
- Chairperson of Group of VFAs- member
- Manager of Group of VFAs-member

As needed, the DVFC may co-opt other representatives of the district authorities to become members of the committee.

Step 4 Organize an inter-VFA committee comprised of selected VFA officers to initiate the process of forming a Group of VFAs following an approved action plan.

Step 5 Inter-VFA committee develops the initial design of the Group -- its objectives, organizational structure, roles and responsibilities, including a draft Group by-laws and articles of group association.

Step 6 Inter-VFA committee conducts a series of VFA meetings to discuss and get feedback on the initial design of the Group.

Step 7 Based on the results of the discussions, the inter-VFA committee finalizes the design of the Group.

Step 8 Inter-VFA committee conducts a Group membership campaign and gets confirmation of VFA membership to the Group.

Step 9 Constitute the Group general assembly. The VFA chairperson submits an application letter and a resolution from the VFA policy committee authorizing a number of VFA officer(s) as official representative(s) to the Group general assembly.

Step 10 Group general assembly meets (a) to ratify the Group by-laws and articles of association, (b) to elect Group officers and to constitute the Group audit and inventory committee.

Step 11 Constitute the Group management committee. The group general assembly appoints officers and members of the Group management committee.

Step 12 The Group management committee appoints the members of the Group training and education committee, support staff, and sub-committees (as needed).

Step 13 The Group chairperson and the VFA chairperson signs the Group membership agreement (see handout).
### Procedures for forming a Group of Village Forestry Associations (VFA) and a District Committee on Village Forestry (DCVF)

<table>
<thead>
<tr>
<th>District authorities/VFA</th>
<th>DCVF/Group of VFAs</th>
<th>Inter-VFA Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss operational problems</td>
<td>Form the District Committee on Village Forestry</td>
<td>Form inter-VFA committee and prepare action plan</td>
</tr>
<tr>
<td>Organize workshop to discuss common VFA problems &amp; reach consensus on forming a GVFA and DCVF</td>
<td>Draft/finalize group design and by-laws (with training/workshop)</td>
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<tr>
<td>Discuss draft Group design &amp; by-laws</td>
<td>Conduct Group membership campaign</td>
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<tr>
<td>Discuss group membership application</td>
<td>Receive and evaluate applications for Group membership</td>
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<tr>
<td>Apply for group membership through a VFA policy committee resolution confirmed by the village chief(s)</td>
<td>Constitute the Group general assembly</td>
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<tr>
<td></td>
<td>Ratify group by-laws and articles of Group association</td>
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</tr>
<tr>
<td></td>
<td>Elect officers and form audit and inventory committee</td>
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<tr>
<td></td>
<td>Form management committee, education and training committee and sub-committees</td>
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<tr>
<td></td>
<td>Chairpersons of member-VFA and Group of VFAs sign the Group membership agreement</td>
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</tbody>
</table>

**Note:** The DCVF oversees and coordinates the formation of the Group of VFAs
Handout no. 1.11.3.2 - Sample of a Group Membership Agreement

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Peace Independence Democracy Unity Prosperity

Group Membership Agreement

Based on the approved by-laws of the Thapangtong Group of VFAs dated _________ and the approved application for Group membership of the Kiaosothkhoumkham Village Forestry Association.

This Group membership agreement is entered into between the Kiaosothkhoumkham Village Forestry Association represented by its chairperson and the Thapangtong Group of VFAs represented by its chairperson.

Terms and conditions

The Kiaosothkhoumkham Village Forestry Association shall:

(a) Abide by the terms and condition of membership agreement, by-laws, rules, and decisions of the Group;
(b) Comply with the Group code of practice and all applicable national and local laws, rules and regulations in its forest management, organizational, and other operations.
(c) Pay the annual contributions to the Group to support its programs and activities; and
(d) Promote the policies, objectives and purposes of the Group.

The Thapangtong Group of Village Forestry Associations shall:

(a) Provide technical, organizational, educational and other services needed by the Kiaosothkhoumkham Village Forestry Association;
(b) Monitor, control and audit compliance of Kiaosothkhoumkham Village Forestry Association with the Group code of practice including all applicable national and local laws, rules and regulations;
(c) Submit regular Group progress and financial report to the Kiaosothkhoumkham Village Forestry association; and
(d) Help improve effectiveness, efficiency and autonomy in the operations of the Kiaosothkhoumkham Village Forestry Association.

Termination of agreement

This agreement can be terminated by both parties for non-compliance of the terms and conditions.

Effectivity

This agreement shall take effect immediately upon signing of both parties.

Signed in Thapangtong District on ____________

Mr. Khamtane Mr. Phoulay
Chairperson Chairperson
Thapangtong Group of VFAs Kiaosothkhoumkham Village Forestry Association
Module 1.11.2
Reaching a consensus on the elements of a Group of VFAs

Introduction

The module is aimed at providing the participants with the knowledge and skills in discussing and reaching an initial consensus on the elements of a Group of VFAs.

Content

The module consists of six lessons:

**Lesson 1.11.2.1 Reaching a consensus on Group name, policies, and objectives** - In this lesson, the participants acquire knowledge and skills in discussing and reaching an initial consensus on Group name, policies, and objectives.

**Lesson 1.11.2.2 Reaching a consensus on Group administration and management** - The participants are provided with knowledge and skills in discussing and reaching an initial consensus on Group administration and management including the structure and responsibilities of the organizational units.

**Lesson 1.11.2.3 Reaching a consensus on Group membership** - The participants acquire knowledge and skills in discussing and reaching an initial consensus on Group membership (i.e. qualifications, rights and responsibilities, membership procedures and termination).

**Lesson 1.11.2.4 Reaching a consensus on Group officers** - The participants are provided knowledge and skills in discussing and reaching an initial consensus on Group officers (i.e. qualification, responsibilities, term of office, compensation).

**Lesson 1.11.2.5 Reaching a consensus on Group costs and benefits sharing including management and use of funds** - The participants are equipped with knowledge and skills in discussing and reaching an initial consensus on Group costs and benefits sharing including the management and use of fund.

**Lesson 1.11.2.6 Reaching a consensus on Group code of forest management practice, books of account, internal audit and inventory, annual report, and handling of complaints** - In this lesson, the participants acquire knowledge and skills in discussing and reaching an initial consensus on Group code of forest management practice, books of account, internal audit and inventory, annual report, and handling of complaints.
Lesson 1.11.2.1
Reaching a consensus on Group name, policies, and objectives

Objective

At the end of the lesson, the participants should be able discuss and reach initial consensus on the Group name, policies, and objectives.

Method

Lecture-discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

Two hours

Process

1. Ask the participants to discuss the Group name, policies, and objectives using the following guide questions:

   • What is the most suitable name for the Group? Why?
   • What are the policies that the Group is committed to?
   • What are the objectives and purposes for forming the Group?

2. Summarize the important points of the discussions and give a brief lecture using the learning notes.

3. Ask the participants to reach an initial consensus on the Group name, policies, and objectives and write them on a large brown sheet of paper.

Learning notes

What is the name of the group?

The Group name may be based on the forest management unit or district (e.g. Thapangtong Group of VFAs or Songkone Group of VFAs). This will allow other qualified VFAs operating within the district to join the group.

What are the policies of the group?

• The Group is truly dedicated to the promotion of inter-VFA cooperation in the sustainable management of designated forests in _________ district and in the socio-economic development of villagers in the area.
- The Group is fully committed to meet the standards of forest certification (as applicable) which includes compliance to all applicable national and local laws, rules, and regulations in the sustainable management of designated forests in __________ district.
- The Group is totally committed to promote effectiveness, efficiency, and autonomy in the operations of its member-VFAs to achieve their common goals and objectives.
- The Group is truly committed to work in partnership with district forestry authorities in the planning, implementation and management of village forestry programs, projects and activities.
- The Group strongly advocates transparency in its operations and ensures that Group costs and benefits are fairly shared by its member-VFAs.

What are the objectives and purposes for forming a group of VFAs?

The Group is formed for the following objectives and purposes:

- To request approval by the Government of the Group’s annual sustainable harvest of timber and non-timber forest products and to allocate parts of the approved harvests to member VFAs.
- To enter into agreements with other parties pertaining to marketing, selling, harvesting, transporting, and processing of VFA timber and other non-timber forest products.
- To institute a Group code of forest management practice that member VFAs have to conform with in their forest management operations.
- To monitor, control and audit compliance of member-VFAs with forest certification standards including all applicable national and local laws, rules and regulations.
- To provide organizational, technical, and other needed services to VFA-members.
- To procure production inputs for member-VFAs through a collective purchasing system.
- To establish and manage common VFA funds to support village forestry development.
- To help resolve conflicts among VFA-members.
- To liaison with government agencies, non-governmental organizations, forest certifiers, companies, and other concerned parties.
Lesson 1.11.2.2
Reaching a consensus on Group administration and management

Objectives
At the end of the lesson, the participants should be able to discuss and reach initial consensus on the organizational structure of the group.

Method
Lecture-discussion

Materials
Handout on the organizational structure of the Group of VFAs, large brown sheets of paper, marker, and masking tape

Time
Two hours

Process
1. Based on the initial consensus reached in lesson 1.11.2.1 and actual experiences in forming and operating the VFAs, ask the participants to discuss the Group administration and management using the following guide questions:
   
   a. What is the most appropriate organizational structure that will lead to an effective administration and management of the Group of VFAs? Why?
   b. What are the responsibilities and composition of the Group general assembly?
   c. What are the responsibilities and composition of the Group management committee?
   d. What are the responsibilities and composition of the Group education and training committee and the Group audit and inventory committee?

2. Summarize the important points of the discussion and give a brief lecture using the learning notes and handout.

3. Ask the participants to reach an initial consensus on the organizational structure of the Group and write the points of agreement on a large brown sheet of paper.
Learning notes

What is the organizational structure of a Group of VFAs?

A Group of Village Forestry Associations is comprised of: (a) General Assembly (highest decision and policy making body) responsible for administering and overseeing the programs and activities of the Group. It is composed of authorized representative(s) of each of the member-VFAs. The member-VFA chairpersons are automatic members of the Group general assembly. The authorized representatives will elect among themselves a chairperson, vice chairperson, secretary, and treasurer; (b) Management Committee (implementing body) responsible for implementing the day-to-day operations of the group. It is composed of a manager, deputy manager, bookkeeper and support staff appointed by the Group general assembly.

It also has an Education and Training Committee responsible for planning and implementing training and educational activities of the Group. An Audit and Inventory Committee is responsible for the annual internal audit of books of accounts and inventory of other records and properties of the Group. Sub-committees are formed based on specific tasks (e.g. timber marketing, selling, resolution of boundary conflicts).
Handout 1.11.2.2.1 - Organizational structure of a Group of Village Forestry Associations

GENERAL ASSEMBLY
(Composed of member VFAs through their authorized representatives) Chairperson, Vice Chairperson, Secretary, and Treasurer
Highest decision and policy making body

Audit and Inventory Committee
(Properties)

MANAGEMENT COMMITTEE
(Composed of a Manager, Deputy Manager, Bookkeeper and support staff)
Implementing body

Education and Training Committee

Sub-committee
Sub-committee
Sub-committee
Sub-committee
Lesson 1.11.2.3
Reaching a consensus on Group membership

Objective

At the end of the lesson, the participants should be able discuss and reach initial consensus on Group membership (i.e. qualifications, rights and responsibilities, membership procedures and termination of membership).

Methods

Lecture-discussion

Materials

Handouts on sample application letter for Group membership, sample VFA Policy Committee resolution for Group membership and sample Group membership agreement, large brown sheets of paper, marker, and masking tape

Time

Two hours

Process

1. Ask the participants to discuss Group membership using the following guide questions:
   - Who can qualify to become a member of the Group?
   - How can a VFA become a group member?
   - What are the requirements for Group membership?
   - How much is the Group membership application fee?
   - How much should the annual contribution be? What percent of the net income from forest management should there be?
   - What are the rights of a Group member?
   - What are the responsibilities of a Group member?
   - How can Group membership be terminated or reinstated?

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

3. Ask the participants to reach an initial consensus on Group membership and write the points on a large brown sheet of paper.
Learning notes

Who can qualify to become a group member?

Village forestry associations recognized by the Government and operating in the group’s area of operations (e.g. district) and voluntarily willing to undertake the responsibilities of Group membership.

How can a VFA become a group member? What are the requirements for Group membership?

The VFA applies (in writing) for Group membership together with a VFA policy committee resolution attested by the village chief and membership fee. Group membership is confirmed through a Group membership agreement signed between the Group and VFA chairpersons.

How much is the Group membership fee and annual contribution?

The Group membership fee is agreed upon by the Group based on the estimated Group operational cost and financial capability of member VFAs. The annual contribution may be based on an agreed percentage of the member VFA’s annual net revenue from forest management.

What are the rights and responsibilities of a Group member?

Rights of a Group member

To receive the benefits and services provided by the Group.
To participate in the discussion and decision making of the Group.
To access all Group documentation (i.e. financial and non-financial records, reports, etc.).

Responsibilities of a Group member

To abide by the Group membership agreement, by-laws, rules and decisions.
To pay annual contributions and support Group programs and activities.

How can Group membership be terminated or reinstated?

Group membership can be terminated by withdrawal, suspension or removal. Group membership can be reinstated by Group general assembly based on a appeal from the suspended or removed group member.
Handout no. 1.11.2.3.1 - Sample letter of application for Group membership

Lao People´s Democratic Republic
Peace Independence Democracy Unity Prosperity

Province of Savannakhet
Districts of Thapangtong and Songkone
Kiaosothkhoumkham Village Forestry Association

To: The Chairperson
Kiaosothkhoumkham Village Forestry Associations

Subject: Application for Membership to the Thapangtong Group of Village Forestry Associations

Based on the Resolution of the Policy Committee of the Kiaosothkhoumkham Village Forestry Association dated _____________________________

Recognizing the need for inter-VFA cooperation in sustainably managing designated village forests and in improving the socio-economic condition of villagers.

Therefore, I, Mr. Phoulay, Chairperson and representing the Kiaosothkhoumkham Village Forestry Association declare that:

(a) the Kiaosothkhoumkham Village Forestry Association is recognized by the Government and has an approved village forest management plan covering an area of 6,251 hectares of forests;

(b) the Kiaosothkhoumkham Village Forestry Association is operating in Thapangtong District the Kiaosothkhoumkham Village Forestry Association understands and supports the policies and objectives of the Group and is willing to undertake the responsibilities of a Group member; and

(c) the Kiaosothkhoumkham Village Forestry association is voluntarily applying for membership to the Group.

Herewith is the required membership application fee of _________________kips and the Resolution of the Policy Committee of ______________VFA dated __________.

Ban Bakkhoumkham, ___________
(date)

Sincerely yours,
Mr. Phoulay
Chairperson

Attested by :
Mr. Lath Inthavong
Village Chief

Note: In the case of a village cluster or group, all the concerned village chiefs in the cluster or group sign and affix their official seals.
Handout no. 1.11.2.3.2. - Sample of Resolution of the VFA Policy Committee

Lao People’s Democratic Republic
Peace Independence Democracy Unity Prosperity

Kiaosothkhoumkham Village Forestry Association

Policy Committee Resolution No. ____

Title: Membership to the Thapangtong Group of Village Forestry Associations

Purpose: To confirm the application for membership to the Thapangtong Group of VFAs and to authorize VFA representatives to the Group general assembly

Justification: The reasons for applying for membership to the Thapangtong Group of VFAs are:

(a) The Kiaosothkhoumkham Village Forestry Association recognizes the need for inter-VFA cooperation in sustainably managing designated village forests and the socio-economic development of villagers;
(b) The Kiaosothkhoumkham Village Forestry Association understands and supports the policies and objectives of the Group and appreciates the benefits that can be derived from group membership; and
(c) The Kiaosothkhoumkham VFA qualifies for membership to the Thapangtong Group of VFA.

Resolution: Now, therefore, be it resolved and agreed that:

(a) the Kiaosothkhoumkham Village Forestry Association shall apply for membership to the Thapangtong Group of Village Forestry Associations;
(b) the Kiaosothkhoumkham Village Forestry association shall authorize the following VFA officers as its representatives to the Group general assembly:

<table>
<thead>
<tr>
<th>Name of Representatives</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr. Phoulay</td>
<td>Chairperson</td>
</tr>
<tr>
<td>Mr. Vandy</td>
<td>Manager</td>
</tr>
</tbody>
</table>

(c) the above authorized representatives shall make decisions and sign documents in consultation with the VFA Policy Committee.

Approved on ________________ in Ban Bakkhoumkham

Mr. Phoulay Chairperson
Mr. So Vice-Chairperson
Mr. Phouma Treasurer
Mr. Vandy Manager
Mr. Sengchanh Member
Mr. Kounen Member
Mr. Bouanen Member
Mr. Souphanh Bookkeeper

This is to certify that the above resolution was unanimously approved by the VFA Policy Committee after a thorough discussion at a meeting called for the purpose on __________

Ms. Le
VFA Secretary

Attested by:
Mr. Lath Inthavong
Village Chief

Note: In the case of a village cluster or group, all the village chiefs in the cluster or group sign and affix their official seals.
Lesson 1.11.2.4
Reaching a consensus on group officers (i.e. qualifications, responsibilities, term of office, and compensation)

Objective

At the end of the lesson, the participants should be able discuss and reach initial consensus on the qualifications, responsibilities, term of office, and compensation of group officers.

Method

Lecture-discussion

Materials

Organizational structure of the Group of VFAs, large brown sheets of paper, marker, and masking tape

Time

Two hours

Process

1. Based the initial consensus reached in lesson 1.11.2.2 and their own experience in forming and operating the VFAs, ask the participants to discuss the qualifications, responsibilities, term of office, and compensation of Group officers using the following guide questions:

   - What are the qualifications of Group officers?
   - What are the responsibilities of the Group officers? (e.g. Chairperson, vice Chairperson, treasurer, secretary, bookkeeper, manager, and deputy manager)
   - How are these officers elected or appointed?
   - How many years will the Group officers serve?
   - How can the Group officers be removed or reinstated?
   - How are vacancies filled?
   - How will Group officers be compensated?

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

3. Ask the participants to reach an initial consensus on the qualifications, responsibilities, term of office, and compensation of group officers and write them on a large brown sheet of paper.
Learning notes

Who are the officers of the Group?

The Group officers include chairperson, vice-chairpersons manager, deputy manager, secretary, treasurer and bookkeeper.

What are the qualifications of Group officers?

- authorized representative of VFA members to the group
- possess the necessary knowledge, skills, experience, time and willingness to work

How will group officers be elected or appointed?

The election or appointment of group officers is through a majority and secret vote of the Group general assembly.

How long will group officers serve?

The number of years that Group officers can serve depends on the decision of the Group as indicated in its approved by-laws.

How can group officers be removed or reinstated?

Group officers can be removed or reinstated by a majority vote of the Group general assembly.

How will vacancies be filled?

Vacancies are filled by the remaining members of the Group general assembly.

How will group officers be compensated?

Group officers are compensated out of the funds of the group and the rate of compensation is approved by the group general assembly and concerned district authorities.
Lesson 1.11.2.5
Reaching a consensus on group costs and benefit sharing including management and use of Group fund

Objective
At the end of the lesson, the participants should be able to discuss and reach initial consensus on the sharing of Group costs and benefits including the management and use of the group fund.

Methods
Lecture-discussion

Materials
Large brown sheets of paper, marker, and masking tape

Time
Two hours

Process
1. Based on the discussions in lesson 1.11.2.1, ask the participants to identify the different inputs and costs needed in operating the Group of VFAs.

2. Ask the participants to identify the Expected outcomes or benefits from the Group.

3. Ask the participants to discuss how the Group costs and benefits can be fairly shared by the member-VFAs.

4. Ask the participants to discuss how the Group fund will be established, managed, and used.

5. Summarize the important points of the discussions and give a brief lecture using the learning notes.

6. Ask the participants to reach an initial consensus on the sharing of group costs and benefits including the management and use of group fund and write it on a large sheet of paper.
Learning notes

What are the inputs and costs needed in operating Group of VFAs?

- Manpower resources
- Payment of services of forestry staff and other specialists
- Supplies and materials
- Communication costs
- Audit and monitoring costs
- Timber marketing and sales costs
- Education and training costs
- Other incidental costs

What are the Expected outcomes or benefits from a Group of VFAs?

- VFA quota request and allocation
- Timber marketing, sale and harvesting services
- Standardization of VFA operating procedures (e.g. Group code of practice for forest management
- Internal control and audit of member VFAs
- Technical, organizational, educational and other services
- Procurement of production inputs
- Management of Group fund
- Conflict resolution
- Liaison with government agencies, non-governmental organizations, companies, etc.

How will member-VFAs fairly share the Group costs?

VFA-members can fairly share the costs in operating the Group by:

- giving financial contribution based on the agreed percentage of its annual net revenue from forest management
- providing qualified VFA members to work in the Group

How will member-VFAs fairly share the Group benefits?

The benefits from the group can be fairly shared by member-VFAs by:

- timely and strong representation of member-VFAs to the Group and active participation in planning and decision making processes
- transparency in Group operations
- regular reporting and audit of Group operations
How will the Group fund be established and managed?

The Group fund is established, administered and managed by the Group. Group officers are authorized to establish and management the Group fund. The rules and procedures for the establishment and management of the Group fund are approved by the Group general assembly.

How will the Group Fund be used?

The Group fund will be used in accordance with the Group by-laws and plans approved by the Group general assembly. It will be used mainly to meet the operating costs of the Group.
Lesson 1.11.2.6
Reaching a consensus on Group code of forest management practice, books of accounts, internal audit and inventory, annual report, and handling of complaints

Objective

At the end of the lesson, the participants should be able discuss and reach initial consensus on the Group code of forest management practice, books of accounts, internal audit and inventory, annual report, and handling of complaints.

Method

Lecture-discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

Three hours

Process

1. Ask the participants to discuss matters regarding the group code of forest management practice, books of accounts, internal audit and inventory, annual report, and handling of complaints using the following guide questions:
   - What is the participants’ understanding of a Group code of forest management practice and its importance?
   - By whom and how will the Group code of practice be prepared and approved?
   - By whom and how will the Group books of accounts be established and maintained?
   - By whom and when will an internal audit and inventory be conducted?
   - By whom and when will an annual report be prepared and presented to the Group?
   - By whom and how will complaints from other stakeholders and the public regarding the Group operations be handled?
2. Summarize the important points of the discussions and give a brief lecture using the learning notes.
3. Ask the participants to reach an initial consensus on the Group code of forest management practice, books of accounts, internal audit and inventory, annual report, and handling of complaints and write the points of agreement on a large sheet of paper.
Learning notes

What is a Group code of practice and what is its importance?

A Group code of forest management practice is an agreed upon set of written rules and procedures on how the forest management activities and operations of member-VFAs should be conducted. All member-VFAs are expected to follow the group code of forest management practice in their respective operations.

By whom and how will the Group code of forest management practice be prepared and approved?

The Group code of forest management practice is prepared by the Group management committee with the technical assistance of forestry staff. The group code of forest management practice is approved by the Group general assembly and by the district authorities concerned.

By whom and how will the Group books of accounts be established and maintained?

Group books of accounts are established and maintained by the Group in accordance with accepted accounting practices. The necessary rules and operating procedures for establishing and maintaining the group books of accounts are prepared and approved by the Group general assembly. A bookkeeper is appointed to handle the Group’s books of accounts.

By whom and when will an internal audit and inventory be conducted?

The Group audit and inventory committee conducts an internal audit of the books of accounts and an inventory of records and properties of the Group. The time for conducting the internal audit and inventory is in accordance with the approved Group by-laws.

By whom and when will an annual report be presented to the Group?

The Group chairperson will present the annual report to its member-VFAs in a general assembly meeting. He/she also submits the annual report to concerned district authorities as may be required.

By whom and how will complaints from other stakeholders and the public regarding the Group operations be handled?

The Group management committee, in accordance with the procedures approved by the general assembly, handles all complaints from other stakeholders and the public regarding the operations of the Group.
Module 1.11.3
Importance, requirements, and
procedures in securing Group official recognition

Introduction

This module is aimed at providing the participants with a better understanding of the importance, requirements and procedures for securing Group official recognition from the district and provincial authorities concerned.

Content

The module consists of three lessons:

Lesson 1.11.3.1 Importance of securing Group official recognition- In this lesson, the participants acquire a better understanding of the importance of securing Group official recognition.

Lesson 1.11.3.2 Requirements for securing Group official recognition- The participants learn the requirements for securing Group official recognition (e.g. articles of Group association, Group by-laws, Group treasurer’s certification and application letter for Group official recognition).

Lesson 1.11.3.3 Procedures for securing Group official recognition- The participants learn the procedures for securing Group official recognition from the district and provincial authorities concerned.
Lesson 1.11.3.1
Importance of securing Group official recognition

Objective

At the end of the lesson, the participants should be able explain the importance of securing Group official recognition.

Method

Lecture-discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

30 minutes

Process

1. Ask the participants to discuss their own understanding of the importance of securing Group official recognition.

2. Summarize the important points of the discussions and give a brief lecture using the learning notes.

Learning notes

Why is it important to secure Group official recognition?

- It is officially recognized by the government so it has the personality to enter into agreements with the government and other parties.
- The Group is officially recognized by the likes of its member VFAs.
- It is a requirement for Group certification.
Lesson 1.11.3.2
Requirements for securing Group official recognition

Objective

At the end of the lesson, the participants should be able to explain the requirements for securing Group official recognition.

Methods

Lecture-discussion

Materials

Handouts on sample application letter for Group recognition, sample articles of Group association, sample group by-laws and sample Group treasurer’s certification

Time

One hour

Process

1. Based on their experience in registering the VFAs, ask the participants to discuss their own understanding of the requirements for securing Group official recognition.
2. Summarize the important points of the discussion and give a brief lecture using the learning notes.
3. Review the contents of each of the requirements using the handouts.

Learning notes

What are the requirements for securing Group official recognition?

The requirements for securing Group official recognition are similar to those of the VFAs which include the following:

- Articles of Group Association signed by the Group chairperson (includes the lists of member-VFAs and their authorized representatives and Group officers as annexes);
- Group By-laws signed by the Group chairperson (includes the Group organizational structure as annex);
- Group Treasurer’s Certification attested by the Group chairperson; and
- Application letter signed by the Group chairperson addressed to the Provincial Governor and endorsed by the DAFO and district chief and PAFO requesting official Group recognition.
Handout no. 1.11.3.2.1. - Sample letter of application for Group recognition

Lao People’s Democratic Republic
Peace Independence Democracy Unity Prosperity

Province of Savannakhet
Districts of Thapangtong and Songkone
Thapangtong Group of Village Forestry Associations

To: The Governor
   Province of Savannakhet
   (Thru: The DAFO and District Chief of Thapangtong)

Subject: Request for Official Recognition of the Thapangtong Group of Village Forestry Associations

Based on the Constitution of Lao PDR of 1991, Article 31 on the Organization of Associations
Based on the Forestry Law of 1996

Note: Cite other relevant laws, legislations, rules and regulation as applicable

In order to promote inter-VFA cooperation in sustainably managing ______ hectares of designated village forest in Thapangtong district and in improving the socio-economic condition of villagers in the area.

Therefore, I, Mr. Khamtane, Chairperson of the Thapangtong Group of Village Forestry Associations representing six (6) member-VFAs from Thapangtong district, respectfully request that the Thapangtong Group of Village Forestry Associations be officially recognized.

Enclosed are the Articles of Group Association, By-laws, and Group Treasurer’s Certification for your consideration and approval.

Thapangtong District, ______________
(date)

Sincerely yours,

(SGD) Mr. Khamtane
Chairperson
Handout no. 1.11.3.2.2. - Sample Articles of Group Association

Lao People’s Democratic Republic
Peace  Independence  Democracy  Unity  Prosperity

Articles of Group Association of the Thapangtong Group of Village Forestry Associations

References
The Constitution of Lao PDR of 1991, Article 31 on the organization of associations
The Forestry Law of 1996

Note: Cite other relevant laws, legislations, rules and regulation as applicable

Six (6) registered village forestry associations of Thapangtong District, Province of Savannakhet have voluntarily organized ourselves under the existing laws of Lao PDR. As authorized representatives of these village forestry associations, we hereby certify:

CHAPTER I
Name

That the name of the organization is the Thapangtong Group of Village Forestry Associations, hereinafter referred to as the "Group".

CHAPTER II
Policy statements

That the Group is committed to the pursuit of the following policies:

(a) The Group is truly dedicated to the promotion of inter-VFA cooperation in the sustainable management of designated forests in Thapangtong district and in the socio-economic development of villages in the area;

(b) The Group is fully committed to fully comply with the Group code of practice and all applicable national and local laws, rules, and regulations in the sustainable management of designated forests in Thapangtong district;

(c) The Group is totally committed to promote effectiveness, efficiency, and autonomy in the operations of its member-VFAs to achieve their common goals and objectives;

(d) The Group strongly advocates transparency in its operations and ensures that Group costs and benefits are fairly shared by its member-VFAs; and

(e) The Group strongly supports and truly committed to work in partnership with district forestry authorities in the planning, implementation and management of village forestry programs, projects and activities.

CHAPTER III
Objectives and Purposes

That the group is formed for the following objectives and purposes:

(a) To request approval by the Government of the Group’s annual sustainable harvest of timber and non-timber forest products and to allocate parts of the approved harvests to member VFAs;

(b) To enter into agreements with other parties pertaining to marketing, selling, harvesting, transporting, and processing of VFA timber and other non-timber forest products;

(c) To institute a Group code of practice to standardize operating procedures that member VFAs have to comply in their forest management, organizational, and other operations;
(d) To monitor, control, and audit compliance of member-VFAs with the Group code of forest
management practice and all applicable national and local laws, rules, and regulations;

(e) To provide educational, organizational, technical, and other needed services to VFA-members;

(f) To procure production inputs for member-VFAs through a collective purchasing system;

(g) To establish and manage common VFA funds to support village forestry development;

(i) To help resolve conflicts among VFA-members; and

(j) To liaise with government agencies, non-governmental organizations, forest certifiers, companies,
and other concerned parties.

Chapter IV
Area of Operation

That the area of operation of the Group is in Thapangtong district, Province of Savannakhet, with
its principal office established in Thapangtong District.

Chapter V
Term of Existence

That the term of existence of the Group is indefinite.

Chapter VI
Membership

That the membership of the Group is voluntary and open to all village forestry associations
officially recognized by Government and operating in Thapangtong district.

Chapter VII
Names and Representatives of Member-VFAs

That the Group is initially comprised of six (6) founding member VFAs, which are represented by
the following:

<table>
<thead>
<tr>
<th>Name of member-VFA</th>
<th>Villages/District</th>
<th>Name of authorized representatives</th>
</tr>
</thead>
</table>
| 1. Khiaosotkunkham | Ban Bakkhoumkham, Thapangtong District | Mr. Phoulay  
Mr. Vandy |
| 2. Nonsavanghouangheung | Ban Nonsawang, Thapangtong District | Mr. Kham  
Mr. Soumboun |
| 3. Thapipattana | Ban Thapi, Thapangtong District | Mr. Keo  
Mr. Vy |
| 4. Khiaosomboun | Ban Natamou and Ban Natangneua, Thapantong District | Mr. Chanekene  
Mr. Ngod |
| 5. Hintanghouampattana | Ban Hintangkang-Xe, Ban Hintangkok, and Ban Nakhayom, Thapantong District | Mr. Khamtane  
Mr. Khampanh |
| 6. Khokkhanapheuaviengkam | Ban Nachantang, Ban Kokthaleu, Ban Naphu, and Ban Nalavieng, Thapantong District | Mr. Samiane  
Mr. Sykham |
Chapter VIII
Group Officers

That the number of officers of the Group is seven (7) who are all duly elected representatives of member VFAs as provided for in the by-laws. The names of the Group officers are as follows:

<table>
<thead>
<tr>
<th>Name of officers</th>
<th>Position</th>
<th>Member-VFA represented</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mr. Khamtane</td>
<td>Chairperson</td>
<td>Hintanghpouampattana</td>
</tr>
<tr>
<td>2. Mr. Samiane</td>
<td>Vice-chairperson</td>
<td>Khokkhanapheuviengkam</td>
</tr>
<tr>
<td>3. Mr. Phoulay</td>
<td>Secretary</td>
<td>Kiaosothkhoumkham</td>
</tr>
<tr>
<td>4. Mr. Keo</td>
<td>Treasurer</td>
<td>Thapipattana</td>
</tr>
<tr>
<td>5. Mr. Vandy</td>
<td>Manager</td>
<td>Kiaosothkhoumkham</td>
</tr>
<tr>
<td>6. Mr. Soumboun</td>
<td>Deputy Manager</td>
<td>Nongsavanghouangheung</td>
</tr>
<tr>
<td>7. Mr. Ngod</td>
<td>Bookkeeper</td>
<td>Khiaosoumboun</td>
</tr>
</tbody>
</table>

Approved by a majority of the general assembly of the Thapangtong Group of Village Forestry Associations on November 4, 1999 at Thapangtong District

Signed:

Mr. Khamtane  
Chairperson  
Representative of Hintangouamoattana VFA

Mr. Samiane  
Vice-Chairperson  
Representative of Khokkhanapheuviengkam VFA

Mr. Phoulay  
Secretary  
Representative of Kiaosothkhoumkham VFA

Mr. Keo  
Treasurer  
Representative of Thapipattana VFA

Mr. Vandy  
Manager  
Representative of Kiaosothkhoumkham VFA

Mr. Soumboun  
Deputy Manager  
Representative of Nongsavanghouangheung VFA

Mr. Ngod  
Bookkeeper  
Representative of Khiaosoumboun VFA
Handout no. 1.11.2.3.3 - Sample Group By-Laws

Lao People’s Democratic Republic
Peace  Independence  Democracy  Unity  Prosperity

By-Laws of the Thapangtong Group of Village Forestry Associations

Reference
The Constitution of Lao PDR of 1991, Article 31 on the Organization of Associations
The Forestry Law of 1996

Note: Cite other relevant laws, legislation, rules and regulations as applicable.

The Thapangtong Group of Village Forestry Associations , hereinafter referred to as the “Group”, and represented by duly authorized representatives from member-VFAs do hereby adopt the following by-laws:

CHAPTER I

Name

Article 1. Name. The name of the organization is the Thapangtong Group of Village Forestry Associations.

CHAPTER II

Policy statements

Article 2. Policies. The Group is committed to the pursuit of the following policies:

a. The Group is truly dedicated to the promotion of inter-VFA cooperation in the sustainable management of designated forests in Thapangtong district and in the socio-economic development of villages in the area;

b. The Group is fully committed to comply with the Group code of practice and all applicable national and local laws, rules and regulations in the sustainable management of designated forests in Thapangtong district;

c. The Group is totally committed to promote effectiveness, efficiency, and autonomy in the operations of its member-VFAs to achieve their common goals and objectives;

d. The Group strongly advocates transparency in its operations and ensures that Group costs and benefits are fairly shared by its member-VFAs; and

e. The Group strongly supports and is truly committed to work in partnership with district forestry authorities in the planning, implementation and management of village forestry programs, projects and activities.
CHAPTER III
Objectives and Purposes

Article 3. Objectives. The Group is formed for the following objectives and purposes:

a. To request approval by the Government of the Group’s annual sustainable harvest of timber and non-timber forest products and to allocate parts of the approved harvests to member VFAs;

b. To enter into agreements with other parties pertaining to marketing, selling, harvesting, transporting, and processing of VFA timber and other non-timber forest products;

c. To institute a Group code of forest management practice that member VFAs have to conform with in their forest management operations;

d. To monitor, control, and audit compliance of member-VFAs with the Group code of forest management practice including all applicable national and local laws, rules and regulations;

e. To provide educational, organizational, technical, and other needed services to VFA-members;

f. To procure production inputs for member-VFAs through a collective purchasing system;

g. To establish and manage common VFA funds to support village forestry development;

h. To help resolve conflicts among VFA-members; and

i. To liaise with government agencies, non-governmental organizations, forest certifiers, companies, and other concerned parties.

CHAPTER IV
Administration and Management of the Group

Article 4. Structure of the Group. The Group comprises two (2) main bodies, namely: (a) general assembly and (b) management committee. It can form other committees on education and training, audit and inventory and other sub-committees as needed. The Group organizational structure is shown in Annex A.

Article 5. General Assembly. The general assembly is the highest decision and policy making body of the Group. It is comprised of all the member-VFAs represented by two (2) representative(s) authorized though a resolution of their respective VFA policy committees. The VFA chairperson is an automatic member of the Group general assembly.

Article 6. Responsibilities of the General Assembly. The general assembly has the following responsibilities:

a. administers and oversees the programs and activities of the Group;

b. approves the articles of Group association, by-laws, rules, and code of practice of the Group;

c. approves programs, plans, budgets, contracts, and agreements;

d. appoints, suspends, removes, and reinstates any officers or member of committees;

e. makes decisions on reconsideration of rejected membership applications and reinstatement of member-VFAs; and

f. receives and acts on the reports of the committees.
**Article 7. General assembly meetings.** The annual general assembly meetings are held at least three (3) times a year. Special general assembly meetings can be called by the chairperson or a majority of the general assembly at any time to discuss urgent matters requiring immediate decision.

**Article 8. Quorum at the general assembly meetings.** In the regular or special general assembly meetings, 60% of the total number of authorized VFA representatives to the general assembly constitute a quorum.

**Article 9. Management committee.** The management committee is the implementing body of the Group. It comprises a manager and a deputy manager and supported by an administrative and finance staff. The treasurer and secretary of the general assembly sit as members of the management committee.

**Article 10. Responsibilities of the management committee.** The management committee has the following responsibilities:

- a. implements the approved policies, by-laws, rules and regulations, programs, plans, contracts, and agreements of the Group;
- b. directs, controls, supervises, implements, monitors, and evaluates the day-to-day operations of the Group;
- c. monitors, controls, and audits the operations of member-VFAs to ensure that they comply with the Group code of forest management practice including all applicable national and local laws, rules, and regulations;
- d. hires, suspends, and removes any member of the support staff and sub-committees; and reviews and recommends actions on Group membership applications.

**Article 11. Audit and Inventory Committee.** The audit and inventory committee is responsible for the annual internal audit of the book of accounts and inventory of other records and properties of the Group. It is composed of three (3) members elected by the general assembly. They shall elect among themselves a chairperson and a secretary. No Group officers can be elected as members of the audit and inventory committee and vice versa.

**Article 12. Education and Training Committee.** The education and training committee is responsible for the planning and implementation of training and educational activities of the Group. It is composed of such number as may be determined and appointed by the management committee. The Group vice chairperson is automatically the chairperson of the education and training committee.

**Article 13. Group officers and their duties**
The Group comprises the following officers:

**Chairperson.**
- a. Presides over all meetings of the Group;
- b. Signs official documents, appointments to positions, contracts, agreements, and others which the Group authorizes him/her to sign; and
- c. Performs other duties as authorized by the Group.

**Vice Chairperson.** Assumes the duties of the chairperson in the absence or disability of the chairperson. The vice-chairperson is the automatic chairperson of the education and training committee.

**Manager.**
- a. Takes charge of all activities of the Group;
- b. Sits as a member of the Group general assembly;
- c. Submits regular progress and financial reports to the general assembly; and
- d. Employs, supervises, and dismisses any person working in the support staff and sub-committees in accordance with the rules approved by the general assembly.
Deputy Manager. Assumes the duties of the manager in the absence or disability of the manager.

Secretary
a. Keeps a complete record of group membership and minutes of meetings of the Group;
b. Informs all member-VFAs regarding meetings of the group;
c. Takes care of the Group’s non-financial records and other documents; and
d. Sits as a member of the management committee as the administrative officer.

Treasurer
a. Takes care of all money and other financial records of the group;
b. Keeps a complete record of its cash transactions for the establishment and proof of the Group cash situation;
c. Certifies to the correctness of the Group cash situation in all financial statements and records submitted to the general assembly or any external agencies as required by law;
d. Pays, upon approval of the authorized officers, all financial transactions; and
e. Sits as a member of the management committee as the financial officer.

Article 14. Qualification. Authorized representatives of member VFAs who sits in the Group general assembly and who have the necessary knowledge, skills, experience, time, and willingness to work are qualified to be elected or appointed as officers of the Group.

Article 15. Election of officers. No person is elected or appointed as an officer of the Group unless he or she has the necessary qualifications. The election or appointment of officers of the Group is though a majority vote of the general assembly and by secret balloting. Each member-VFA through its authorized representative(s) has only one vote.

Article 16. Term of office. The officers of the Group serve a term of three (3) years unless removed or withdraw or have become incapacitated due to sickness or death. The term of office of the manager is indefinite. His/her removal is subject only to the unanimous decision of the general assembly.

Article 17. Removal of officers. Elected officers of the Group can be removed by a majority vote of the general assembly. The successor serves the remaining term of office.

Article 18. Vacancies. When a vacancy occurs by reason of death, incapacity, withdrawal, or removal, the vacancy shall be filled by the remaining members of the general assembly. The successor serves the remaining term of office.

Article 19. Compensation. The officers, support staff, and members of committees and sub-committees are compensated out of the funds generated by the Group. The rate of compensation is approved by the general assembly.

CHAPTER V
Membership

Article 20. Qualification of membership. Membership to the Group is voluntary and open to all village forestry associations which are:

a. officially recognized by the Government;
b. operating in Thapangtong district; and
c. willing to undertake the responsibilities of Group membership.

Article 21. Application for Group membership. The procedures for Group membership application are:

a. The application for Group membership is made in writing duly supported by a resolution of the VFA Policy Committee and presented to the Group management committee for review
and appropriate action. The resolution also includes and authorization of VFA representative(s) to the Group general assembly.

b. The application is accompanied by a membership fee of 200,000 kips which will be returned to the applicant if the membership application is rejected.

c. An applicant rejected by the Group management committee may appeal its application to the general assembly by giving notice to the Group secretary seven (7) days before the next general assembly meeting. The decision of the Group general assembly is final.

d. If the membership application is accepted, a Group membership agreement is signed between an authorized representative of the VFA applicant and the Group chairperson.

**Article 22. Annual contribution**- Each member-VFA shall pay an annual contribution of 3% of its net revenue from forest management payable on June 30th of every year.

**Article 23. Responsibilities of a member-VFA**. A member-VFA has the following responsibilities:

a. To abide by the Group membership agreement, by-laws, rules, code of practice, and decisions of the Group;

b. To pay annual contributions to the Group to support its programs and activities; and

c. To promote the policies, objectives, and purposes of the Group

**Article 24. Rights of a member-VFA.** A member-VFA has the following rights:

a. To avail of the benefits and services provided by the Group;

b. To participate in all discussion during Group membership meetings;

c. To vote on all matters brought before Group membership meetings;

d. Authorized representatives of member-VFA can seek any elective position in the Group; and

e. To inspect and examine the books of accounts, minutes of meetings, and other non-financial and financial records of the Group.

**Article 25. Termination of membership.** Membership can be terminated by withdrawal or removal.

**Article 26. Withdrawal.** A member-VFA that wants to withdraw shall inform the Group management committee through a VFA policy committee resolution. No member VFA shall be allowed to withdraw its membership during any period in which it has any pending obligations with the Group.

**Article 27. Removal and suspension.** The Group management committee, through a resolution, can remove or suspend any member-VFA if the latter does not assume its responsibilities as a member. The action of the Group management committee in suspending or removing a member-VFA can be appealed to the Group general assembly for reconsideration and final decision.

**CHAPTER VI**

**Sharing of costs and benefits**

**Article 28. Sharing of costs and other inputs.** The costs and other inputs needed in the operations of the Group are fairly shared by the member-VFAs.

**Article 29. Sharing of benefits.** Benefits and services of the Group are fairly shared by member-VFAs.

**Article 30. Group Fund.** The Group shall manage a Group Fund. This fund comes from membership fee and annual contributions of member-VFAs as stated in articles 21 and 22 and may include external donations.
**Article 31. Use of the Group Fund.** The use of the Group Fund is approved by the general assembly of the Group. Every year, the general assembly approves the allocation and use of funds into: (a) a Group Operating Fund to meet the operating costs of the Group; and (b) a Village Forestry Support Fund to finance provision of support services to the Group and member VFAs by forestry staff and other specialists.

**CHAPTER VII**

**Miscellaneous**

**Article 32. Code of forest management practice.** The Group shall prepare a written code of forest management practice that member-VFAs have to conform with in their forest management operations. The code of forest management practice shall be prepared by the management committee and approved by the general assembly and the district authorities concerned. It shall be reviewed and updated regularly.

**Article 33. Book of accounts.** The group shall keep and maintain a book of accounts in accordance with generally accepted accounting principles and practices.

**Article 34. Internal audit and inventory.** At least once a year, the audit and inventory committee shall undertake an internal audit of the book of accounts and an inventory of other records and properties of the Group.

**Article 35. Annual report.** The Group chairperson shall present an annual progress report and financial statement to its member-VFAs in a general assembly meeting. The report shall also be submitted to concerned authorities, as may be required.

**Article 36. Complaints.** Complaints from other stakeholders or the public regarding the operations of the Group shall be handled by the management committee in accordance with the procedures approved by the general assembly.

**CHAPTER VIII**

**Approval of the by-laws**

**Article 37. Approval of the by-laws.** The general assembly approves the Group by-laws through a majority vote.

**CHAPTER IX**

**Changes in the by-laws**

**Article 38. Amendments of the by-laws.** The general assembly approves changes to the by-laws through a majority vote.

Approved by a majority of the general assembly of the Thapangtong Group of Village Forestry Associations on November 4, 1999 at Thapangtong District

Signed by: Attested by:

Mr. Phoulay
Secretary

Mr. Khamtane
Chairperson
Annex A - Organizational Structure of the Thapangtong Group of Village Forestry Associations

**GENERAL ASSEMBLY**
(Composed of member VFAs through their authorized representatives)
Chaiperson, Deputy Chairperson, treasurer and secretary
Highest decision and policy making body

**MANAGEMENT COMMITTEE**
(Composed of a Manager, Deputy Manager, Bookkeeper and support staff)
Implementing body

Audit and Inventory (Properties) Committee

Education and Training Committee

Sub-committee

Sub-committee

Sub-committee

Sub-committee
Handout no. 1.11.2.3.4 - Sample Group Treasurer’s Certification

Lao People’s Democratic Republic
Peace Independence Democracy Unity Prosperity

Group Treasurer’s Certification

This is to certify that, I, Mr. Keo, have been elected by the general assembly of the Thapangtong Group of Village Forestry Associations as its treasurer and that the total amount received and presently kept by me (in cash) is ________. This amount represents payments of Group membership fees and annual contributions.

Signed by:

Mr. Keo
Group Treasurer

Attested by:

Mr. Khamtane
Group Chairperson
Lesson 1.11.3.3  
Procedures in securing official group recognition  

Objective  
At the end of the lesson, the participants should be able explain the procedures for securing Group official recognition.

Method  
Lecture-discussion

Material  
Handout on procedures for securing Group official recognition

Time  
One hour

Process  
1. Based on the participants’ experience in securing VFA official recognition, ask them to discuss their own understanding of the procedures in securing Group recognition.  
2. Summarize the important points of the discussion and give a brief lecture using the learning notes and handout.

Learning notes  
What are the procedures in securing Group official recognition?  

Step 1  The Group chairperson sends an application letter (together will all the requirements for Group official recognition) to the Provincial Governor through the DAFO and District Chief concerned.

Step 2  The DAFO reviews the request and recommends appropriate action to the district chief.

Step 3  Based on the recommendations of the DAFO, the district chief endorses the request to the Provincial Governor, through PAFO, for approval.

Step 4  The PAFO reviews the request and recommends appropriate action to the Provincial Governor.

Step 5  Based on the recommendations of the PAFO, the provincial governor approves the request for official recognition of the Group.

Step 6  PAFO forwards the approval letter of recognition (with pertinent attachments) to the Group chairperson.
Handout no. 1.11.3.3.1 - Procedures for securing Group recognition

The Group chairperson sends letter application with 4 copies of all requirements for Group recognition to the Provincial Governor though DAFO and District Chief

DAFO receives the application, prepares an approval sheet & forwards it to its Forestry Unit for review

DAFO Forestry Unit reviews the application

No  Application in order?  Yes

DAFO returns the application to the Group for revision

Head of DAFO signs the approval sheet and forwards the application to District Chief

PAFO Forestry Section receives the application and its Forest Management Unit reviews it

PAFO Forestry Section (Forest Management Unit) reviews the application

No  Application in order?  Yes

PAFO returns the application to DAFO for revision

District Chief signs the approval sheet & endorses the application to the Provincial Governor through PAFO

PAFO Forestry Section (Forest Management Unit) puts all relevant information into the VFA registry

Forestry Section Head and PAFO Director signs the approval sheet and endorses it to the Provincial Governor for signature

PAFO sends copies of approval sheet and articles of group association and by-laws to:
1. Group
2. DAFO
   A copy is kept at PAFO

Provincial Governor signs the approval sheet officially recognizing the Group and returns it to PAFO
Module 1.11.4
Formulating the Group by-laws

Introduction

This module is aimed at providing the participants with adequate understanding of the importance and contents of the Group by-laws and the factors to consider in writing the Group by-laws. The participants acquire the knowledge and skills in writing the Group by-laws.

Content

The module consists of four lessons:

**Lesson 1.11.4.1 Importance of the Group by-laws** - In this lesson, the participants acquire a better understanding of the importance of the Group by-laws.

**Lesson 1.11.4.2 Factors to consider in writing the Group by-laws** - The participants learn the factors to consider in writing the Group of by-laws.

**Lesson 1.11.4.3 Contents of the Group by-laws** - The participants learn the contents of the Group by-laws.

**Lesson 1.11.4.4 Writing the Group by-laws** - The participants are provided with the knowledge and skills in writing the Group by-laws.
Lesson 1.11.4.1
Importance of the Group by-laws

Objectives

At the end of the lesson, the participants should be able to explain the importance of the Group by-laws.

Methods

Lecture-discussion

Time

30 minutes

Process

1. Based on their experience with their respective VFA by-laws, ask the participants to discuss their own understanding of the Group by-laws and their importance.

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

Learning notes

What is a set of Group by-laws?

The Group by-laws is a set of written agreements, policies, and rules made by members of a Group of VFAs.

Why is a set of Group by-laws important?

- It guides and governs the operations of the Group.
- It puts on record the Group policies, objectives, organizational structure, etc.
- It provides overall direction in the planning and implementation of Group plans, programs, and activities.
- It provides guidance to Group members and its officers regarding their qualifications, rights, and obligations.
- It binds the Group members together towards a set of common policies and objectives.
- It helps minimize conflicts and misunderstanding among Group members.
- It is a requirement for securing Group official recognition.
- It is a requirement for Group certification.
Lesson 1.11.4.2
Factors to consider in writing the Group by-laws

Objective

At the end of the lesson, the participants should be able to enumerate and explain the factors to consider in writing the Group by-laws.

Methods

Lecture-discussion

Time

30 minutes

Process

1. Based on their experience in writing their respective VFA by-laws, ask the participants to discuss their own understanding of the factors or guidelines to consider in writing the Group by-laws.

2. Summarize the important points of the discussions and give a brief lecture using the learning notes.

Learning notes

What are the factors and guidelines to consider in writing a set of Group by-laws?

- It reflects the real needs and aspirations of Group members.
- It reflects the commitment of the Group to meet the forest certification principles and criteria and other requirements for group certification.
- It ensures clear and fair sharing of costs and benefits among Group members.
- It is simple and understandable to Group members.
- It is consistent with the policies, objectives, and purposes for which the Group was formed.
- It is consistent with existing laws, rules, and regulations of the State and member-VFAs.
- It is approved, reviewed, and revised on a participatory and transparent process.
- It is consistent with the articles of group association.
Lesson 1.11.4.3
Content of the Group by-laws

Objectives

At the end of the lesson, the participants should be able to enumerate and explain the content of a set of Group by-laws.

Methods

Lecture-discussion

Materials

Handout on sample Group by-laws, large brown sheets of paper, marker, and masking tape

Time

45 minutes

Process

1. Based on their experience in writing their respective VFA by-laws and discussions and initial consensus reached in lessons 1.11.2.1 – 1.11.2.6, ask the participants to discuss their own understanding of the content of a Group by-laws and draw-up an outline on a large brown sheet of paper.

2. Summarize the important points of the discussion and give a brief lecture using the learning notes and handout.

Learning notes

What are the contents of a set of Group by-laws?

There is no standard outline for a set of Group by-laws. Its content depends on the needs, aspirations, and experiences of the Group membership. The following content may be considered in writing the Group by-laws:

- **Legal basis or references for forming a group of VFAs**
- **Name of the Group**
- **Policy statements**
- **Objectives and purposes**
- **Group administration and management** (e.g. organizational structure, general assembly and management committee responsibilities and meetings, audit and inventory committee, education and training committee, qualifications and duties of group officers, election/appointment and removal/reinstatement of officers, term of office, filling of vacancies, and compensation)
• **Group membership** (e.g. qualifications, procedures, and requirements for group membership application, annual contributions, rights and obligations of members, termination and reinstatement of group membership)
• **Sharing of Group costs and benefits** (e.g. sharing of costs and benefits by member-VFAs, management and use of group fund)
• **Miscellaneous** (e.g. Group code of practice, book of accounts, internal audit and inventory, annual report, handling of complaints)
• **Approval of group by-laws**
• **Review and changes of Group by-laws**
• **Signatories** (e.g. Group chairperson and secretary)
Lesson 1.11.4.4
Writing the Group by-laws

Objectives

At the end of the lesson, the participants should be able to write and explain the group by-laws.

Methods

Group work and discussion

Materials

Handout on sample Group by-laws

Time

Five hours

Process

1. Based on their experience in writing their respective VFA by-laws and the output of lesson 1.11.4.3, ask the participants to discuss and write the Group by-laws.

2. Review the output together with the participants and make suggestions for improvements as needed.
Module 1.11.5
Formulating the articles of group association
and the Group treasurer’s certification

Introduction

This module is aimed at providing the participants with adequate understanding of
the importance and content of the articles of Group association and the Group
treasurer’s certification. The participants acquire the knowledge and skills in writing
the articles of group association and the Group treasurer’s certification.

Contents

The module consists of four lessons:

Lesson 1.11.5.1 Importance of the articles of group association- In this lesson the
participants learn the importance of the article of group association.

Lesson 1.11.5.2 Content of the articles of Group association- The participants
acquire a better understanding of the content of the articles of Group association.

Lesson 1.11.5.3 Writing the articles of Group association- The participants are
provided with the knowledge and skills in writing the articles of Group association.

Lesson 1.11.5.4 Writing the Group treasurer’s certification- The participants
acquire (a) adequate understanding of the importance and contents of the Group
treasurer’s certification, and (b) knowledge and skills in writing the Group treasurer’s
certification.
Lesson 1.11.5.1
Importance of the articles of group association

Objective

At the end of the lesson, the participants should be able to explain the articles of group association and their importance.

Methods

Lecture-discussion

Time

30 minutes

Process

1. Based on their experience with their respective VFA articles of association, ask the participants to discuss their own understanding of the articles of group association and their importance.

2. Summarizes the important points of the discussion and give a brief lecture using the learning notes.

Learning notes

What are articles of group association?

The articles of group association is a written document made by the Group that provides detailed information about the Group, some of which are not specified in the Group by-laws (e.g. Group area of operations, term of existence, names and representatives of member-VFAs and names of Group officers).

Why is the articles of group association important?

It is a requirement for securing Group official recognition.
It provides more detailed information about the Group.
It complements the Group by-laws.
It specifies the area of operations or forest management unit for Group certification.
Lesson 1.11.5.2
Content of the articles of group association

Objectives

At the end of the lesson, the participants should be able to enumerate and explain the content of the articles of group association.

Methods

Lecture-discussion

Materials

Handout on sample articles of group association, large brown sheets of paper, marker, and masking tape

Time

45 minutes

Process

1. Based on their experience in writing their respective VFA articles of association and the outputs in lessons, ask the participants to discuss the content of the articles of group association and draw-up an outline.

2. Summarize the important points of the discussion and give a brief lecture using the learning notes and handout to fill the gaps in participants’ understanding.

Learning notes

What are the contents of the articles of group association?

The contents of the articles of group association include:

- Legal basis or references for the formation and operations of the Group
- Name of the Group
- Policy statements
- Objectives and purposes
- Area of operations
- Term of existence
- Group membership
- Names and representatives of member-VFAs
- Names of Group officers
- Signatories
Lesson 1.11.5.3
Writing the articles of group association

Objectives
At the end of the lesson, the participants should be able to write and explain the articles of group association.

Methods
Lecture-discussion

Materials
Handout on sample articles of group association

Time
Two hours

Process
1. Based on their experience in writing their respective VFA articles of association and the output of lesson 1.11.5.2, ask the participants to discuss and write the articles of Group association.

2. Review the output together with the participants and make suggestions for improvements as needed.
Lesson 1.11.5.4
Writing the Group treasurer’s certification

Objectives

At the end of the lesson, the participants should be able to explain the importance and content of the Group treasurers certification and write the Group treasurer’s certification.

Methods

Lecture discussion and guided group exercise

Material

Handout on sample Group treasurer’s certification

Time

30 minutes

Process

1. Discuss with the participants the importance and contents of the Group treasurer’s certification using the learning notes.

2. Ask the participants to write the Group treasurer’s certification.

3. Review the output and make suggestions for improvements as needed.

Learning notes

What is a Group treasurer’s certification?

It is a document that shows the financial status of the association at the time of its application for Group official recognition.

Who prepares the Group treasurer’s certification?

It is prepared and signed by the Group treasurer and attested to by the Group.

When is a Group treasurer’s certification prepared?

It is prepared when the Group applies for official recognition.
Why is a Group treasurer’s certification important?

a. It reflects the financial status of the Group at the time of its application for official recognition. Later, this information can be useful as a basis in assessing the growth and stability of the Group in terms of its financial resources.
b. It helps promote transparency in the operations of the Group.
c. It is a requirement for Group official recognition.

What is the content of a Group treasurer’s certification?

The Group treasurer’s certification shows the present financial status of the Group. It states the total amount received and kept by the Group treasurer. It also describes the source(s) of funds such as Group membership fees and annual contribution.
Course 1.12
Sharing of costs and benefits in village forestry

Introduction

The course is aimed at strengthening the capabilities of (a) PAFO trainers in training state forestry staff and villagers on how the village forestry costs and benefits can be shared among villagers and between the organization for village forestry (VFC, VFA, IVFC, GVFs, etc.) and the state; (b) DAFO extension workers in facilitating and assisting villagers on how the village forestry costs and benefits can be shared among themselves and between the organization and the state; and (c) villagers on how the village forestry costs and benefits can be shared among themselves and between the organization and the state.

The lessons are designed to provide the participants with a better understanding of the costs and benefits in village forestry and how these can be shared among the villagers and between the state and the organization for village forestry.

Contents

The course consists of two modules:

Module 1.12.1 - Sharing the costs of village forestry- In this module, the participants learn the costs related to the functions of the organization for village forestry and the state forestry agencies (i.e. DAFO and PAFO) and how the costs can be shared among villagers and between the state and the organization for village forestry.

Module 1.12.2 – Sharing the benefits of village forestry- The participants acquire a better understanding of the benefits from village forestry and how the benefits can be shared among villagers and between the state and the organization for village forestry.
Module 1.12.1
Sharing the costs of village forestry

Introduction

This module is aimed at providing the participants with a better understanding of the costs related to the functions of the organization for village forestry and state forestry agencies and the options in sharing the costs among villagers and between the state and the organization for village forestry.

Contents

The module consists of four lessons:

Lesson 1.12.1.1 Costs related to the functions of the organization for village forestry- In this lesson, the participants gain a better understanding of the inputs or resources needed to undertake the activities of the organization and what costs it has to bear in the use of these inputs or resources.

Lesson 1.12.1.2 Costs related to the functions of the state forestry agencies- the participants learn the inputs or resources needed by the state forestry agencies to provide village forestry support to villagers and what costs the Government has to bear in the use of these inputs and resources.

Lesson 1.12.1.3 Sharing costs among the members of the organization for village forestry -The participants acquire a better understanding of the options and select the scheme of sharing the costs of village forestry among the members of the organization.

Lesson 1.12.1.4 Sharing costs between the state and the organization for village forestry- The participants learn the options and select the scheme for sharing the costs of village forestry between the state and the organization for village forestry.
Lesson 1.12.1.1
Costs related to the functions of the organization for village forestry

Objective

At the end of the lesson, the participants should be able to explain the inputs or resources needed to undertake the activities of the organization and what costs it has to bear in the use of these inputs or resources.

Methods

Lecture-discussion

Materials

Village forestry flipcharts including the one showing the different village forestry activities

Time

One hour

Process

1. Review with the participants the different village forestry activities and determine what inputs or resources are needed to undertake these village forestry activities?

2. Select as examples a few activities and identify the inputs or resources needed to implement them. For each of these activities discuss what costs the organization has to bear in the use of these inputs or resources.

For example, inventory of the village forests:

Resources needed:
- Basic manpower (inventory crew members)
- Management (members of the organization who provide information and training to other villagers)
- Equipment (tree diameter, distance measuring devices, calculator, etc.)
- Materials (survey sheets, etc.)

4. Identify internal and external sources of inputs or resources.
Lesson 1.12.1.2
Costs related to the functions of the state forestry agencies

Objectives

At the end of the lesson, the participants should be able to explain the inputs or resources needed for state forestry agencies (e.g. DAFO and PAFO) to provide support to villagers in village forestry and what costs the government has to bear in the use of these inputs or resources.

Methods

Lecture-discussion

Materials

Village forestry flipcharts including the one showing the different village forestry activities

Time

One hour

Process

1. Discuss with the participants of the different village forestry activities the inputs or resources needed to undertake these activities.

2. Select as examples a few activities and the inputs or resources needed to implement them. For each of these activities discuss what costs the state forestry agencies have to bear in the use of these resources.

For example, inventory of the village forests:

Role of PAFO- train the village forest inventory teams
Role of DAFO- provide technical support to village forest inventory teams

Inputs/resources needed:
- Manpower (e.g. PAFO and DAFO staff)
- Transport facilities
- Equipment used in training (tree diameter, distance measuring devices, calculator, etc.)
- Materials used in training (survey sheets, etc.)

3. The state has to provide salary, daily allowance, and other benefits to the PAFO and DAFO staff. During training, as well as when providing technical support during village work, the state has to provide transport facilities, equipment and
materials. The cost of all these is among the costs that the state has to bear in fulfilling its roles and functions in village forestry.

4. The above are direct costs. There are also indirect costs. For example, the cost of running the different forestry offices in the district, province, etc., and the cost of spreading the practice of village forestry.
Lesson 1.12.1.3
Sharing costs among the members of the organization for village forestry

Objective

At the end of the lesson, the participants should be able to discuss options and select the scheme for sharing the costs of village forestry among the members of organization for village forestry.

Methods

Lecture-discussion

Time

Two hours

Process

1. Ask the participants to meet as a group.

2. Start the group discussions by listing (writing down) issues concerning cost sharing. For example:

   • Should costs be shared equally among the members of the organization? Why or why not?
   • Should members who participate in village forestry work be paid wages? If not, how should they be rewarded for their participation, bearing in mind that not all the members are able to make the same contribution? Take the case of village forest inventory, for example. An option is to monitor these contributions so that there is information for compensating the participating members in the future when the organization has the financial capacity.
   • By whom and how should costs be monitored?

3. Ask the groups to discuss options for resolving each of the issues listed. There may not be enough time to discuss all of the issues. However, this is not necessary since the group can discuss these issues in their own village. It is important that they practise the exercise by means of the discussion.

4. Ask one group to present their outputs and for the other groups to comment on the similarities and differences among the group outputs.

5. The trainer-facilitator summarizes and highlights the important points of the discussions.
Lesson 1.12.1.4
Sharing costs between the state and the organization for village forestry

Objective

At the end of the lesson, the participants should be able to discuss how the costs of village forestry should be shared between the state and organization for village forestry.

Methods

Lecture-discussion

Time:

Two hours

Process

1. Ask the participants to meet as a group.

2. Start the group discussions by listing issues concerning cost sharing between the organization and state. For example:
   - Should costs be shared equally between the organization and the state? Why or why not?
   - Is it necessary to compensate the state (e.g. DAFO and PAFO) for the costs that it incurs? Why or why not?
   - How will the state derive its compensation (e.g. royalty for timber in the future, taxes from villagers, from future commercial activities)?

3. Ask the groups to discuss options for resolving each of the issues listed. There may not be enough time to discuss all of the issues; however, this is not necessary since the group can discuss these issues in their own village. It is important that they practise in going through the process.

4. Ask one group to present their outputs and for the other groups to comment on the similarities and differences among the group outputs.

5. The trainer-facilitator summarizes and highlights the important points of the discussions.
Module 1.12.2
Sharing the benefits of village forestry

Introduction

This module is aimed at providing the participants with a better understanding of the costs and benefits of village forestry and how these be shared among members of the organization for village forestry and between the state and the organization.

Contents

The module consists of three lessons:

Lesson 1.12.2.1 Benefits from village forestry- In this lesson, the participants gain a better understanding of the different kinds of tangible and intangible benefits from village forestry.

Lesson 1.12.2.2 Sharing the benefits among the members of the organization for village forestry- The participants learn the options and select the scheme for sharing the benefits of village forestry among members of the organization.

Lesson 1.12.2.3 Sharing the benefits between the state and the organization for village forestry- The participants learn the options and select the scheme for sharing the benefits of village forestry between the state and the organization.
Lesson 1.12.2.1
Benefits from village forestry

Objective

At the end of the lesson, the participants should be able to explain the different kinds of tangible and intangible benefits from village forestry.

Methods

Lecture-discussion

Materials

Village forestry flipcharts including the one showing the different village forestry activities

Time

One hour

Process

1. Ask the participants to list the different kinds of benefits from village forestry. Start from the tangible benefits and proceed to the intangible ones.

   Examples of tangible benefits:
   - Wood for household consumption
   - Fodder for livestock
   - Timber for commercial purposes
   - Resin, bamboo, and other non-timber forest products for household use or sale

   Examples of intangible benefits:
   - Protection provided by the forests to the village water supply
   - Opportunities for outdoor recreation and practice of worship
   - More livable environment

   Indirect benefits from village organizing for village forestry
   - Training (skills development)
   - Employment in village forestry activities
   - Funds for village development

2. Ask the participants how each of the benefits may be measured.

3. The trainer-facilitator summarizes and highlights the important points of the discussions.
Lesson 1.12.2.2
Sharing benefits among the members of the organization for village forestry

Objectives

At the end of the lesson, the participants should be able to:

1. list the need for financial resources to operate the organization and assist in the social and economic development of the village; and
2. explain the schemes for sharing benefits of village forestry among the members of the organization.

Methods

Lecture-discussion

Time

Two hours

Process

1. Review the list of tangible and intangible benefits (output of lesson 1.12.2.1).

2. For each item in the list, discuss whether the benefits should be shared equally among the members, or enjoyed as needed by the members. Discuss possible rules to be developed on how the benefits may be shared.

3. A significant share of the organization comes in the form of money. Who owns this money? How should the money be used and its use monitored? For example:

   • Compensation for officers and members who participated in village forestry activities
   • Meet the operating costs of the organization
   • Used as reserves for future expenses in village forestry
   • Used for welfare purposes
   • Used for investments
   • Used for village development projects (e.g. school building, irrigation system, water supply, health center, road improvements)

4. Who should make decisions on the use of the money of the organization?

5. How will the villagers and village administration be informed of how money has been spent?
Lesson 1.12.2.3
Sharing benefits between the state and the organization for village forestry

Objective

At the end of the session, the participants should be able to discuss the options for sharing the benefits of village forestry between the state and the organization for village forestry.

Methods

Lecture-discussion

Time

Two hours

Process

1. List and discuss the issues concerning sharing of benefits between the state and the organization. For example:

   • Should benefits be shared equally between the organization and the state? If not, what kind of sharing arrangement does the organization propose? Why?
   • How should the state be compensated for the costs incurred in village forestry? Refer to the discussion in lesson 1.12.1.4 on costs sharing between the state and the organization.
   • How should the DAFO and PAFO share in the benefits of village forestry?
   • How should the rest of the national community share in the benefits of village forestry? (For example, the royalties paid for timber provide financing for services provided by the government to the national community.)

2. Review the list of tangible and intangible benefits (output of lesson 1.12.2.1)

3. For each item in the list, discuss whether the benefit is solely for the organization or may be shared with the state. In this case, how should the benefits be shared?

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Course 1.13
Village forestry support to village development

Introduction

The course is aimed at strengthening the capability of (a) PAFO trainers in training villagers in preparing village development project plans; (b) DAFO extension workers in facilitating and providing assistance to villagers in preparing village development project plans; and (c) villager in preparing village development project plans.

The lessons are designed to introduce the participants to the role of village forestry in the overall development of the village. The participants acquire the knowledge and skills in identifying, prioritizing, preparing and approving village development project plan(s) to be supported out of the revenue from village forestry.

See figure 1 for the procedures for supporting village development projects through village forestry.

Contents

This course consists of two modules:

Module 1.13.1 Role of village forestry in the overall development of the village- In this module, the participants learn the relationship between village forestry and village development.

Module 1.13.2 Preparing and approving a village development project plan- The participants acquire the knowledge and skills in identifying, prioritizing, selecting, implementing, and approving village development projects to be supported out of the revenue from village forestry.
Figure 1. Procedures for supporting village development projects through village forestry

**Village Forestry Association**
- Generates forest management revenue and prepares rules on use of income for village development

**Village Administration**
- Approves VFA rules on use of income for village development
- Prepares criteria and procedures for identifying and selecting village development projects and to discuss with village assembly
  - **Nouay** households and women’s groups identify and discuss possible village development projects based on agreed criteria
- Coordinates **nouay** and women’s groups in discussing and consolidating results
- Discusses results with village assembly and reach a consensus on village development project(s); coordinates with district authority
  - Confirms availability of funds or includes costs in VFA annual budget
  - Prepares village development project plan(s) and discusses with VFA policy committee re: availability of funds
  - Discusses the plan(s) with village assembly and forwards it to district authority for approval
  - Allocates VFA funds for village development based on approved plan(s)

**District Authority**
- Provides guidance in relation to district on overall village development plan
  - Approves the village development project plan(s)
- Monitors and evaluates the implementation of approved village development project(s)
- Establish and manage a village development fund
- Implements and manages approved village development project(s)
Module 1.13.1
Role of village forestry in the overall development of the village

Introduction

This module is aimed at providing the participants with a better understanding of the relationship between village forestry and village development. The participants acquire a better understanding of the relationship between the village forestry association and the village administration in the overall development of the village.

Contents

The module consists of two lessons:

Lesson 1.13.1.1 Understanding the relationship between village forestry and village development- In this lesson, the participants gain a better understanding of the relationship between village forestry and village development.

Lesson 1.13.1.2 Village forestry support to village development- The participants learn the different means by which village forestry can support the development of the village. The participants gain a better understanding of the relationship between the village forestry association and the village administration in the overall development of the village.
Lesson 1.13.1.1
Understanding the relationship between village forestry and village development

Objective

At the end of the lesson, the participants should be able to explain the relationship between village forestry and village development.

Methods

Lecture-discussion

Materials

Village forestry flipchart, large brown sheets of paper, marker and masking tape

Time

45 minutes

Process

1. Using the village forestry flipchart, ask the participants to discuss their own understanding of the relationship of village forestry to the overall development of the village.

2. Summarize the discussion and give a brief lecture using the learning notes.

Learning notes

What is the relationship between village forestry and village development?

The relationships between village forestry and village development are:

- The main objectives of village forestry are: (a) sustainable forest management, and (b) improvement of the socio-economic conditions of villagers.

- The sustainable management of forests through village forestry results in the improvement of the environment that supports village livelihood.

- Village forestry generates forest management revenue that can be used to finance village development projects and activities (e.g. construction or improvements of farm to market roads, bridges, schools, water pumps, temples).
Lesson 1.13.1.2
Village forestry support to village development

Objectives

At the end of the lesson the participants should be able to:

1. discuss the village forestry support to village development; and
2. explain the relationship between the village administration and village forestry association in regard to village development.

Methods

Lecture-discussion

Materials

Approved VFA by-laws and rules on use of revenue for village development

Time

One hour

Process

1. Ask the participants to review and discuss the provisions of the approved VFA by-laws relating to village development and the approved VFA rules on use of income for village development using the following guide questions:

   • What are the provisions of the VFA by-laws relating to village development?
   • What are the main provisions of the approved VFA rules on use of income for village development?
   • What are the main means of VFA support to village development?
   • What is the relationship of the VFA and village administration in the overall development of the village?

2. Summarize the discussion and give a brief lecture using the learning notes.
Learning notes

What are the provisions of the approved VFA by-laws pertinent to village development?

The provisions of the approved VFA by-laws pertinent to village development are:

**Article 2** Objectives—“to improve the socio-economic condition of villagers…”

**Article 33** Use of income—“the VFA general assembly approves every year the allocation of VFA funds to be use for … village development”

What are the main provisions of the approved VFA rules on use of income for village development?

The approved VFA rules on the use of income for village development specifies the procedures for identifying, evaluating, selecting, planning, implementing, and managing village development projects or activities to be funded out of the VFA income.

What are the main means of VFA support to village development?

The main support of the VFA to village development includes:

a. sustainable management of forests that provides the necessary environment to support village livelihood; and

b. generation of revenue from forest management that is used to support village development projects and activities in the village.

What is the relationship between the village administration and the VFA in the overall development of the village?

As mandated by law, the village administration is responsible for the overall development of the village (health, education, infrastructure, forestry, agriculture, livelihood, etc). The VFA is not involved in the planning, implementation, and management of village development projects except in areas relating to forestry.

The village forestry association is under the jurisdiction of the village administration and is responsible for the sustainable management of forests. In addition, the VFA generates revenues from village forest management of which a portion is allocated into a village development fund that is managed and used by the village administration to support village development projects approved by the district authorities concerned.
Module 1.13.2  
Preparing and approving a village development project plan

Introduction

This module is aimed at providing the participants with the knowledge and skills needed in developing the criteria and procedures for identifying and selecting possible village development projects. The participants also acquire the knowledge and skills required to prepare and gain approval for a village development project plan.

Contents

The module consists of three lessons:

Lesson 1.13.2.1- Criteria and procedures for identifying and selecting possible village development projects to be supported by village forestry revenue- In this lesson, the participants gain knowledge and skills in discussing and reaching a consensus on the criteria and procedures for identifying and selecting possible village development projects to be supported out of the village forestry revenue.

Lesson 1.13.2.2- Guidelines and procedures for preparing and getting approval for a village development project plan- The participants learn the guidelines and procedures for preparation and approval of a village development project plan.

Lesson 1.13.2.3- Writing a village development project plan- The participants acquire the knowledge and skills needed in writing a village development project plan.
Lesson 1.13.2.1
Criteria and procedures for identifying and selecting possible village development project(s) to be supported by village forestry revenue

Objective

At the end of the lesson, participants should be able to discuss and reach a consensus on the criteria and procedures for identifying and selecting possible village development project(s) to be financed out of the revenue from village forestry.

Methods

Lecture-discussion and consensus building

Materials

Large brown sheets of paper, marker, and masking tape

Time

Two hours

Process

1. Ask the participants to discuss their own criteria and procedures for identifying and selecting possible village development project(s) to be supported by village forestry income.

2. Summarize the discussion and give a brief lecture using the learning notes.

3. Ask the participants to reach a consensus on the criteria and procedures for identifying and selecting possible village development project(s) to be funded out of the village forestry income.

Learning notes

What are some of the criteria for identifying and selecting possible village development project(s) to be supported by the village forestry income?

Some of the criteria for identifying and selecting possible village development project(s) include:

- It is based on the prioritized need of the villagers.
- It will benefit the greatest number of villagers. (In the case of a village cluster or group, it will benefit all the concerned villages in the cluster or group.)
- It requires minimum cost that is within the available VFA funding.
• It requires equipment, materials, skills, and manpower that are readily available in the village with limited external support services or resources needed.
• It can be completed within a reasonable period of time (e.g. not more than a year).
• It directly or indirectly supports village forestry operations (e.g. water pumps, access road, village pharmacy).
• It promotes village cooperation and provides an opportunity for the villagers to work together closely.
• It complements (not duplicates) the overall village development plan of the district.

**What are the procedures for identifying and selecting possible village development project(s) to be funded out of the VFA revenue?**

The procedures in identifying and selecting village development project(s) are:

**Step 1.** The village administration drafts the criteria for identifying and selecting village development project(s) that will be funded out of the village forestry revenue.

**Step 2.** The village administration meets with the village assembly to discuss and reach consensus on the criteria for identifying and selecting village development project(s).

**Note:** In the case of a village cluster or group, joint meetings of village administrations and village assemblies in the cluster or group are necessary.

**Step 3.** The village administration requests heads of *nouays* to discuss and prioritize with the households under their jurisdiction possible village development projects based on the agreed upon criteria for identifying and selecting village development project(s). A women’s group is also formed in each *nouay* to discuss and prioritize possible village development projects.

**Step 4.** The village administration coordinates and consolidates the results of the *nouay* and women’s group discussions on possible village development projects.

**Step 5.** The village administration presents the results of the *nouay* and women’s group discussions of possible village development projects to the village assembly. A consensus is reached on the village development project(s) that will be funded out of the village forestry revenue.

**Note:** In the case of a village cluster or group, all the village administration and village assembly in the cluster or group have to jointly reach a consensus on the village development project(s) that will be funded out of the village forestry income.
What are some examples of possible village development projects or activities that may be supported through VFA income?

Some examples of possible village development projects or activities that may be supported through VFA income include:

- Livestock banks
- Fertilizer and rice banks
- Wells or water pumps
- Livestock vaccinations
- Fish ponds
- Village pharmacy
- Small water impounding dam or other small irrigation schemes
Lesson 1.13.2.2
Guidelines and procedures in preparing and approving a village
development project plan

Objective

At the end of the lesson, the participants should be able to explain the guidelines,
requirements, and procedures in preparing and getting approval for a village
development project plan.

Methods

Lecture-discussion

Materials

Large brown sheets of paper, marker, masking tape

Time

Two hours

Process

1. Ask the participants to discuss their own experiences in planning a specific
village development project or activity in the village using the following guide
questions:

- What guidelines did the villagers use in planning a village development
  project or activity in the past? (if any)
- What did the village need in planning said village development project or
  activity?
- What was the procedure in planning said village development project or
  activity?
- Who led the village development project planning exercise? Who were
  involved?
- What were the results of the said village development project planning
  exercise?

2. Summarize the discussion and give a brief lecture using the learning notes.
Learning notes

What are some of the guidelines in preparing and getting approval for a village development project plan?

• It should be participatory with inputs from the greatest number of villagers (including women).
• It should be transparent.
• It should be simple and easily understood.
• It responds to the needs and requirements of a village cluster or group as may be applicable.
• It complements and not duplicates the district’s overall village development plan.
• Each village development project has a corresponding written plan prepared by the village administration and approved by the concerned district authorities.

What are some of the requirements for preparing and getting approval for a village development project plan?

• The provision of necessary training, extension, and other support services in formulating a village development project plan
• Coordination with the overall district village development plan
• Full cooperation of the villagers (including women)
• Information on available external technical services or financial support (as needed)
• In the case of a village cluster or group, a consensus must be reached by all the village administrations and village assemblies in the cluster or group

What are the procedures in preparing and getting approval for a village development project plan?

Step 1 Based on the selected village development project(s), the village administration coordinates with the district authorities for guidance.

Step 2 The village administration drafts a plan for each of the selected village development projects (see sample) and discusses it with the village assembly.

Step 4 The village administration discusses the plan with the VFA policy committee to confirm availability of funds. If funds are not available, the VFA policy committee considers the costs in the preparation of the VFA annual work plan and budget.

Note: The funding for village development is allocated to and managed by the village administration.
Step 5  The village administration forwards the village development project plan(s) to the district chief for approval through the concerned district office. (For example, a village school project has to be endorsed by the district education office, a village pharmacy by the district health office, and a village irrigation system by the district agriculture and forestry office.)

Note: In the case of a village cluster or group, all the village administration and village assembly in the cluster or group have to reach consensus on the village development project(s) that will be funded out of the village forestry revenue. (An example is the construction of a school or road that will benefit all the villages in the cluster or group.)
Lesson 1.13.2.3
Writing a village development project plan

Objective

At the end of the lesson, the participants should be able to prepare a village forestry project plan.

Methods

Lecture-discussion and guided group work

Materials

Handout on sample format of a village development project plan

Time

Three hours

Process

1. Discuss with the participants the format and contents of a village development project plan using the learning notes and handout.

2. Based on their experience in planning past village development activities (if any), ask the participants to write a village development project plan (e.g. establishment of water pumps).

3. Review the output and make suggestions for improvements as needed.
Learning notes

What are the contents of a village development project plan?

The contents of a village development project plan include:

- **Project title** (e.g. Bakkhoumkham Village Water Pump Project, Nalaviang-Kokthaleu Village Road Improvement Project, Nonbokeo-Nonsombatt Village School Project)
- **Objectives** (e.g. number of water pumps to be established, length of road to be improved, number of families to be benefited)
- **Description and schedule of activities** (includes list of activities, project implementation and maintenance, schedule, and persons responsible)
- **Estimated cost** (includes description of items, quantity unit costs, total costs and source of funds, e.g. village contribution, VFA, district, other organizations)
- **Location map** (showing the approximate location of the project in relation to the villages affected or benefited)
- **Signatories** (signatories are the village chief and the head of a concerned district office, e.g. district education office in the case of a village school project and the head of the district). In the case of a village cluster or group, all the village chiefs in the cluster or group affix their signatures and official seals.
1. Project title: ____________________________________________________________

2. Objectives: ____________________________________________________________________________________________

3. Description and schedule of activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Schedule (months)</th>
<th>Persons Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6 7 8 9 10 11 12</td>
<td></td>
</tr>
</tbody>
</table>

4. Estimated cost

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit cost</th>
<th>Total cost</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment, Materials, and Tools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Location map showing the approximate location of the village development project(s) in the village(s)

Prepared by: ___________________ Recommending approval: ___________________ Approved by: ___________________

Village Chief(s): ___________________ District office concerned: ___________________ District chief: ___________________

Date: ________ Date: ________ Date: ________

Note: In the case of a village cluster or group, all the village chiefs in the cluster or group sign and affix their official seals.

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Course 1.14
Participatory monitoring and evaluation in village forestry

Introduction

The course is aimed at strengthening the capabilities of (a) PAFO trainers in training DAFO staff and villagers in conducting participatory monitoring and evaluation, (b) DAFO extension workers in facilitating and assisting villagers in conducting participatory monitoring and evaluation, and (c) villagers in conducting participatory monitoring and evaluation.

The lessons are designed to introduce the participants to participatory monitoring and evaluation and its importance. The participants learn the procedures in conducting participatory monitoring and evaluation in village forestry.

Contents

This course consists of two modules:

Module 1.14.1 - Understanding participatory monitoring and evaluation-
In this module, the participants acquire a better understanding of participatory monitoring and evaluation and its importance.

Module 1.14.2 - Conducting participatory monitoring and evaluation in village forestry-
The participants are provided with the knowledge and skills in conducting participatory monitoring and evaluation in village forestry.
Module 1.14.1
Understanding participatory monitoring and evaluation

Introduction

This module is aimed at providing the participants with adequate understanding of participatory monitoring and evaluation and its importance.

Contents

The module consists of two lessons:

Lesson 1.14.1.1- Introduction to participatory monitoring and evaluation- In this lesson, the participants acquire a better understanding of participatory monitoring and evaluation.

Lesson 1.14.1.2- Importance of participatory monitoring and evaluation- The participants learn the importance of participatory monitoring and evaluation.
Lesson 1.14.1.1
Introduction to participatory monitoring and evaluation

Objective

At the end of the lesson, the participants should be able to explain participatory monitoring and evaluation.

Methods

Lecture discussion

Materials

Sample drawings of traditional and participatory monitoring and evaluation

Time

45 minutes

Process

1. Distribute the handouts on sample drawings on monitoring and evaluation and ask the participants to discuss and analyze them using the following guide questions:

   • What are the differences between the two drawings? (Drawing A- a bus traveling on a rainy day with the bus windows closed, and Drawing B- a bus traveling on a sunny day with the bus windows widely open.)
   • Which of the two drawings is better for the passengers in keeping track of their travel? e.g. Where they are? Are they on the right track? How far are they from their destination? How long will it take to reach their destination?

2. Summarize the important points of the discussion and relate this to participatory monitoring and evaluation of village forestry activities in the village. Give a brief lecture to introduce participatory monitoring and evaluation to the participants using the learning notes.

Learning notes

What is monitoring?

Monitoring means keeping regular records of group discussions, actions and finances, and checking that actions are taken according to the plan.

What is evaluation?

Evaluation means analyzing the group’s records in order to assess whether the group is achieving its objectives and to identify possible improvements.
What is participatory monitoring and evaluation (PME)?

Participatory monitoring and evaluation is the systematic recording and periodic analysis of information that has been determined and recorded by villagers themselves with the assistance of outsiders (i.e. state forestry staff) as necessary. It belongs to the villagers not outsiders. It promotes self-reliance among villagers. The villager decide: (a) what to monitor; (b) what indicators to use; (c) how they will collect the information; (d) who takes responsibility for doing it; and (e) how to use the collected information.
Handout no. 1.14.1.1 Drawing A - Traditional monitoring and evaluation
Handout no. 1.14.1.2 Drawing B: Participatory monitoring and evaluation
Lesson 1.14.1.2
Importance of participatory monitoring and evaluation

Objective

At the end of the lesson, the participants should be able to explain the importance of participatory monitoring and evaluation in village forestry.

Methods

Lecture discussion

Time

45 minutes

Process

1. Based on the output in lesson 1.14.1.1, ask the participants to discuss the importance of participatory monitoring and evaluation in village forestry.

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

Learning notes

What is the importance of participatory monitoring and evaluation in village forestry?

• Helps determine whether the village forestry activities in the village are progressing as planned. It tells about the progress or status of village forestry activities (including problems). It is a basis for preparing progress reports on the implementation of village forestry activities in the village.

• Suggests what parts of the village forestry management plan, annual operations plan, or annual work plan, need adjustments or changes to improve the operations and performance of the organization.

• The villagers can learn from past mistakes and increase their self-reliance. It is a learning process for villagers.
Module 1.14.2
Conducting participatory monitoring and evaluation in village forestry

Introduction

This module is aimed at providing the participants with knowledge and skills in conducting participatory monitoring and evaluation in village forestry.

Contents

The module consists of four lessons:

Lesson 1.14.2.1- Procedures in conducting participatory monitoring and evaluation in village forestry- In this lesson, the participants learn the procedures in conducting a participatory monitoring and evaluation session.

Lesson 1.14.2.2- Choosing the objectives and indicators for participatory monitoring and evaluation in village forestry- The participants gain knowledge and skills in choosing the objectives and indicators for participatory monitoring and evaluation in village forestry.

Lesson 1.14.2.3- Selecting and using appropriate information gathering tools for participatory monitoring and evaluation in village forestry- The participants acquire knowledge and skills in selecting and using appropriate information gathering tools for participatory monitoring and evaluation in village forestry.

Lesson 1.14.2.4- Gathering and analyzing the information needed for participatory monitoring and evaluation and presenting the results – The participants acquire knowledge and skills in gathering and analyzing the information needed for participatory monitoring and evaluation and presenting the results to villagers.
Lesson 1.14.2.1
Procedures in conducting participatory monitoring and evaluation in village forestry

Objective

At the end of the lesson, the participants should be able to explain the procedures in conducting participatory monitoring and evaluation in village forestry.

Method

Lecture-discussion

Time

Two hours

Process

1. Based on their experience in monitoring and evaluating village development activities, ask the participants to discuss their own understanding of the procedures in conducting participatory monitoring and evaluation.

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

Learning notes

What are the procedures in conducting a participatory monitoring and evaluation?

Step 1 Discuss the objectives for participatory monitoring and evaluation (PME)- Discuss the importance, purpose, and benefits of participatory monitoring and evaluation so that villagers can realize and decide for themselves whether it is useful for them. The villagers should fully understand and appreciate the need for participatory monitoring and evaluation and its relevance to village forestry in terms of determining (a) the progress in the implementation of planned village forestry activities, and (b) the impact of village forestry on their forest resources and on their living condition. The villagers should appreciate how PME can be a useful learning tool to improve their effectiveness in planning, implementing, and managing village forestry and other related activities in the village.

Step 2 Review the objectives and activities on village forestry- Review the objectives and activities as indicated by the villagers in their different plans (e.g. village land use plan, village forest management plan, annual operations plan, and annual work plan)

Step 3 Establish the indicators for participatory monitoring and evaluation- After the review of the objectives and activities, discuss what indicators or key information are needed to assist villagers in determining if the activities are implemented as planned and in assessing the impact of these activities on their forest resources and their living conditions.
condition. Indicators can be quantitative or qualitative. Indirect indicators can also be used (e.g. housing condition). The indicators or information to be gathered can be supported by a series of guide questions.

**Step 5 Decide which information gathering tool is to be used**- For each indicator or set of key information, choose the most suitable information gathering tool(s) which are familiar to villagers. Maximize the use of appropriate PRA and other participatory learning tools.

**Step 6 Decide who will do the monitoring and evaluation**- Develop criteria for villagers who will undertake participatory monitoring and evaluation. Identify villagers who meet the criteria, i.e. knowledge, skills, experience, interest, and time. PME requires villagers with adequate understanding and knowledge of village forestry activities. It will also require a considerable amount of time and effort from villagers.

**Step 7 Provide training on participatory monitoring and evaluation**- It is essential that the villagers who will be involved in PME are adequately trained and provided with the knowledge and skills needed to conduct PME. PAFO trainers provide PME training to villagers.

**Step 8 Conduct participatory monitoring and evaluation**- The villagers decide when to undertake participatory monitoring and evaluation. Based on the indicators or key information (supported by a series of guide questions) villagers conduct participatory monitoring and evaluation. The DAFO extension worker facilitates and provides assistance to the villages in conducting a PME.

**Step 9 Analyze and present results**- Analyze the PME information gathered. Present and discuss results (using graphical, tabular, or pictorial presentations) to the village assembly and the village administration.

**Step 10 Use participatory M&E results**- Use participatory M&E results in decision-making, planning, implementation, and management of village forestry and related activities. Based on the PME results, revise any part of the organization’s plan or operation in order to improve its performance and gain achievement of goals and objectives.
Lesson 1.14.2.2
Choosing the objectives and indicators for participatory monitoring and evaluation in village forestry

Objective
At the end of the lesson, the participants should be able to explain the procedures for choosing the objectives and indicators for participatory monitoring and evaluation in village forestry.

Methods
Lecture discussion, guided group work, and peer tutoring

Materials
Sample of approved village land use plan, village forest management plan and annual operations plan, VFA annual work plan and by-laws

Time
Two hours

Process
1. Ask the participants to discuss their own understanding of how to choose PME objectives and indicators in village forestry.
2. Summarize the important points of the discussion and give a brief lecture using the learning notes.
3. Ask the participants to review the sample of an approved village land use plan, village forest management plan and annual operations plan, VFA annual work plan and VFA by-laws using the following guide questions:
   - What are the main objectives of the plan(s)?
   - What are the key activities needed to achieve these activities?
4. Based on the review, ask the participants to choose the objectives and indicators for participatory monitoring and evaluation.
5. Review the outputs and make suggestions for improvement as needed.

Learning notes
What are the procedures for choosing PME objectives and indicators in village forestry?

Step 1 The VFA policy committee and village administrations review the approved village land use plan, village forest management plan, annual operations plan, VFA annual work plan and VFA by-laws.
Step 2 Based on the review, the VFA policy committee and village administration discuss and reach a consensus on the objectives of village forestry (e.g. sustainable management of village forests and improvement of socio-economic conditions of villagers) and the key activities needed to achieve these objectives.

Step 3 The VFA policy committee and village administration discuss the need, importance, and benefits of participatory monitoring and evaluation of key activities in relation to the achievement of the village forestry objectives.

Step 4 The VFA policy committee and village administration discuss and reach consensus on the objectives of participatory monitoring and evaluation (e.g. to determine progress in the implementation of planned village forestry activities; to determine the impact of village forestry activities on the forest and the villagers; and to learn from the lessons and experience in the implementation of village forestry activities).

Step 5 Based on the above discussions and agreements reached, the VFA policy committee and village administration discuss and reach a consensus on the indicators (quantitative or qualitative) or key information to be gathered to help determine if activities are implemented as planned and to assess the impact of these activities on the forest and the villagers. Examples of these indicators or key information are: (a) area of forest inventories, (b) number of villagers trained, (c) number of villagers employed, (d) volume of timber sold, (e) amount to timber sales, (f) changes in the quantity of important NTFP collected, (g) changes in forest fire occurrences and illegal logging, and (h) number of village development projects established. If helpful to the villagers, these PME indicators may be supplemented by guide questions. For example:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Guide questions</th>
</tr>
</thead>
</table>
| Changes in the quantity of important NTFP collected | • Is the volume of important NTFP collected increasing or decreasing?  
  • What are the reasons for the increase and decrease in volume of NTFP collected? |
| Number of villagers trained       | • How many villagers were trained this year?  
  • How many women were trained this year?  
  • What are the kinds of training that villagers received? |
Step 6  The VFA policy committee and the village administration discuss and reach a consensus on the appropriate timing and frequency of collecting the needed information relating to the PME indicators. For example:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Timing and frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of villagers trained</td>
<td>Monthly, quarterly or yearly</td>
</tr>
<tr>
<td>Changes in forest fire occurrences</td>
<td>Yearly</td>
</tr>
</tbody>
</table>

Step 7  The VFA policy committee and village administration present and discuss the objectives and indicators for participatory monitoring and evaluation with the village assembly.

Note: In the case of a village cluster or group, all the village administrations in the cluster or group meet with the VFA policy committee to agree on the PME objectives and indicators. Discussions with village assembly can be done by the respective village administrations.

The DAFO extension worker facilitates and provides technical assistance (as needed) to villagers in choosing the PME objectives and indicators.
Lesson 1.14.2.3
Selecting and using appropriate information gathering tools for participatory monitoring and evaluation in village forestry

Objective

At the end of the lesson, the participants should be able to explain how to select and use appropriate gathering tools for participatory monitoring and evaluation in village forestry.

Methods

Lecture discussion, demonstration, practicum, and peer tutoring

Materials

List of PME objectives and indicators selected by the villagers

Time

Two hours

Process

1. Using the list of PME objectives and indicators, ask the participants to list and discuss the appropriate tools in gathering the needed information. Ask the participants to explain how to use the information gathering tools.

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

3. Demonstrate to the participants how to use of the selected information gathering tools. Ask the participants to practice using the selected information gathering tools.

4. Make suggestions on how to improve the use of selected information gathering tool as needed.

Learning notes

What are the guidelines in selecting and using appropriate PME information gathering tools in village forestry?

Based on the selected PME indicators and key information that need to be gathered, the VFA policy committee and village administration discuss and select the appropriate PME information gathering tools most appropriate for the indicators. The following are some guidelines in selecting the appropriate PME information gathering tools:

- Simple, efficient, and effective means of gathering the information needed
- Villagers are familiar and possess the knowledge and skills in using the tools
- Requirements (e.g. human and financial resources, time, materials, equipment) for using the tool is minimal and readily available in the village
• It fits well with how the villagers communicate in the village (e.g. oral and visual communication)

What are some examples of PME information gathering tools?

The tools include semi-structured interviews, participatory mapping, trend diagramming, direct observation, review of existing records and documentation, drawings, ranking, participatory forest inventory, participatory post harvest assessment, and others.

Note: The uses of above PME information gathering tools are discussed in the other sections of the Village Forestry Training Manual.

What are the roles of PAFO trainers and DAFO extension workers in participatory monitoring and evaluation?

The PAFO trainers train the villagers in selecting and using appropriate PME information gathering tools. The DAFO extension worker facilitates and provides assistance to villagers in selecting and using the appropriate PME information gathering tools.
Lesson 1.14.2.4
Gathering and analyzing the information needed for participatory monitoring and evaluation and presenting the results

Objective

At the end of the lesson, the participants should be able to explain the procedures for gathering and analysing the information needed for participatory monitoring and evaluation and presenting the results to villagers.

Methods

Lecture-discussion, demonstration, practicum and peer tutoring

Materials

List of PME objectives and indicators chosen and appropriate PME information gathering tools selected and sample of a village forest inventory result

Time

Two hours

Process

1. Based on the list of PME objectives and indicators chosen and appropriate PME information gathering tools selected, ask the participants how they will gather and analyze the information needed for PME and present the results to the villagers.

2. Summarize the important points of the discussion and give a brief lecture using the learning notes.

3. Distribute the sample of village forest inventory result and ask the participants how they can present the result in a format that can be easily understood by the villagers (drawing, chart, etc).

4. Review the output(s) and make suggestions for improvements as needed.

Learning notes

What are the procedures for gathering and analyzing the information needed for PME in village forestry?

Step 1 Based on the indicators (including timing and frequency) and information gathering tools for PME selected, the VFA management committee selects capable villagers and form PME team(s) to conduct the PME. The selected villagers should possess a good understanding of the village forestry activities and PME indicators. They should also have adequate knowledge and skills in using the appropriate PME information gathering tools. They should have the interest and time to conduct participatory monitoring and evaluation.
Step 2 The PAFO trainers train the PME teams in gathering and analyzing the information needed for participatory monitoring and evaluation and presenting the results to villagers. The importance, purpose, Expected outcome(s), activities, indicators, information gathering information, and schedule of PME work are also discussed.

Step 3 The PME teams collect the information needed for participatory monitoring and evaluation using appropriate PME information gathering tools.

Step 4 The PME teams analyze the information collected. They present the PME results to the village administration and village assembly using drawings and graphical, tabular, and other types of visual presentations.

Step 5 The VFA and village administration uses the PME results in initiating the necessary adjustments in the VFA plans or procedures to improve performance and help ensure the attainment of the goals and objectives in village forestry.

The DAFO extension worker facilitates and provides assistance to the PME teams in gathering and analyzing the information needed for participatory monitoring and evaluation and in presenting the PME results to the villagers.

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Course 2.1
Preparing for the delineation of the forest management unit

Introduction

The course is aimed at helping the forestry staff develop the capability to work with village teams in preparing maps and other information which are needed to delineate the forest management unit (FMU). Before forest management can take place, the FMU has to be defined first. To be able to do this activity, the forestry staff must develop the skills to interpret maps and aerial photographs, conduct ground surveys, and use the resulting information to prepare further maps and other information (e.g. village boundary maps, land-use maps).

The lessons are addressed mainly to the needs of the forestry staff. When their turn comes to train the village teams, the forestry staff should be able to tailor the lessons to the parts that are most essential for the village teams to know, particularly the steps to be followed to do the work.

Contents

This course consists of four modules:

Module 2.1.1 Preparing the forestry staff - In this module, the participants review their understanding of village forestry, learn the concept of an FMU, and are provided with the basic knowledge and skills to use and handle information needed to delineate the FMU, such the interpretation of aerial photographs and use of a GPS device. The forestry staff is in turn expected to impart this knowledge and these skills to the village teams.

Module 2.1.2 Identifying suitable forests and managers of the FMU - Topographic maps and aerial photographs are checked, assistance from villagers is asked, and field checks are made to identify suitable forests and managers of the FMU.

Module 2.1.3 Village boundary demarcation - The participants learn the steps to be followed in demarcating the boundary of a village and how to organize the work.

Module 2.1.4 Village land-use mapping - The participants learn the steps to be followed in mapping land uses and how to organize the work.

Note: Modules 2.1.1 and 2.1.2 are required for all forestry staff involved in training or working with villagers in forest management. Modules 2.1.3 and 2.1.4 are offered if FMUs are defined based on single villages or village clusters. In this case, it is necessary to define the boundaries of the village or cluster and to learn further about the land uses in the village or cluster by means of land-use mapping.
Module 2.1.1
Preparing the forestry staff

Introduction

The module is aimed at:

1. Strengthening the understanding of the forestry staff about village forestry as a form of forest management and the FMU as the object and site of forest management;

2. Strengthening the technical capability of the forestry staff to do work related to delineating the FMU.

First the participants review their understanding of village forestry. Then they learn the concept of an FMU and the different ways by which it may be defined. Finally they learn about basic things about aerial photography, and acquire basic skills on aerial photo-interpretation and using a GPS device. The participants need these skills to be able to impart them to village teams and to work with them in delineating the FMU.

Contents

The module consists of four lessons:

Lesson 2.1.1.1 Village forestry and the forest management unit - In this lesson the participants learn about village forestry as a form of forest management and the different ways of defining a forest management unit.

Lesson 2.1.1.2 Interpretation and use of aerial photographs - The participants learn the basics of aerial photography to enable them to readily understand aerial photo-interpretation. Then they learn how to interpret aerial photographs and how they could impart this skill to village teams which will do the actual land-use mapping.

Lesson 2.1.1.3 Use of a GPS device - The participants learn about GPS, the use of a GPS device in obtaining the coordinates of a point on the ground, and marking that point on the map.

Lesson 2.1.1.4 Fieldwork on aerial photo interpretation - The participants visit the place and features included in the aerial photograph that they interpreted in Lesson 2.1.1.2 and compare what is seen on the ground with the features in the aerial photograph.
Lesson 2.1.1.1
Village forestry and the forest management unit

Objectives

At the end of the lesson, the participants should be able to:
1. Understand and explain village forestry as a form of forest management;
2. Learn about the forest management unit (FMU) and the different ways of defining it;
3. Understand the need to develop some technical skills necessary to delineate an FMU.

Method

Group discussion

Materials

Poster featuring village forestry activities, large brown sheets of paper, marker, and masking tape

Time

Two hours

Process

1. Review the definition of village forestry. Discuss the roles of villagers and forestry staff in village forestry. Use the following guide questions:
   a. What is the primary objective of village forestry?
   b. What land and forest resources are the objects of management in village forestry?
   c. Who are the forest managers? What are their roles?
2. Review the activities of village forestry using the poster (see Figure 1 for the contents of the poster). Focus on the relationship between village boundary demarcation, land-use mapping, and the subsequent activities to define and allocate land for forest management. Use the following guide questions:
   a. Who owns the forest resources found near the villages?
   b. Who can allocate land for different uses, e.g. farming, forest management? What role do villagers play in land allocation?
   c. What activities must be done to allocate land for forest management?
   d. Is it necessary to define the boundaries of villages in order to allocate land for management?
   e. Is it necessary to map the present land uses in order to allocate land for management?
3. Discuss with the participants the concept of a forest management unit. Use the following guide questions:
   a. What land uses can comprise the FMU?
   b. What range of sizes can an FMU have?
   c. Is it necessary to identify the forest managers before delineating the FMU?
4. Discuss with the participants the skills that the forest manager or planner must have in order to allocate land for and delineate the FMU.
Figure 1 – Aspects and activities of a village forestry model (as piloted in two provinces)

<table>
<thead>
<tr>
<th>First year</th>
<th>Second year</th>
<th>Third year and onwards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Village organizing</strong></td>
<td><strong>Forest management</strong></td>
<td><strong>Entrepreneurial development</strong></td>
</tr>
<tr>
<td>Forestry extension</td>
<td>Knowing about the village resource base by: village boundary demarcation land-use mapping forest inventory forest growth assessment</td>
<td>Identifying and planning a small-scale project</td>
</tr>
<tr>
<td>Participatory rural appraisal for organizing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core group formation</td>
<td>Planning, e.g.</td>
<td></td>
</tr>
<tr>
<td>Basic core group operations</td>
<td>• village land-use planning</td>
<td>Implementing a small-scale project</td>
</tr>
<tr>
<td>Strengthening core group operations</td>
<td>• village forest management planning</td>
<td>Basic enterprise management, e.g.</td>
</tr>
<tr>
<td></td>
<td>• annual operations planning</td>
<td>• Financial management and operating VFA funds</td>
</tr>
<tr>
<td></td>
<td>Signing the village forest management contract</td>
<td>• Records, other aspects</td>
</tr>
<tr>
<td><strong>Second year</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessing options for a formal organization</td>
<td></td>
<td>Continuing organizational development</td>
</tr>
<tr>
<td>Formally forming the village forestry association (VFA)</td>
<td></td>
<td>Strengthening linkages with different agencies</td>
</tr>
<tr>
<td>Registering the VFA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strengthening the VFA</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Third year and onwards</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuing organizational development</td>
<td></td>
<td>Continuing development of entrepreneurial skills</td>
</tr>
<tr>
<td>Strengthening linkages with different agencies</td>
<td></td>
<td>Developing forest-based enterprises</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Learning notes**

*Review of the basic concept of village forestry*

Village forestry is a partnership between the state and the village in the management of forest resources. The state is represented by the forestry administration (e.g. PAFO, DAFO) and in practice by the forestry staff. The village is represented by an organization created by and working under the village administration and in practice by the village committees and teams working in forestry related activities. Hence, the forest managers are the partners, i.e. the state together with the village or villages. As partners they share in the costs and benefits of forest management. Costs include the value of the work done; benefits include the value of the products and services that result from or are enhanced by the work. Work is shared according to the capability of the managers. Participation is promoted in all kinds of work, but ordinarily the forestry staff undertake the supervisory work and most of the planning work, while the village teams do most of the fieldwork, although they can participate in planning work more and more as their skills develop.
Forest management is the primary objective of village forestry, and the forest management unit is the object of management. The FMU consists of all kinds of land and forest resources allocated for forest management. By law, land and forests are owned by the national community with the state acting on its behalf; hence, the state can allocate these resources for use by villagers. As end users, villagers are major players in deciding what land uses a piece of land in a village can have. To make land-use decisions wisely, information on the current use of the land, such as that available in land-use maps, is very useful.

**The forest management unit**

Land and forests allocated for forest management may have a wide range of sizes. The most important consideration in deciding the size is the capacity of the manager to use the resource properly. Hence, it is important to know the manager first before deciding how large a forest area to allocate for management.

In principle a managed forest can be very small. For example, forest gardens one to five hectares in size and managed by households are common and are an important forestry sub-sector in some countries, e.g. Indonesia and Sri Lanka. A managed forest can also be very big, e.g. more than a hundred thousand hectares, such as those given as concessions in many tropical countries. Of course it can be medium-sized as well, as in the case of those managed by a village or group of villages. For example, in the case of Lao PDR, under village forestry, where the state-village partnership may include from one to several villages, the forest management unit for a village may cover say 500-2500 hectares, for a cluster of villages say 2500-5000 hectares, and for a group of several villages say 10,000-20,000 or more hectares.

Delineating a forest management unit, as will be shown in subsequent courses, modules, and lessons, requires information, such as that found in boundary demarcation, land-use mapping, and land-use planning. Since the village is the focus of village forestry, it is important to know the extent of the village. However, although knowing the village boundaries is important, it is necessary only if the FMU is based on single villages.

The village is more than a place where the villagers settle. It extends to the farms, forests, rivers and mountains. People from a village normally have their own places in the forest where they collect different products, apart from the other places that people from other villages go. Thus in most cases the full extent of the land that an individual village uses is clearly known among villagers. In a few cases, people from different villages share the same forests. In these cases it is no longer possible to draw a line separating one village from the others. The villagers usually do the most practical thing, which is to agree to have a common set of boundaries. Two to four villages may form a village *cluster* in this manner.

It is not only important to know the extent of the village or cluster, but also the extent of the land and forest resources of the village or cluster. Land-use mapping provides this information and it is done immediately following village boundary demarcation. The resulting land-use map is the basic source of information needed to plan how land should be used and to identify the forests to be managed.
Lesson 2.1.1.2
Interpretation and use of aerial photographs

Objectives

At the end of the lesson, the participants should be able to interpret aerial photographs and use them together with topographic maps in work related to village boundary demarcation and land-use mapping.

Methods

Discussion, lecture, and group and individual exercises

Materials

Black-and-white and colour infrared photographs
Mirror stereoscope, lens stereoscopes, and magnifying glass
Large brown sheets of paper, marker, and masking tape

Time

Three hours

Process

1. Discuss with the participants how aerial photographs are taken and what their properties are, e.g. scale, color, stereoscopy. Continue the discussion and talk about the interpretation of aerial photographs.

2. Conduct group exercises on interpretation of stereopairs as follows: Divide the participants into two groups. Ask one group to practise interpreting stereopairs of black-and-white and colour infra-red photographs with the help of stereoscopes. Ask the other group to study the different features and objects seen from both types of photographs. The objects and their interpretation are marked on the photograph beforehand. Ask the two groups to take turns in doing the two exercises.

3. Conduct individual exercises on interpretation using a magnifying glass. Ask the participants to interpret the objects and features that have been marked and numbered on the black-and-white and colour infrared photographs. The places where these objects are found will be visited during the field trip the following day.

4. Resume the discussion and talk about how to train village teams on aerial photo-interpretation.
Learning notes

Taking aerial photographs

Aerial photographs are usually taken from airplanes from altitudes ranging from 1 to 9 km with a special type of camera. For instance, the flying altitude from the ground in the two aerial photography surveys of Dong Sithouane was 3 km. The photographs are taken along parallel flying lines. In stereoscopic photography, the ground cover areas of successive photographs overlap by about 60% (the forward overlap) in the direction of the flying line. In so called mono-photography the forward overlap is about 20 - 30%. The ground areas of adjacent flying lines overlap by 20 - 40%, which is called the side overlap.

Aerial photography should be conducted in good, sunny weather without clouds, vapour, or dust. The sun's elevation should be at least 35 degrees, otherwise the shadows of trees are too long and strong. The best time to take aerial photographs in the Lao PDR is normally from the beginning of December to the end of January.

After the photography, the film is developed and the actual photographs, so called contact prints (or enlargements if needed), are taken from each negative. Contact prints are typically 23 cm x 23 cm. During the developing process, information on the photography is added in the margins of each photograph, e.g. name of the photography, date, scale, number of the flight line (run), and number of the photograph. An index map of the aerial photography showing the position of the flight runs and center of each photograph is prepared usually at a scale of 1:100,000. The index map is very important for finding the correct photographs from a given area, because the aerial photography may have produced hundreds of photo prints. In order to protect the photographs from damage during field use, they are often laminated with a plastic film.

Errors in aerial photographs

Use of aerial photographs is essential in forestry. Aerial photographs have much more information on forests, vegetation and soils than conventional maps. But aerial photographs also have some disadvantages compared to maps. Aerial photographs are central projections, because all points on the ground are projected to the negative through the lens in the camera. The central projection causes errors in the margins of the aerial photographs. Maps are so-called orthogonal projections and no such errors occur. When interpreting aerial photographs, only the central area of the photograph should be utilized, because the errors are smallest at the center.

The scale of the aerial photograph is the ratio of the focal length of the lens in the camera to the mean level of the terrain. The distance from the camera to a mountaintop is shorter than to a valley bottom. This means that the scale of the mountaintop is larger than that of the valley bottom. If the airplane was tilted during the exposure of the film, the photograph is also tilted and causes errors in the scale. Because of wind, differences in the elevation on the ground (e.g. mountains and valleys), and for other reasons, the flying altitude varies. This causes further errors in the scale of the photographs.
**Stereoscopy**

Most aerial photography taken for forestry is stereoscopic, enabling a three-dimensional viewing of the photographs. Three-dimensional interpretation is possible because of the overlap of successive photographs, i.e. each object on the ground is being photographed from two different positions. By looking simultaneously at two successive photographs with the help of a stereoscope, it is possible to see the area in three dimensions, i.e. to recognize the depth of the view. The interpreter of the aerial photographs feels as if he/she is above the area and looking at a real three-dimensional landscape from the perspective of a bird.

In stereoscopic interpretation, aerial photographs exaggerate about 2-4 times the differences in elevation between terrains or heights of trees. This makes it easier to discern different figures on the photographs.

Stereoscopes help in the interpretation of aerial photographs. When using lens stereoscopes, the two adjacent photographs in the same flight line that are looked at together must be placed so that the distance of the corresponding points on the two photographs is the same as the distance between the eyes, about 6 cm. Stereoscopic interpretation is not always necessary, e.g. if the aerial photographs are good and the accuracy of the interpretation does not need to be very high, like in participatory mapping. A magnifying glass is very useful in interpreting mono-photographs.

**Colours of aerial photographs**

The colours of aerial photographs depend on the film and filter used in the camera. The colours and tones on the photographs may also vary depending on the direction of the sun, changes of the weather, and timing of the flight. On a black-and-white photograph, different features on the ground appear in various tones of grey, from black to white. For instance, roads and bare land are light grey or white, forest is grey, and water is black. Colour photographs show natural colours of the features on the ground.

A colour infrared photograph gives unnatural colours, but distinguishing different objects on the photograph is easiest compared to other types of photographs. Experience has shown that colour infrared photographs give the best results in photo-interpretation for forestry purposes.

**Colours on the infra-red photograph**

<table>
<thead>
<tr>
<th>Object on the field</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest and other green vegetation</td>
<td>Red</td>
</tr>
<tr>
<td>Dead trees</td>
<td>Light green</td>
</tr>
<tr>
<td>Bare soil and rocks</td>
<td>Blue/blue-green</td>
</tr>
<tr>
<td>Roads</td>
<td>Light blue/white</td>
</tr>
<tr>
<td>Rice paddy (after harvesting)</td>
<td>Green/blue</td>
</tr>
<tr>
<td>Water</td>
<td>Black/blue</td>
</tr>
<tr>
<td>Water-logged area</td>
<td>Dark tone of the colour of the object</td>
</tr>
</tbody>
</table>
Steps in aerial photograph interpretation

Generally, the interpretation of a feature proceeds in the following steps:
1. Recognizing and locating the feature (e.g. forest area)
2. Identifying it (e.g. dry dipterocarp forest)
3. Delineating it (i.e. drawing on the photograph the boundaries of the identified land use)

The interpretation should proceed from easily distinguished features (e.g. roads, streams, rice paddies) to difficult features (e.g. border between a production forest and a degraded forest). A skillful interpreter uses several criteria when analysing the properties of different sub-areas of the terrain, e.g. size of the object, colour, tones, shadows, texture, pattern, and location.
Training villagers on aerial photo-interpretation

1. Acquaint the village team with the aerial photographs and maps. Then ask them to identify on the photographs different features and land-use categories, such as:
   - Landmarks of the borders of the village
   - Roads and tracks
   - Rivers, streams, main seasonal streams, lakes, ponds, and other water sources
   - Location of the village, number of households
   - Type and location of farmlands (gardens, rice paddies, grazing areas of the cattle, burned over areas for grazing, etc.)
   - Type and location of the forests:
     - Stream buffer zones and other protection forests
     - Mixed deciduous and dry evergreen forest area (high forest)
     - Dry dipterocarp forest area
     - Degraded forests
     - Non-productive land areas (treeless areas), etc.
   - Use of different forests:
     - NTFP areas
     - Fuel wood sources
     - Timber (house construction, etc.) sources
     - Recently logged-over areas
     - Forest fires and other disasters
   - Annually flooded areas
   - Sacred places
   - Other important areas and places (e.g. fish ponds)

2. Start the photo-interpretation. At first the easily discernable features, such as the village settlement area, roads, streams and other features, are marked on the photographs. The streams should be located with the help of the topographic map, because sometimes it is difficult to distinguish them on the aerial photographs. The stream buffer zone is 50 metres on both sides of the stream. All markings on the aerial photographs should be done with non-permanent ink pens. It is recommended that roads be drawn with red, streams with blue, boundaries of the village territory with green and compartments and other objects with black. Markings on the photographs can be erased with cotton or toilet paper damped in isopropyl alcohol.

   If stereo pairs of the photographs are available, they can be interpreted stereoscopically using a pocket stereoscope. This helps to discern different features on the photographs. Normally interpreting mono-photographs by means of a magnifying glass is sufficient.

3. The forest areas are demarcated into compartments depending on the forest type, stand density (based on canopy cover), species composition, management objectives (e.g. production forest, conservation forest, sacred forest), and natural boundaries of the terrain. The forest compartments should be large blocks, but they can include small areas of other land use or features, e.g. non-productive land. Blocks which are too small result in a mosaic-like composition of compartments, which would be difficult to handle.

4. Identify the main use of the compartment. A comprehensive set of land-use categories is given below. The villagers will have different kinds of descriptions and
classifications for their land resources and uses. The classification given below should be only one basis. The final classification will be developed with villagers using local terminology. For example, the land-use categories usually found in Dong Sithouane are:

- High forest (mix deciduous and dry evergreen forests)
- Dry dipterocarp forest (good site)
- Dry dipterocarp forest (poor site)
- Sacred forest
- Stream buffer zone
- Rice paddy
- Village settlement area

A comprehensive set of land-use categories

1. Forest land uses

1.1 Production forests
   1.1.1 Low dry evergreen forests (<200 masl)
   1.1.2 Upper dry evergreen forests
   1.1.3 Low mixed deciduous forests (<200 masl)
   1.1.4 Upper mixed deciduous forests
   1.1.5 Mixed deciduous and coniferous forests
   1.1.6 Dry dipterocarp forests (good site)
   1.1.7 Dry dipterocarp forests (poor site)
   1.1.8 Natural conifers

1.2 Regeneration and degraded forests
   1.2.1 Low-stocked natural high forests (<50% canopy closure)
   1.2.2 Old fallow
   1.2.3 Young fallow with grass or shrubs
   1.2.4 Degraded follow with imperata
   1.2.5 Low-stocked dry dipterocarp forests (<30% canopy closure)
   1.2.6 Bamboo forests

1.3 Protection forests
   1.3.1 Soil protection zone (mountainous areas, steep land)
   1.3.2 Stream buffer strips
   1.3.3 Buffer zone for settlements
   1.3.4 Head watersheds
   1.3.5 Wetlands

1.4 Conservation forests
   1.4.1 Biodiversity conservation forests
   1.4.2 Sacred forests
   1.4.3 Scenic and outdoor recreation areas
   1.4.4 Sites with historical importance
   1.4.5 Parks

1.5 Forest plantations (various species groups)
2. Agricultural land uses
   2.1 Paddy
   2.2 Garden
   2.3 Tree crops
   2.4 Other upland crops
   2.5 Pasture/grazing land
   2.5 Others

3. Human settlements and social infrastructures (village area for houses, temples, schools, service centers, roads, and others)

4. Rivers, streams, ponds, lakes, and other waterways

5. Non-productive and other waste land
Lesson 2.1.1.3
Use of a GPS device

Objectives

At the end of the lesson, the participants should be able to:
1. Know some of the uses of the GPS device.
2. Determine coordinates of points on the ground by using a GPS device.

Methods

Discussion, lecture, demonstration, and supervised individual work

Materials

Large brown sheets of paper, marker, and masking tape

Time

One hour

Process

1. Discuss with the participants the concept of a satellite-based navigation system and the development of the global positioning system.
2. Study with the participants the GPS device, its uses and features.
3. Ask each participant to use the GPS device to determine the coordinates of points.
4. Ask each participant to convert coordinates from the World Geodetic System 1984 (WGS 84) map datum to the Krasovskie datum that is used in Lao topographic maps. Ask them to mark points taken on the ground in the topographic map.

Learning notes

Global positioning system (GPS)

GPS is a satellite-based navigation system developed by the U.S. Department of Defence. GPS navigation uses satellite ranging to determine position in relation to satellites orbiting the earth. By knowing the position of 3 to 4 satellites and calculating various time differences between the transmitted signals, a GPS device can determine its own position.

GPS device

There are several kinds of GPS devices available on the market. The Garmin GPS device used by FOMACOP has a positioning accuracy of about 15 meters, but often the signals are disturbed and the accuracy decreases to 100 meters. Because of the disturbance, at
least 2 -- and preferably 3 to 5 -- measurements must be taken at each point, and the average coordinates are then used.

A GPS device is very sensitive to the canopy cover. It can not get into contact with satellites if there are trees or other objects that disturb the connection. Fortunately, most of the border points between villages are in open places, such as rocky areas, corners of fields, etc. If the border point is covered by trees and the GPS device cannot be used, an open area in the neighbourhood should be found, and GPS measurements taken there. Then the compass bearing and distance from this point to the border point are measured. If this cannot be done, the point must be determined on the map with the help of streams, other features of the terrain, and aerial photographs. In any case, each border point must be located and marked on the aerial photograph.

**Converting from one coordinate system to another**

The GPS device gives geographical latitude and longitude coordinates in degrees and minutes using the World Geodetic System 1984 (WGS 84) map datum. On the other hand, the Lao topographic map with a scale of 1:100,000 has a different map datum called the Krasovskie map datum.

Krasovskie coordinates can be calculated from WDS coordinates by subtracting 0.018' from the latitude and adding 0.020' to the longitude. For example, suppose the average of 3 readings from a GPS device gives a WGS coordinate of N 16°15.677' and E 105°35.345'. To convert to the Krasovskie datum, correct the latitude and longitude as follows:

\[
\begin{align*}
\text{N} \ 16^\circ 15.677' - 0.018' &= N \ 16^\circ 15.659' \\
\text{E} \ 105^\circ 35.345' + 0.020' &= E \ 105^\circ 35.365'
\end{align*}
\]

**Locating points on the map**

To locate the point in the above example on the map, first locate the point without the minute decimals, i.e. N 16°15' and E 105°35'. Convert the minute decimals, i.e. N 0.659 and E 0.365 to centimetres on the map as follows: In Dong Sithouane, one minute in latitude corresponds to 1,852 meters on the ground or 1.852 cm on the map of 1:100,000 scale, while one minute in longitude corresponds to 1,779 meters on the ground or 1.779 cm on the map. Therefore:

\[
\begin{align*}
\text{N} 0.659' \times 1.852 &= 1.22 \text{ cm} \\
\text{E} 0.365' \times 1.779 &= 0.65 \text{ cm}
\end{align*}
\]

Thus the desired point on the map is located 1.22 cm North and 0.65 cm East from the located point.
Lesson 2.1.1.4
Fieldwork on aerial photograph interpretation

Objectives

At the end of the lesson, the participants should be able to see how features seen in an aerial photograph actually appear on the ground.

Methods

Fieldwork

Materials

Sample aerial photograph with some points of interest marked

Time

Four hours

Process

1. Go with the participants to the field at the places indicated in the photograph used in Lesson 2.1.1.2 (individual exercise).

2. Ask them to check their interpretation against the actual situation on the ground.

3. Ask them to check what objects can be seen in the infrared photographs better than in the black-and-white photograph, and vice versa. Ask them which photograph is better for land-use mapping.
Module 2.1.2
Identifying suitable forests and managers of the FMU

Introduction

The module is aimed at strengthening the capability of the forestry staff to identify forests that are suitable for management as an FMU, as well as villages that work together with DAFO in managing the FMU. The forestry staff utilize what they have learned in Module 2.1.1 to use topographic maps and aerial photographs for assessing which forests can be managed for commercial production or used for other purposes. They learn further to check the information found in topographic maps and aerial photographs against the actual conditions on the ground.

Contents

The module consists of three lessons:

Lesson 2.1.2.1 Assessing the suitability of forests for management by means of maps and aerial photographs - In this lesson the participants learn to identify forest areas that will be checked further on the ground for their suitability for management as an FMU.

Lesson 2.1.2.2 Assessing on the ground the suitability of forests for management - The participants learn to check their initial assessment of forests by asking knowledgeable villagers and conducting a field check.

Lesson 2.1.2.3 Identifying suitable forests for management and forest management partners - The participants learn to identify suitable forests for management and the villages that would be the forest management partners of DAFO.
Lesson 2.1.2.1
Assessing the suitability of forests for management by means of maps and aerial photographs

Objectives

At the end of the lesson, the participants should be able to identify forest areas that will be checked further on the ground for their suitability for management as an FMU.

Methods

Discussion and group work

Materials

A set of aerial photographs corresponding to forest areas indicated in the 1:100,000-scale topographic map and non-permanent markers for use with the aerial photographs.
Large brown sheets of paper, markers, and masking tape.

Time

Two hours

Process

1. Discuss with participants the objectives and desired outputs of the activity.

2. Proceed by familiarizing the participants with the sites, which are the subject of the assessment, by means of a set of aerial photographs.

3. Divide the participants into groups of 3 to 5 persons. Assign a site for each group to work with and provide each group with the necessary materials.

4. Ask each group to study the topographic map and to check each aerial photograph. Ask them to mark on each photograph blocks of forests with similar conditions, e.g. dense forests, logged over forests, forests on steep terrain, etc., as seen from the aerial photograph.

5. Ask each group to list villages to be visited in order to check the information on the ground. The location and names of the villages are found in the topographic map.
Lesson 2.1.2.2
Assessing on the ground the suitability of forests for management

Objective
At the end of the lesson, the participants should be able to cross check information from aerial photographs with the knowledge of villagers and conditions seen on the ground.

Method
Discussion

Materials
List of villages to visit, topographic map, set of aerial photographs
Large brown sheets of paper, marker, and masking tape

Time
One hour

Process
1. Discuss with the participants the preparation to be done before going to the village.

2. Discuss with the participants the steps to be followed when in the village to seek the assistance of villagers to cross-check the conditions of forest compartments as seen on the aerial photographs with their knowledge.

3. Discuss with the participants the steps to be followed to further cross-check the conditions of forest compartments as seen on the aerial photographs and verified with villagers by conducting a ground assessment.

Learning notes
Steps to be followed to assess on the ground the suitability of forests for management:

1. **Conferring with DAFO.** The assessment team confers with DAFO regarding the activity and chooses as many DAFO staff as necessary to assist in the fieldwork, noting that the team may be configured into a few sub-teams depending on the size of the forests to be checked.

2. **Conferring with villages located near the potential forest areas.** Logging operators normally use villagers as guides during logging operations. Hence, some villagers are familiar with the location of forest areas that have been logged. To gain access to this knowledge, the following are undertaken:
   a. The team makes a courtesy call with the village administration, explaining the objectives of the activity.
   b. Villagers who know about past logging activities are invited to a meeting.
c. During the meeting the topographic map and aerial photographs are laid on the floor or ground, and the staff shows the villagers how to interpret the information available in the map and aerial photographs.

d. Once the villagers have become familiar with the map and aerial photographs, they are then asked about present and previous logging activities in nearby forests, marking the areas that have been recently logged on the map.

e. Two or three villagers are hired as guides for further assessment work in the forest.

3. **Open traverses of the forest areas.** The team is configured into sub-teams. Forest areas to be checked are assigned to each sub-team. The sub-teams go to each of the assigned areas to check their conditions, i.e. whether:
   a. Heavily logged and should be closed to logging for many years;
   b. Logged-over but fast regenerating and will be commercially viable within ten years;
   c. Not heavily logged and is still commercially viable;
   d. Has not been logged and is definitely commercially viable.

   A GPS device is used if possible to determine the coordinates of corners and boundary points of the area. The points are marked on the map.
Lesson 2.1.2.3
Identifying suitable forests for management and forest management partners

Objective

At the end of the lesson, the participants should be able to identify suitable forests for management and the villages that would be the forest management partners of DAFO.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

Thirty minutes

Process

1. Discuss with the participants the procedure for tentatively delineating forest compartments as parts of the FMU.

2. Continue by discussing the procedure for identifying villages as potential forest management partners.

Learning notes

Procedure for tentatively delineating FMUs and identifying villages as forest management partners:

Tentatively delineating FMUs

The PAFO assessment team formulates options for delineating the priority forest areas into a number of FMUs based on the following criteria:
1. Range of possible FMU sizes, e.g. a thousand hectares to tens of thousand hectares;
2. Availability and location of villages relative to the forest;
3. Complexity of subsequent work, noting that:
   a. The more FMUs there are, the longer it would take for the staff to do village organizing, planning, and other work;
   b. The more villages there are in an FMU, the more complex would be the organizational structure, and the more likely conflicts between participating villages are to arise.

Identifying villages as potential forest management partners

The team prepares for each FMU a list of villages to visit and to invite to participate as forest management partners.
Village work

The team, accompanied by representatives from DAFO, visits each village at least once to solicit the villagers’ participation and to confer with the village administration regarding collaborative work with other villages. More visits are made to finalize the grouping of villages that will participate as management partners in each FMU. Possible options and their advantages and disadvantages are as follows:

1. **Single village.** It is easier to work with a single village than with several villages in an FMU. However, if FMUs are based on single villages there may be too many of them to handle for DAFO, e.g. in terms of access infrastructure and logistics. Nevertheless, for large forest areas with only a few villages, it would be preferable to form FMUs based on single villages.

2. **Village cluster.** A village cluster is the result when two or more neighboring villages opt to have a common set of village boundaries while still maintaining separate village administration. A village cluster is only slightly more complex to handle than a single village. The advantages and disadvantages of a single-village FMU also apply in the case of an FMU based on a village cluster.

3. **Group of villages.** Unlike a village cluster, the villages in a group assigned to an FMU may be far apart. An FMU based on a group of villages would be relatively large, e.g. 5,000 to 50,000 hectares; consequently, there could conceivably be only a few of them in a district. However, dealing with a group of villages is more complicated than dealing with a single village in terms of obtaining common agreements and managing inter-village conflicts.
Module 2.1.3
Village boundary demarcation

Introduction

This module is aimed at strengthening the capability of the forestry staff to assist village teams in village boundary demarcation. The forestry staff learn the steps to be taken to demarcate the boundaries of a village, resolving any conflicts that may arise, and preparing the documents needed for the approval of the village boundaries. They also learn how to organize the work with the village teams.

Contents

The module consists of two lessons:

Lesson 2.1.3.1 Stages in village boundary demarcation. In this lesson the participants learn the process of village boundary demarcation step-by-step.

Lesson 2.1.3.2 Resolving boundary conflicts between villages. The participants learn what they should do to resolve any boundary conflicts that may occur between villages.
Lesson 2.1.3.1
Stages in village boundary demarcation

Objective

At the end of the lesson, the participants should be able to understand the various steps to be followed in conducting village boundary demarcation.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape

Time

Two to three hours

Process

1. Discuss with the participants the preparation to be done before going to the village.

2. Discuss with the participants the steps to be followed when in the village to assist the village team in doing village boundary demarcation.

3. Discuss with the participants the fieldwork and the process of formalizing inter-village agreements on the location of the village boundaries.

4. Discuss with the participants the preparation of documents and the process of getting approval of the village boundaries by the authorities.

Learning notes

Preparatory work

1. Preparation of extension materials. The village forestry flipcharts used in extension work is also used in this activity.

2. Acquisition of equipment, supplies, and materials. The PAFO/DAFO team should prepare the necessary aerial photographs, topographic maps, GPS device, hand compass, 50-m chain, protractor, tracing paper, rulers, erasers, pencils, etc., before the fieldwork.

In the village

1. Establishment of rapport with district and village authorities. The PAFO/DAFO training team should meet with district officers and key villagers to discuss the work and approach to be used.
2. **Formation of the village team.** The village team should include two to four persons from each village sharing common boundaries. Villagers who know most about the traditional village boundaries are preferred in the composition of the team.

3. **Orientation and training of the village team.** The PAFO/DAFO training team should orient the village team on the purpose of village demarcation using the village forestry flipcharts. This will be followed by the training of the village field team on:
   a. Interpretation and use of aerial photographs and topographic maps;
   b. Use of field instruments such as GPS device, hand compass, 50-m tape, etc.;
   c. Various steps to be followed, including the fieldwork, resolution of boundary conflicts between adjacent villages, and seeking approval of the village boundaries.

4. **Provision of equipment, supplies, and materials.** The necessary equipment, supplies, and materials will be provided to the village field team. The equipment will be loaned to the village field team and should be returned to the PAFO/DAFO team after their use.

**Fieldwork**

After their training, the village team continues the work to completion. A DAFO staff member should be assigned to monitor the work and assist the village team. The village team, together with the DAFO staff member, undertakes the fieldwork by:

1. Drawing a sketch map showing the trial village or cluster boundaries and other features (see attached handout);
2. Marking preliminary cornerpoints on the topographic map and, if available, on the aerial photographs or satellite imageries (see attached handout);
3. Consulting with the villages concerned on the preliminary boundaries and cornerpoints;
4. Examining and checking the boundaries in the field, and if possible determining the coordinates (e.g. by taking GPS measurements) therein and describing each cornerpoint;
5. Preparing a preliminary village or cluster boundary map (see attached handout);
6. Discussing the preliminary map with the villages concerned and asking the village chiefs to sign a village boundary agreement on behalf of villages. Any boundary conflicts are resolved. If the resolution of conflicts comes to a standstill, the assistance of district authorities is sought to settle these matters.

**Preparation of documents**

The documents (see attached handout) include:

1. A cover sheet signed by the village chief requesting the authorities for approval of the village boundaries;
2. A finalized map of the village boundaries showing clearly the boundaries and cornerpoints together with their description;

3. A table of technical description of the boundaries and cornerpoints. It is not necessary that the technical description contains a complete set of bearings and distances along the boundaries. However, including in the technical description the coordinates of cornerpoints (taken using a GPS device) would be useful especially in resolving any boundary conflicts that may arise in the future. If a GPS device is not available, a verbal description of permanent features of the cornerpoints will suffice for the moment;

4. Agreements among villages concerned, signed by their respective village chiefs, on the location and description of the boundaries and cornerpoints;

**Getting the approval of the authorities**

The documents are submitted for approval by the provincial governor, through the district authorities (head of DAFO and district governor) and the head of PAFO. The village or each member-village in a cluster are provided a copy of the approved documents.

**Informing the villagers**

A village assembly meeting should then be conducted to inform the villagers of the approved boundaries, which everybody must respect when conducting land-use related activities in the future. The villagers are also reminded to get a prior authorization from the village chief before opening new lands for farming.
Handout no 2.1.3.1.1 Sample of a sketch village boundary map
Handout no. 2.1.3.1.2 Photocopy of an aerial photograph with border points marked
Handout no. 2.1.3.1.3. Sample of a preliminary village boundary map
Handout no. 2.1.3.1.4 Sample documents for approval of village boundaries
ប្រការប្រការទូទៅបើប្រការណាមិនអាចទទួលបានប្រការរបស់បើប់ប្រការអនុស្តិ្ត
ប្រការ. ប្រការដូចបញ្ហានេះ...បេសកមុស៊ុត....និយម-ហ្វែល ពីពីក្នុង.

ទំនុកបញ្ហារដូចខាងក្រោម

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កុមារ បុគ្គល ច. ដ. ប. 1986

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Lesson 2.1.3.2
Resolving boundary conflicts between villages

Objective

At the end of the lesson, the participants should be able to know the steps to be taken to resolve any boundary conflict that may arise between villages.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

One hour

Process

Discuss the process of resolving conflicts between villages following these steps:

1. Discuss the nature of the boundary conflict. When were the boundaries agreed to before? Was there adequate consultation with the villages? Did all villages agree to the boundaries? If so, why did the boundary conflict occur?

2. Try to resolve the conflict at the level of the village first before seeking for mediation from higher authorities.

3. Hear the views of both sides of the conflict separately. Are there significant gaps between their viewpoints?

4. Analyze the differences in the viewpoints separately with each village. What are possible options to get a compromise? Try to get one side to compromise if not to agree with the other side’s viewpoints. If this does not work, try working with the other side.

5. When some kind of compromise is reached, get both sides to formalize an agreement.

6. If no compromise can be made, ask for the district authorities to intervene.
Module 2.1.4
Village land-use mapping

Introduction

The module is aimed at strengthening the capability of the forestry staff to assist village teams in village land-use mapping. First, the forestry staff sees the overview of village land-use mapping. Then he/she learns how to do each of the main steps. Finally, he/she learns how to organize the work with the village teams.

Contents

The module consists of four lessons:

Lesson 2.1.4.1 Stages in village land-use mapping - In this lesson the participants learn the steps to be followed to do village land-use mapping.

Lesson 2.1.4.2 Preparation of a sketch land-use map - The participants learn how to make a sketch land-use map based on aerial photographs and a topographic map.

Lesson 2.1.4.3 Measuring the area of compartments - The participants learn how to measure the area of compartments using a simple tool.

Lesson 2.1.4.4 Preparation of a village land-use map - The participants learn how to finalize the village land-use map.
Lesson 2.1.4.1
Stages in village land-use mapping

Objective

At the end of the lesson, the participants should be able to understand the steps involved in the preparation of a village land-use map.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

One hour

Process

1. Discuss with the participants the preparation to be done before going to the village.

2. Discuss with the participants the steps to be followed when in the village to assist the village team in doing village land-use mapping.

3. Discuss with the participants the process of disseminating the village land-use plan to the villagers.

Learning notes

Preparation

1. Preparation of extension materials. The series of village forestry flipcharts used in extension is also used in this activity.

2. Acquisition of equipment, supplies, and materials. The PAFO/DAFO team prepares the necessary aerial photographs, topographic maps, GPS devices, hand compasses, 50-m chains, protractors, tracing paper, rulers, erasers, pencils, etc., before the fieldwork commences.

In the village

1. Establishment of rapport with village authorities and the core group. The PAFO/DAFO training team meets with key villagers to discuss the work and the approach to be used. Using the village forestry flipcharts, the forestry staff explains the need for the village land-use map in forest management planning and for other purposes.
2. **Formation of the village mapping team.** A team consists of 3-4 villagers. The village field team which did the village boundary demarcation can be the village mapping team as well.

3. **Orientation and training of the village mapping team.** The PAFO/DAFO training team orients the village mapping team on the need for an accurate village land-use plan. This is followed by the training of the village mapping team on:
   a. Interpretation and use of aerial photographs and topographic maps;
   b. Use of field instruments such as GPS device, hand compass, 50-m tape, etc.;
   c. Various steps to be followed, including the fieldwork and the actual preparation of the village land-use map.

4. **Provision of equipment, supplies, and materials.** The necessary equipment, supplies and materials are provided to the village mapping team. The equipment loaned to the village mapping team should be returned to the PAFO/DAFO team after their use.

5. **Work of the village mapping team.** After their training, the village mapping team continues the work to completion. A DAFO staff member should be assigned to monitor the work and assist the village mapping team. The village mapping team’s work consists of:
   a. Drawing a sketch land-use map using the aerial photographs, topographic map and other materials;
   b. Checking the land uses in the field and making corrections on the interpretation;
   c. Numbering the compartments on the sketch land-use map;
   d. Calculating the area of the compartments;
   e. Finalizing the village land-use map.

**Village assembly meeting**

The village keeps a copy of the finalized land-use map and the summary of the area of the different land uses. The village chief then conducts a meeting to present to the villagers the land-use map and to explain its uses in village land-use planning, forest management planning, and land management.
Lesson 2.1.4.2
Preparation of a sketch land-use map

Objective

At the end of the lesson, the participants should be able to prepare a sketch map of land uses in a village.

Methods

Discussion, lecture, and group work

Materials

- Large brown sheets of paper, marker, and masking tape
- Copies of aerial photographs of a sample village
- Topographic map showing the village borders
- Transparent paper and map-making tools

Time

One hour and thirty minutes

Process

1. Discuss the procedure in making a sketch land-use map (see attached handout).

2. Divide the participants into groups. Ask each group to make a sketch land-use map. Each group will require a set of copies of the aerial photographs which have been interpreted, enlargement (1:20 000) of the topographic map with borders of the village, transparent paper, lead pencil, and colour pencils. Each group draws independently a sketch map of the village explained during the discussion and lecture.

Learning notes

The sketch map shows the location of different features of the terrain and of the land resources, which are shown as compartments. It is prepared based on aerial photographs and an enlargement of the topographic map from 1:100,000 to 1:20,000. The actual scale of the aerial photographs varies from a few percent up to 10 percent from the given scale shown at the edge of the photograph, depending on the errors in the flight height and the forms of the terrain. In order to minimize the error in the scale of the map, the villagers and the extension staff should prepare the sketch map as follows:

1. A transparent paper (or plastic) is placed on the enlargement (1:20,000) of the topographic map and the most important features are copied from the enlargement to the transparent paper (rivers, streams, peaks of the hills and mountains, and main roads etc.). Village roads and tracks are copied later from the aerial photographs, because their position is not correct on the out-of-date topographic map. The outline of the sketch map is drawn with a lead pencil.

2. The transparent paper is next placed on the aerial photograph so that the features on the photographs and on the transparency match as much as possible. The village area,
compartment boundaries, tracks, and other objects, are then copied from the photograph to the transparent paper. During this process it may be necessary to move the transparent paper slightly after drawing part of an area, to reach a good match in the part of the area which is drawn next. This is important because of the differences in the scale between the photograph and the enlargement. The position of streams is checked and if there are major deviations between the aerial photograph and the topographic map, the position of the stream is copied from the photograph.

3. The sketch map is finalized by colouring the roads with red colour pencil, and streams, ponds and other water resources with blue pencil. Other objects are drawn with the lead pencil. The name of the village(s), streams, and roads are then written in visible places on the map near the object. The legend, scale, frames, north arrow, and the date of preparation are added on to the map.
Handout no. 2.1.4.2.1. Sample of a sketch village land-use map
Lesson 2.1.4.3
Measuring the area of compartments

Objective

At the end of the lesson, the participants should be able to estimate the area of compartments in a map by counting dots using an area template.

Methods

Discussion, lecture, individual and group work

Materials

Large brown sheets of paper, marker, and masking tape
Each participant needs an area template, sketch land-use map, land-use sheet, and pocket calculator.

Time

One hour

Process

1. Discuss with the participants the process of measuring an area by counting dots using an area template (see attached handout) and converting each dot count to hectares based on the map scale.

2. Ask the participants to try measuring the area of five compartments in the sample sketch village land-use map.

3. Ask the participants to form themselves into the same groups as in Lesson 2.1.4.2. Ask each group to number the compartments of their own sketch map and calculate the areas of the compartments with the area template.

Learning notes

The forest compartments, rice paddies, and other units are numbered on the map. Their areas are measured from the map with an area template, which is a transparent template with grid squares printed on it. The area of a compartment is measured by counting the number of the squares or dots falling within the compartment. A square is counted if at least 50% of it is within the compartment. The number of plots or squares is then multiplied by the area represented by one square. Compartment numbers and the areas of the compartments are filled in the land-use sheet.
Handout no. 2.1.4.3.1. Model of an area template

<table>
<thead>
<tr>
<th>Scale</th>
<th>1 cm =</th>
<th>1 m²</th>
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<tbody>
<tr>
<td>1:500</td>
<td>16 m²</td>
<td>4 m²</td>
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<tr>
<td>1:1000</td>
<td>64 m²</td>
<td>16 m²</td>
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<tr>
<td>1:2000</td>
<td>256 m²</td>
<td>64 m²</td>
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<td>1:5000</td>
<td>16,000 m²</td>
<td>400 m²</td>
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Lesson 2.1.4.4
Preparation of a village land-use map

Objectives
At the end of the lesson, the participants should be able to understand the components of a village land-use map and learn how to draft the map.

Methods
Discussion, lecture, and group work

Materials
Large brown sheets of paper, marker, and masking tape
Sketch map, transparent paper, map-making tools
Sample of a village land-use map with attached village land-use sheet

Time
One hour

Process
1. Discuss the process of finalizing the village land-use map based on the sketch land-use map. Use the sample village land-use map (see attached handout). What are the components that should be drawn on the map?
2. Ask the participants to form the same groups as in Lesson 2.1.4.2. Ask each group to make a final village land-use map.
3. Ask the groups to number each compartment and enter in the village land-use sheet the compartment areas measured in Lesson 2.1.4.3.

Learning notes
The land-use map shows the current main use of different land compartments in the village. In practice, each compartment is used for several purposes simultaneously, e.g. a dry dipterocarp forest compartment is also used for grazing and as a source of firewood. In addition to the compartments which are differentiated by land use, the map contains the usual basic features, such as title, location, date, legend, scale, and North direction.

After numbering and calculating the area of all compartments, the land-use category and area of each compartment is filled in on the land-use sheet. Any other land-uses of the compartment or other relevant information is written in the remarks column.

When the land-use map and the land-use sheet are ready, copies are prepared for villagers and extension staff to use in subsequent activities. The map is used as the main input in land-use planning, forest inventory, and forest management planning.
Handout no. 2.1.4.4.1. Sample of a village land-use map
<table>
<thead>
<tr>
<th>Compartment no.</th>
<th>Land use</th>
<th>Area (hectares)</th>
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Course 2.2
Allocating and delineating land for the forest management unit

Introduction

The course is aimed at helping the forestry staff develop the capability to train and work with village teams in planning or zoning land uses and allocating land for different uses, particularly for sustainable forest management. Land allocation is a major program of the government. The expected end result of this program is that land is put into proper use and management by individuals, households, and organizations. Land allocation is therefore a requirement for village forestry; in practice among the first activities in village forestry is to allocate land to the FMU for management by villagers together with forestry staff.

The course does not cover all aspects of nor the government procedures for land allocation. Instead, it teaches the participants how land-use planning or forest-use zoning can be used as an aid in land allocation, in particular the allocation of land and forest resources to the FMU. However, the steps covered in this course have corresponding steps in the officially adopted government procedures. In addition, the course introduces the concept of the village cadastre to prepare the villagers for land registration and management.

Contents

The course consists of four modules:

Module 2.2.1 Overview of land use-planning and allocation, and the FMU. In this module, the participants learn the basic concepts of land-use planning and land allocation, and how they are used in the allocation of land for the FMU.

Module 2.2.2 Village land-use planning and allocating and delineating land for the FMU of a village or cluster. The participants learn how to conduct village land-use planning as a means to allocate land for the FMU of a village or cluster of villages.

Module 2.2.3 Allocating and delineating land for the FMU of a group of villages. The participants learn how to zone forest uses and, based on this information, delineate the FMU of a group of villages.

Module 2.2.4 Registering land in a village cadastre. The participants learn basic and simplified cadastral survey and mapping, as well as how to organize a village cadastre. They also learn how to organize a program for training village teams and assisting them in land-use planning and land allocation.
Module 2.2.1  
Overview of land-use planning and allocation, and the FMU

Introduction

This module is aimed at providing the forestry staff with a basic understanding of the concepts of land-use planning and land allocation, and how they are used in the allocation of land for the FMU.

Contents

The module consists of three lessons:

Lesson 2.2.1.1 Overview of land-use planning. In this lesson, the participants learn about land-use planning, its importance and usefulness, and how it is basically done.

Lesson 2.2.1.2 Overview of land allocation. The participants learn about land allocation and its relationship with land-use planning. They also learn about the land allocation program as implemented by MAF and how the district can assist in the program.

Lesson 2.2.1.3 Overview of allocating land to an FMU. The participants learn about the different ways of defining an FMU and how land may be allocated to it.
Lesson 2.2.1.1
Overview of land-use planning

Objectives

At the end of the lesson, the participants should be able to:
1. Understand the objectives of land-use planning;
2. Understand the role of land-use planning in village forestry;
3. Understand how land-use planning is basically done.

Methods

Discussion and lecture

Materials

Large brown paper sheets of paper, marker, and masking tape
Sample village land-use map

Time

One hour

Process

1. Discuss with the participants changes in village land uses through time and why the use of village land resources must be planned. Some of the guide questions are:
   a. Has the area of the forests in the village remained the same in the last few years?
   b. Should forests that may be converted to other land uses be included in village forestry?
   c. What forests may be designated for village forestry?
   d. What is the process of designating these forests or any other land uses called?

2. Discuss with the participants the role of village land-use planning in village forestry. Based on the discussion, give the reasons why village land-use planning is necessary and why it should be done before the land is allocated for the FMU and the village is awarded a forest management contract by the government.

3. Discuss with the participants the basic steps in village land-use planning.

Learning notes

Basic steps in village land-use planning:

1. Prepare the necessary materials and information, such as land-use map, village population, population movement patterns, land being used by households, etc.

2. Project the household needs for land for the planning period, e.g. 10 years. Base the projections on growth and migration of the village population, the land-use pattern of households, and the possible changes in this pattern with the introduction of new land management practices.
3. Project the community needs for land. Include such uses as sites for schools, health care and other services, temple sites, markets, etc.

4. Assess the capability of the land resources of the village to meet the household and community needs for land. Base this on the current village land-use map and a field investigation of where lands suitable for the intended purposes may be found.

5. Look at possible options for meeting the needs for land with the land resources of the village.

6. Assess the options and draw the village land-use plan.

7. Put the plan in written and graphical forms, e.g. village map of planned land uses.
Lesson 2.2.1.2
Overview of land allocation

Objectives

At the end of the lesson, the participants should be able to:
1. Understand the levels of land allocation and the objectives at each level;
2. Understand the role of land allocation in village forestry;
3. Learn how the village and district could assist in the government land allocation program;

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape
Chart showing a model of village forestry
Sample village land-use map

Time

One hour

Process

1. Discuss with the participants the levels of land allocation and the objectives at each level.

*Allocation of land to the village.* When is this done? If it has not been done before, then it is done as a part of village forestry. Show this on the chart depicting a model of village forestry. Show the village boundary map as the outcome of the activity.

*Allocation of village land to various land uses.* What is this process called? Show this on the chart depicting a model of village forestry. Show the village land-use map. Is this a land-use plan? Why or why not?

*Allocation to land users.* When are the village forests legally allocated for village forestry? What is this process called? Show this on the chart depicting a model of village forestry. Show the village land-use map. Which land can be allocated to which land users? When in the village, ask the villagers if they want to have land titles for each of their land areas. Ask them why or why not.

2. Proceed by discussing with them the concept of land ownership under Lao law and tradition. Do forests have to be allocated by the government first before the village can manage them, e.g. through village forestry? In what situation is formal government approval not necessary?

3. Introduce the government program of land allocation. Is allocating land for village forestry part of the program? Is allocating land for farms part of village forestry? What can the village do to assist the government in its land allocation program?
Learning notes

Levels of land allocation

There are three levels of land allocation:
• First, land is allocated to the village (village boundary demarcation).
• Second, village land is allocated to land uses (village land-use planning).
• Third, land in land-use categories is allocated to land users (individuals, organizations, village administration, etc.).

Land allocation in village forestry

Village forestry is concerned with forest management, but before this can be done, the forests to be managed must be delineated and allocated. However, the allocation of forests for village forestry cannot be done separately from over-all land allocation. Hence, forest land allocation can be considered as an integral activity of village forestry.

Stages in land allocation as practised in village forestry

MAF/DOF is working with an 8-stage land allocation process. Since land-use planning and land allocation is an integral part of village forestry, all of the stages in the 8-stage process are also integral parts of village forestry. However, it should be noted that a certain logical sequence of activities is followed in village forestry, including land-use planning and land allocation. Hence, the 8-stage process is not necessarily conducted in the sequence as it is suggested in the DOF process. The following illustrates how the 8-stage DOF process is practised in village forestry:
## Stages As practiced in village forestry

<table>
<thead>
<tr>
<th>Stages</th>
<th>As practised in village forestry</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Preparation</td>
<td>Village Land Allocation Committees and Village Land Survey and Mapping Teams are formed in each village. They are trained by FOMACOP staff in land-use planning, land survey, and mapping.</td>
</tr>
<tr>
<td>2. Village consultation and coordination</td>
<td>FOMACOP is in constant contact with the villages. Consultation for land allocation is only one part of the on-going dialogue. Relevant provisions of the Land Law and Forest Law are introduced to villagers as part of training sessions.</td>
</tr>
<tr>
<td>3. Data collection</td>
<td>Data is collected by villagers for their own use (bottom-up planning and implementation). FOMACOP does not need the data so much since its role is to train and assist villagers and not do the work itself. The villagers demarcate the village boundaries as well as prepare land-use plans and do land tenure mapping, with the assistance of FOMACOP staff.</td>
</tr>
<tr>
<td>4. Village land-use planning and allocation meeting</td>
<td>The village land-use map is an input used by the villagers in their own land-use planning. They also do transect walks, prepare land capability maps, and formulate a 10-year village land-use plan.</td>
</tr>
<tr>
<td>5. Field measurement</td>
<td>Trained villagers do the survey of housing land, gardens, paddy fields, etc. Each land plot is mapped and recorded in a Village Land Registry. The goal is to complete the village cadastre through villagers’ own efforts. They are trained in survey (using simple but accurate plane table) and mapping by FOMACOP.</td>
</tr>
<tr>
<td>6. Concluding activities</td>
<td>The village is encouraged to register the mapped land plots with the district authorities. Village forest management contracts will be signed between the villagers and district/provincial authorities.</td>
</tr>
<tr>
<td>7. Extension</td>
<td>This is conducted early in village forestry and is a continuous process.</td>
</tr>
<tr>
<td>8. Monitoring, control, and evaluation</td>
<td>Villagers do their own monitoring. DAFO staff are assigned a number of villages to assist and monitor. They check the accuracy of work done by the village teams. Evaluation is also regularly done by FOMACOP provincial staff.</td>
</tr>
</tbody>
</table>
Village forestry and the land allocation program

The scenario envisioned is that each village participating in village forestry will have:

- Village boundaries demarcated and approved by the district and provincial authorities
- Present land uses in the village mapped
- Future land uses in the village planned (over a 10-year planning period)
- Forest land allocated and contracted for management by villagers who have organized themselves into village forestry organizations
- Housing land, gardens, paddy fields, etc. allocated for individuals surveyed, mapped, registered as part of the village land records (cadastre) and subsequently titled
- Land needed by the village administration and other purposes surveyed, mapped, and registered as part of the village cadastre

The last two items are, strictly speaking, not part of village forestry. However, any organized effort at village forestry can be extended to activities that support the government land allocation program as outlined above.
Lesson 2.2.1.3
Overview of allocating land to an FMU

Objectives

At the end of the lesson, the participants should be able to:
1. Relate the previous discussions on land-use planning and allocation to the allocation of land to an FMU;
2. Understand how land may be allocated to an FMU.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape
Sample topographic and land-use maps

Time

Thirty minutes

Process

1. Review with the participants the concept of land ownership, use, and management in the Lao context, relating the discussion to the ownership, use, and management of an FMU. Explain that in the Lao PDR, all land and forests are owned by the government on behalf of the national community; hence, all private land owners “own” their land through permission from the government on the condition that they will use and manage the land for the purposes intended. Explain further that an FMU is a land resource just like a farm, and that it is “owned” and managed just like any other land resource, i.e. it has a manager who has been given authority by the government.

2. Review with the participants Lesson 2.1.2.3 on the different ways of defining an FMU (e.g. based on a single village, a cluster, or a group of villages). Relate the discussion to the needs for village boundary demarcation and village land-use planning in allocating land for an FMU. Explain that these two activities are necessary in the case of an FMU based on a single village or cluster. However, if the FMU is large (e.g. 30,000 ha) and extends over several villages, and these villages have been identified as management partners, then the practical thing to do may be to skip the village-by-village boundary demarcation and land-use planning, and instead do a simple forest-use zoning and allocate the forest resources to the FMU.
Module 2.2.2
Village land-use planning and allocating and delineating land for the FMU of a village or cluster

Introduction

This module is aimed at providing the forestry staff with the basic understanding of the process of land-use planning and allocation and how it may be applied in a village or cluster of villages to allocate land for the FMU. First, the participants learn how to assess the community and household needs for land and the capability of the land resources in the village to meet those needs. Next, the participants learn how to generate and evaluate land allocation options and to formulate a land-use plan based on the selected option.

Contents

The module consists of eight lessons:

Lesson 2.2.2.1 Assessing community and household needs for land. In this lesson, the participants learn how to assess the community and household needs for land.

Lesson 2.2.2.2 Projecting future requirements for land. The participants learn to project over a ten-year period the needs of the village for various types of land.

Lesson 2.2.2.3 Land capability assessment. The participants learn to assess the capability of each land compartment for various purposes.

Lesson 2.2.2.4 Land capability mapping. Based on the assessment, the participants learn how to make a land capability map of the village.

Lesson 2.2.2.5 Laws concerning land allocation. In this lesson, the participants learn what the Land Law and Forestry Law basically say about land allocation.

Lesson 2.2.2.6 Generating land-use allocation options. The participants learn to define options for allocating village land.

Lesson 2.2.2.7 Evaluating land-use allocation options and developing village rules for land allocation. The participants learn to evaluate the generated land-use allocation options and choose the best option, and how to facilitate work to develop village rules on land allocation.

Lesson 2.2.2.8 Writing the village land-use plan and mapping the FMU. The participants learn to formulate and to write a village land-use plan based on the chosen land-use allocation option, and to map the FMU as part of the mapped village land-use plan.
Lesson 2.2.2.1
Assessing community and household needs for land

Objectives

At the end of the lesson, the participants should be able to:
1. List the needs for land of households in the village;
2. List the needs for land of the community;
3. Know the quality of the land that fits the need;
4. Understand the trade-off between different land uses.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

One hour and 30 minutes

Process

1. Discuss with the participants some of the questions that they should ask the villagers pertaining to their household needs for land. For example:
   - Do you have a house? How large is the land it occupies?
   - Do you have a paddy? How large?
   - What other kinds of land do you have? How large?
   - What other kinds of land do you need and how large of an area would you like to have?
   - Are these kinds of land absolutely essential to you?

2. Discuss with the participants some of the questions that they should go over with the villagers concerning the community needs for land. For example:
   - Does the village have a school?
   - Does it have a temple?
   - Does it have a multi-purpose center?
   - Does it have a sacred forest?
   - Does it have a park or conservation area?
   - If not, does it have land reserved for these purposes?
   - What other kinds of land does the village have?
   - What other kinds of land does the village need?
   - Are these kinds of land absolutely essential to the village during the next ten years?
   - How much of these kinds of land are needed?
3. Shift the discussion to the quality of land that fits the different purposes. Some of the questions are:
   • What kind of land would you like to have for your house?
   • What kind of land would you like to have for your paddy?
   • What kind of land would you like to have for the other uses?
   • What kind of land should the village have for a school? temple? other purposes?

4. Finally, discuss with the participants the trade-off between different land uses by using the following guide questions:
   • What different land uses require a similar kind of land?
   • What land is possible for expanding paddy?
   • Can the land area of the village accommodate all these uses?
Lesson 2.2.2.2
Projecting future requirements for land

Objectives

At the end of the lesson, the participants should be able to:
1. Project village population in ten years using basic population data;
2. Project household needs for land;
3. Project community needs for land;
4. Understand the effects of technology and change on the needs for land.

Methods

Discussion, lecture, and demonstration exercises

Materials and data

Large brown sheets of paper, marker, and masking tape
Data that villagers should provide information on:
- Population of the village
- Estimated rate of population growth in the village (i.e. persons born in the last few years)
- Estimated rate of deaths in the village
- Estimated migration into and out from the village
- Information from the assessment of the household needs for land
- List of needs of the village for land

Time

Two hours

Process

1. Discuss with the participants how population changes. What makes population grow? What makes it go down? Discuss how to project population in a village. Demonstrate with an example, asking some of the participants to do part of the calculations in front of the class.

2. Discuss with the participants how to project the land requirement of households in a village.

3. Discuss with the participants how to project the land requirement of a village community.

4. Review with the participants the list of land requirements of a village. Should conversion of forests to farms and other uses continue forever? Are there means of reducing needs for land? Discuss the options for meeting village needs for land.
Learning notes

Projection of village population in ten years using basic population data

Start from the current year (e.g. October 1997 starting from the earliest part of the dry season). The end of the current year is October 1998 and ten years hence is October 2007. The population in 1998 is projected as follows:
1. Start from the village population in 1997.
   a. Add the projected number of births in one year.
   b. Subtract the projected number of deaths in one year.
   c. Add the projected number of people moving into the village in one year.
   d. Subtract the projected number of people moving out from the village in one year.

Projection of household needs for land

Use the information from the assessment of household use of land.

1. Take the average area of land used by households in each category (e.g. house, paddy, garden). Multiply by the number of households in the village in the current year (e.g. 1997) to get the total estimated current household land uses in each category.
2. Add the present average area of land used by households in each category and the desired additional area by category. Multiply by the number of households in the village ten years hence to get the total estimated household land uses in, say, year 2007 in each category.
3. Calculate the land per capita by category in 1997 by dividing the area by the population.
4. Calculate the land per capita by category in 2007 by dividing the area by the projected population in 2007.
5. Assess the results. Are the per capita values increasing (or decreasing)? Why? Are the villagers happy with the results? What changes to the results, if any, would they like?

Projection of community needs for land

Review with the villagers their list of land needed for community purposes. Ask them if the land in each category is already available at present. If not, ask them if they know where to locate the land. Refer back to the kind of land required for each category of land use (from Lesson 2.2.2.1).

Effects of technology and change on the needs for land

Review the different needs for land, especially those of the households (paddy fields in particular). Ask if the desired area of the paddy must be made available absolutely. Ask the participants to list options if the desired area cannot be made available because of land shortage. Some examples of options are:
- Use fertilizers to increase yield
- Increase the number of cropping per year by means of irrigation
- Change cropping technology to increase yield
- Reduce waste in agricultural practices
- Reduce consumption by changing consumption habits (e.g. eating habits)
Lesson 2.2.2.3
Land capability assessment

Objectives

At the end of the lesson, the participants should be able to:
1. Understand the indicators of land capability;
2. Learn how to assess the indicators of land capability.

Methods

Role play, discussion, lecture, and fieldwork

Materials

Large brown sheets of paper, marker, and masking tape
Village land-use map

Time

Four hours

Process

1. Ask one participant to play the role of extension worker/facilitator and the other participants to play the role of villagers. Ask the facilitator to discuss with the participants (villagers) the different indicators of land capability.

2. Discuss each of the land capability indicators. How can they be measured or assessed? If paddy is the desired crop, what should the land capability indicators tell about what lands are suitable? Take another crop, say fruit trees. If a piece of land is suitable for growing rice, is it also suitable for the other crop?

3. Again taking paddy as the desired crop, look at the village land-use map and check which compartments to investigate in the field based on the land capability indicators for paddy.

4. Walk through the selected site with the participants. Stop at different points and discuss the features of the site. Use as a guide in the discussion the preceding lesson on land capability. Assess the present land uses in relation to the capability of the land. Can the land be converted to other uses? What are the potential problems when converting the land to other uses?
Learning notes

Indicators of land capability

- **Slope.** What crops can be planted in moderate slopes? In steep slopes? Explain the concept of slope in % (i.e. as the ratio of vertical distance to horizontal distance expressed in %).
  Slope ranges often recommended for agriculture are as follows:

  0-12% slope – for irrigated paddy, terraced irrigated paddy, upland rainfed field crops, fruit trees, commercial tree crops, livestock, and fish ponds, with conservation measures and practices

  12-25% slope – upland rainfed field crops, fruit trees, commercial tree crops, and livestock, with conservation measures and practices

  25-36% slope – upland rainfed field crops, fruit trees, and commercial tree crops, with conservation measures and practices

  36-45% slope – upland rainfed field crops (when really necessary), fruit trees, and commercial tree crops, with conservation measures and practices

  above 45% slope – preserved as protected forest

- **Soil characteristics.** Look at different land compartments. Are the soils there fertile enough for rice cropping? How long will the soil fertility last if used for rice cropping? Does the soil puddle and can it be converted to paddy?

- **Elevation.** How high in elevation can different crops be grown?

- **Existing vegetation.** What does the existing vegetation in the compartment tell about the suitability of the land for growing rice? For growing other crops?

- **Other indicators.** Can they think of any other indicators? How do they influence the capability of the land for different uses?
Lesson 2.2.2.4
Land capability mapping

Objectives

At the end of the lesson, the participants should be able to:
1. Use land capability assessment and the results of the field investigation to indicate the land capability of each compartment;
2. Complete the land capability map.

Methods

Discussion and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Village land-use map
Sample land capability map

Time

Two hours

Process

1. Discuss the advantages of knowing what crops a piece of land is capable of growing. Agree on a set of land capability classes, taking into account the combined influence of the different indicators of land capability from Lesson 2.2.2.3. For example:

   Land capability class 1 – for paddy production and gardens
   Land capability class 2 – for upland crops (including upland rice and fruit trees)
   Land capability class 3 – for forest production
   Land capability class 4 – for protection or conservation

2. Discuss the capability of each compartment of the land for various uses. In actual practice, the results of the field investigation is used together with the knowledge the villagers have of the condition of the land resources.

3. Discuss with the participants the sample land capability map (see attached handout). What uses are each compartment capable of (i.e. land capability classes)?

4. Organize the participants into their assigned groups. Ask each group to make a land capability map based on the village land-use map and the results of the discussion in Step 2, using the sample land capability map as a model.
Handout no. 2.2.2.4.1. Sample land capability map
Lesson 2.2.2.5
Laws concerning land allocation

Objectives

At the end of the lesson, the participants should be able to understand the provisions of the Land Law and the Forest Law, which are relevant to village land-use planning and land allocation.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape
Handout summarizing relevant provisions of the Land Law and Forest Law

Time

One hour

Process

Provide the participants with the handout summarizing relevant provisions of the Land Law and Forest Law (see attached handout). Discuss with them each item in the handout, encouraging them to ask questions concerning the provisions of the Land Law and the Forest Law, including those of customary rights, that relate to village land-use planning and land allocation. Discuss the implications of these provisions on the village practices concerning the allocation and use of land.
Handout no. 2.2.2.5.1 Excerpts of the Land Law and the Forest Law pertaining to Land Allocation

Some important provisions of the Land Law

Article 3
Land is owned by the national community. The state allocates land to be used by individuals, families, and organizations (including economic, military, state, political, and social organizations). Land can not be taken as a commodity for buying and selling.

Article 7
Land speculation is prohibited. Land occupation for speculation shall be cancelled.

Article 11
Land categories are agricultural land, forest land, construction land, industrial land, communication land, cultural land, land for national defence and peace-keeping, water area land

Article 13
Maximum lease period by the state to Lao citizens is 30 years, between Lao citizens is 20 years.

Article 17
Limits to holding of agricultural land:
- One hectare per labour force – for rice and fish farming
- Three hectares per labour force – for commercial crops and fruit-tree orchards
- 15 hectares per labour force – for growing grass for livestock
If larger area than the limit is desired, a lease must be made with the state.

Article 18
The District Administrative Authority can issue Land Certificate for agricultural land valid for 3 years to individuals and organizations. After 3 years, application for a Land Title can be made with the Land Management Office of the province.

Article 21
Limits to holding of forest land – 3 hectares per labour force, for organizations – based on production capacity

Article 22
The District Administrative Authority, in coordination with the Village Administrative Authority, can issue Land Certificate for forest land valid for 3 years to individuals and organizations. After 3 years, application for a Land Title can be made with the Land Management Office of the province.

Article 47
Land Register Book contains:
- Names and surnames of husband and wife (or organization) who have received the land-use right
- Date, month, and year of birth, nationality, profession, present address
- Names of father and mother of land-use right holder
- Number of the Land Title
- Code number of the map
- Land limits, area, and land boundaries
• Land map

**Article 48**
Land Certificate attests the provisional land-use right over an agricultural or forest land, and is issued by the District Administrative Authority.

**Article 49**
Land Title is the main evidence for permanent land-use right.

**Article 52**
Land-use right is acquired through assignment by the state, transfer, or inheritance.

**Article 53**
The holder of the land-use right shall have land protection right, land-use right, land usufruct right (i.e. use the land for leasing or as a share or guarantee), right to transfer the land-use right, right of land-use right inheritance.

**Article 59**
Organizations only have management, use, and protection rights. They cannot transfer a lease or use the land as a share or guarantee.

**Article 62**
Loss of land-use right:
- Have not used the land according to the objectives for acquiring the land
- Have not paid the land tax for three consecutive years
- Have not used the land according to the provision of the contract and of the Land Law
- By court decision

**Article 63**
Land-use right shall be terminated by:
- Giving up voluntarily the land-use right
- Land acquisition by the state for public facilities use

**Article 79**
Land problems of administrative characteristics (e.g. unauthorized use of the land, not paying taxes, etc.) shall be resolved by the concerned land management organization in coordination with the concerned local administrative authority.

**Article 80**
Land disputes of civil characteristics (e.g. inheritance, transfer, and contractual disputes) shall be resolved first through arbitration by the concerned local administrative authority. A case may be filed in the people’s court if no agreement is reached during the arbitration.

**Article 85**
Lao citizens having land with area greater than prescribed in the Land Law shall arrange for settlement to comply with the provisions of the Land Law within 3 years from the promulgation of the Land Law. After the time limit, they will have no right to use the land in excess.
A provision of the Forest Law relevant to land allocation

Article 14
Conversion of forest land to other land uses requires approval of:

- the district administrative authority for areas up to 3 hectares, with further approval of PAFO
- the provincial administrative authority for areas of more than 3 hectares up to 100 hectares, with further approval by the Ministry of Agriculture and Forestry
- the Ministry of Agriculture and Forestry for areas of more than 100 hectares up to 10,000 hectares, with further approval by the government
- the government for areas of more than 10,000 hectares with endorsement of the National Assembly
Lesson 2.2.2.6
Generating land-allocation options

Objectives

At the end of the lesson, the participants should be able to:
1. Define a set of land-use strategies and elaborate the corresponding options;
2. Map out the elaborated land-use allocation options.

Methods

Discussion and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Data on household and community needs for land
Present land-use map
Land capability map

Time

Two hours

Process

1. Start the discussion by posing the land-use allocation problem. Then discuss possible strategies for solving the problem.

2. Discuss what is meant by a land-use allocation option. Continue by discussing how to generate land-use allocation options.

3. Generate two options based on two different strategies. Map out the options.

Learning notes

Statement of the land-use allocation problem

Given the present land uses (as shown in the land-use map) and the capability of the land resources (as shown in the land capability map), how and where should the land be allocated to meet the household and community needs for land?

Sample strategies for solving the land-use allocation problem

1. Converting forests to farms and other land uses to meet all needs
2. Converting some forests to farms and other land uses, while reducing needs by other means
3. Keeping all forests intact, while reducing needs and using existing non-forest land
Generating a land-use allocation option

A land-use allocation option consists of a set of land compartments with defined land uses. The present land use is one such option. Another option may be defined by taking the present set of land uses and converting one forest compartment to paddy, etc. To generate a land-use allocation option to meet the projected needs for land, proceed as follows:

- Start with the present land-use map and land capability map.
- While checking with the land capability map, mark in the land-use map the land that can be used for meeting the various needs for land.
- Measure the marked area and compare with the needs.
- If the needs are not met, look for other areas using the land-use and land capability maps.
- Stop the process when the needs are met or when no more suitable land can be found.

Some of the government guidelines for agricultural land-use planning:

- Arable land should not have a slope of more than 23%.
- Arable land should not be located more than 100 m from watercourses and roads.
- Each farm family, in addition to 1 ha of tree plantation or orchard, can obtain a maximum of 4 ha of arable land.
- The family should have enough labour to efficiently utilize the land allocated.
- Fallow periods should not exceed 3 years.

Mapping out the option

Prepare a map indicating the land-use plan based on the above land-use allocation. The mapped land-use plan should show the location and area of various categories of land that the villagers determine as useful for their situation. For a comprehensive list of land-use categories refer to Lesson 2.1.1.2. Add the following categories:

Reserved lands for expansion of present land uses

- Reserved for expansion of settlements
- Reserved for expansion of paddy
- Reserved for expansion of gardens
- Reserved for expansion of upland crops
- Reserved for expansion of forests (e.g. for forest plantations)

Assume that the exercise has been repeated to generate another option. Make a summary of the results (e.g. table of planned land uses and their extent in hectares).
Lesson 2.2.2.7
Assessing land-allocation options and developing village rules for land allocation

Objectives

At the end of the lesson, the participants should be able to:
1. Develop the criteria for evaluating village land-use plan options;
2. Apply the criteria to select the best option;
3. Facilitate work to develop village rules for village land allocation.

Methods

Discussion and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Village land-use planning options mapped and summarized in Lesson 2.2.3.2

Time

One hour

Process

1. Discuss the land-use allocation problem. Given possible options, how should the village decide which one is the best? List and discuss the criteria.
2. Based on the set of criteria developed, which of the two options is the better?
3. Discuss with the participants how to facilitate work in the village to develop rules for land allocation.

Learning notes

Examples of criteria for assessing land-use allocation options

• Percentage of meeting the needs for important categories of land (e.g. paddy)
• Quantity of forests to be converted to other land uses

Developing rules for village land allocation

After the village land-use plan has been developed, there must be a mechanism for the actual allocation of reserved lands to applicants. The village should develop these rules and institute a committee (i.e. Land Allocation Committee) to implement these rules and to endorse the applications for land-use permits or land titles to the district authorities. The rules should contain answers to the following questions.
• Who can apply for the use of reserved lands?
• Who will act on the applications for the use of reserved lands?
• How should the reserved lands be allocated among users?
• Once the allocation has been made, what is the process that the user should follow to formalize his claims or acquisition of the land?
Lesson 2.2.2.8  
Writing the village land-use plan and mapping the FMU

Objectives

At the end of the lesson, the participants should be able to assist village teams in putting the village land-use plan in written form and mapping the FMU as part of the mapped village land-use plan.

Methods

Discussion and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape  
Writing tools and materials  
Model of a village land-use plan  
Map of land-use plan option chosen in Lesson 2.2.3.3

Time

Two hours

Process

1. Discuss the components of the model of a village land-use plan (see attached handout).
2. Ask each group to write a village land-use plan based on the option chosen in Lesson 2.2.3.3.
3. Discuss with the participants the formulated plan and ask them to identify the land allocated to the FMU of the village or cluster.

Learning notes

The map of the chosen village land-use allocation option already serves as the village land-use plan. It indicates what each compartment should be used for during the next ten years. However, the village may opt to write out its land-use plan completely to include the land-use strategy, all agreed details, rules, and mechanisms for implementing the plan. The model shown in the attached handout makes provisions for the inclusion of all of these components.
Handout no. 2.2.2.8.1. Model for writing a village land-use plan

Village land-use plan of ________________

1. Introduction

1.1 Background

This report presents the land-use plan for Ban ____________. It covers a planning period of ten years from ________ to ________.

1.2 Objectives

• To project the needs for land for various uses
• To find where those needs for land can be met
• To prepare a 10-year land-use plan for the village

1.3 Methodology

Population projection

Land use is driven by the need of people for land. To project this need, it is necessary to project the level of population. For a village this is done as follows:
1. Do a population count of the village.
2. Collect data on births, deaths, and migration of people from and to the village.
3. Convert this data into annual basis.
4. Compute population from year to year by:

\[
\text{Population of the year} = \text{Population of previous year} + \text{Projected births} - \text{Projected deaths} + \text{Projected in-migration} - \text{Projected out-migration}
\]

Then recalculate the number of births, deaths, in-migration, and out-migration for the next yearly period as follows:

\[
\text{Projected births} = \frac{\text{Projected births \times Population of the year of previous year}}{\text{Population of previous year}}
\]

and similarly for deaths, in-migration, and out-migration.

Land needed by the community
1. List the various needs of the community for the next 10 years.
2. Consult with various sectors on the required area of each item in the list.
3. Consolidate the findings.

Land needed by households
1. List the various needs for land of the households.
2. Based on present land uses, calculate the present rates of land per capita for each item in the list.
3. Estimate the future use of land based on the present rates of use of land and the projected population of the village.
4. Discuss the results and the options for meeting needs for land with various sectors. For example, should the present rates of land use be maintained? Or instead, should the present areas of land use be maintained? If so, how should the increasing needs of the community and households (e.g. for food) be met (for example, by improving productivity by means of irrigation, better farming technology, etc.)? How can the households meet the financial requirements for the added inputs?

5. Consolidate the findings.

**Land needed for other purposes**

1. List the possible needs of land for other purposes (village industry, landings for forest products, etc.)
2. Consult with various sectors.
3. Consolidate the findings.

**Present land uses**

These were mapped earlier by a village mapping team, which was trained by a team of forestry staff. Aerial photographs were used to prepare the map of present land uses.

**Land capability**

Capability of selected land compartments for various uses (e.g. paddy production) is determined by a village team using indigenous knowledge on the suitability of the land and other information from fieldwork, e.g. transect walks.

**Village land-use plan**

1. Indicate on the map where changes in land use will occur based on the projected needs for land, land capability, and various consultations made earlier.
2. Present and discuss the results with the entire village assembly.
3. Modify the plan based on the results of the discussion.

2.0 Projecting needs for land

2.1 Population projection

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Births</th>
<th>Deaths</th>
<th>In-migration</th>
<th>Out-migration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td></td>
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<td>2000</td>
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<td>2001</td>
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<tr>
<td>2006</td>
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<td></td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
2.2 Land needed by the community

Table 2 – Land for community use in 2007 (hectares)

<table>
<thead>
<tr>
<th>Land use</th>
<th>Used in 1998</th>
<th>Additional land to be reserved</th>
<th>Land use in 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration office</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temple</td>
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<td>...</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

2.3 Land needed by households

Table 3 – Land for household use (hectares)

<table>
<thead>
<tr>
<th>Land use</th>
<th>Used in 1998</th>
<th>Additional land to be reserved</th>
<th>Land in 2007</th>
<th>Per capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paddy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garden</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Livestock</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.4 Other needs for land

Table 4 – Land for other uses (hectares)

<table>
<thead>
<tr>
<th>Land use</th>
<th>Used in 1998</th>
<th>Additional land to be reserved</th>
<th>Land use in 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sawmill</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilities</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>...</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.0 Present land uses and land capability

3.1 Present land uses

Table 5 – Present land uses

<table>
<thead>
<tr>
<th>Land use</th>
<th>Area (hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village settlement</td>
<td></td>
</tr>
<tr>
<td>Paddy</td>
<td></td>
</tr>
<tr>
<td>High forest</td>
<td></td>
</tr>
<tr>
<td>...</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1 – Map of present land uses
3.2 Land capability

Table 6 – Land capability of different land uses

<table>
<thead>
<tr>
<th>Land capability type</th>
<th>Area (hectares)</th>
<th>Possible land uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village settlement</td>
<td></td>
<td>Community land, household land, industrial land, and similar needs</td>
</tr>
<tr>
<td>Paddy</td>
<td></td>
<td>Rice production</td>
</tr>
<tr>
<td>Garden</td>
<td></td>
<td>Vegetable production</td>
</tr>
<tr>
<td>Fruit tree and grazing</td>
<td></td>
<td>Fruit trees, livestock, and upland crop production</td>
</tr>
<tr>
<td>High forest</td>
<td></td>
<td>Forestry purposes (not to be changed)</td>
</tr>
<tr>
<td>Dry dipterocarp forest</td>
<td></td>
<td>Maintained for forestry purposes, but may accommodate changes for additional village area, paddy, garden, fruit trees, etc.</td>
</tr>
</tbody>
</table>

Figure 2 – Land capability map

4.0 Village land-use plan

4.1 Planned land uses

Table 7 – Land use-plan, 1998-2007 (hectares)

<table>
<thead>
<tr>
<th>Land use</th>
<th>Area in 1998</th>
<th>Area in 2007</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village settlement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paddy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garden</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High forest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry dipterocarp forest</td>
<td></td>
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<td>...</td>
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<td></td>
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</tbody>
</table>

The forest management unit (FMU) to be managed by the village together with the forestry staff is indicated in Figure 3. The FMU includes the different forest categories indicated in Table 7.

Figure 3 – Map of planned land uses

4.2 Village cadastre

The village will maintain a village cadastre, which will record all relevant data concerning all land parcels in the village, including the parcel number, area, land category, present land use, name of owner, and registration number (if the land parcel is registered). The village cadastre will be managed by the Village Land Allocation Committee. The land parcels will be surveyed and mapped by a trained village cadastral survey and mapping team, and the maps will be kept as part of the village cadastre.
5.0 Plan implementation

5.1 Implementation strategy

The village will use all available resources to make sure that the plan will be properly implemented. The village administration will form a Village Land Allocation Committee and Village Cadastral Survey and Mapping Teams. The Village Land Allocation Committee will lead in implementing and updating the Village Land-Use Plan. All members of the village, including organizations, will be encouraged to have their land surveyed, mapped, and registered. All information regarding the land will be maintained in the Village Land Registry. All changes in land use will be monitored by the Village Land Allocation Committee, which will report to the village administration all matters regarding land allocation and use.

5.2 Village Land Allocation Committee

The duties of the Village Land Allocation Committee are:
- Update the Village Land-Use Plan every 10 years
- Formulate and implement land-use policies in accordance with the Village Land-Use Plan
- Provide recommendations regarding land-use conversions
- Maintain the Village Land Registry
- Supervise the Village Cadastral Survey and Mapping Team
- Do other work assigned by the village administration

5.3 Village cadastral survey and mapping team

The duties of the Village Cadastral Survey and Mapping Team are:
- Survey all land parcels in the village
- Map all the surveyed land parcels
- Provide the Village Land Allocation Committee with all outputs and information from land survey and mapping.
- Do other work assigned by the Village Land Allocation Committee.

5.4 Resources to implement the plan

Human resources and financing

The village has the human resources to form the Village Land Allocation Committee and the Village Cadastral Survey and Mapping Teams. Training of the villagers will be done by government staff. Financing of land-planning and allocation activities will be provided by the village, but any assistance that the government can provide will be welcome.

Materials and tools

Some materials and tools have been provided by the government as shown below. The village will keep them in good condition or replenish them when they are used up.
- Plane table, compass, and metric tape
- Mapping pens, pencils, erasers, and rulers
- Survey and mapping paper
- Plastic templates, triangles, and protractor
- Calculator
- File folder and book for the Village Land Registry
Module 2.2.3
Allocating and delineating land for the FMU of a group of villages

Introduction

This module is aimed at teaching the participants a practical way of delineating land that will be made part of the FMU of a group of villages. Module 2.2.2 dealt with allocating land for the FMU of a single village or cluster. The procedures learned in that module are based on individual village or cluster boundary demarcation and land-use mapping, followed by an elaborate system of land-use planning, which finally results in land being allocated for different uses, the main use being forest management and conservation. On the other hand, the procedures that are introduced in Module 2.2.3 do not require the demarcation of boundaries or the mapping and planning of land uses in the villages that compose the group. Following the procedures described in Module 2.2.2 is an ideal way of allocating land for the FMU, which at the same time supports the government land allocation program; but doing them village by village would take time. Therefore, at the expense of not covering over-all land allocation, the procedures described in this module are simplified to focus on forest zoning and delineating the forest zones as part of the FMU.

Contents

The module consists of two lessons:

Lesson 2.2.3.1 Mapping land uses and forest categories within the tentatively delineated FMU. In this lesson, the participants learn to identify forest areas for the FMU and map the land uses and forest categories in these areas.

Lesson 2.2.3.2 Delineating the FMU. The participants learn to allocate and delineate land for the FMU and to prepare the map of the FMU.
Lesson 2.2.3.1
Mapping land uses and forest categories within the tentatively delineated FMU

Objectives

At the end of the lesson, the participants should be able to:
1. Identify forest areas that could form the FMU;
2. Map the different land uses and forest categories.

Methods

Discussion and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
1:100,000-scale topographic map, a set of aerial photographs covering the area, field survey tools and equipment such as compass, chain, GPS device if available, etc.

Time

Four hours

Process

1. Discuss with the participants the steps to be followed in mapping land uses and forest categories. The steps are given in the following learning notes.

2. Form the participants into groups. Ask each group to prepare a forest map following the procedures discussed.

Learning notes

Steps in mapping land uses and forest categories to be followed by the PAFO forest assessment team:

Step 1. Tentatively delineating the FMU. Information from the topographic map and the aerial photographs are used by the team to identify forest areas that could possibly form the FMU. These areas are marked on the topographic map.

Step 2. Mapping land uses and forest categories. The team prepares a land-use map of the areas within the tentatively delineated FMU following a similar procedure described in Module 2.2.2. In lieu of conducting a more elaborate land-use planning exercise, the following steps are undertaken in mapping the forest categories:

1. A thirty-meter wide strip on both sides of a stream (or fifty meters on both sides of a river) is delineated on the map as a riparian buffer zone.

2. Areas too steep for trucks to negotiate during the dry season are delineated on the map as protection forests.
3. Large steep areas, where wildlife is likely to take refuge from human disturbance, are delineated on the map as biodiversity conservation forests. Other conservation forest areas include wetlands and spirit forests.

4. Open areas that cannot grow large trees because of their poor site condition, e.g. shallow soil on rock base, are delineated on the map as non-productive land.

5. Heavily logged forests with stand density of less than 75 m$^3$/ha are delineated on the map as regenerating forests.

6. Dry dipterocarp forests stocked with short trees (indicative of their location in poor sites) are delineated on the map for local use by the village.

7. Forests with commercial potential, e.g. dry dipterocarp forests well stocked with tall trees, dry evergreen forests, mixed deciduous forests, and pine forests, are delineated on the map as production forests.

8. Paddy, gardens, fish ponds, other crop land, and settlement areas, including forests that have been identified for conversion to other land uses, are delineated on the map as agricultural or non-forest land.
Lesson 2.2.3.2
Delineating the FMU

Objectives

At the end of the lesson, the participants should be able to:
1. Allocate and delineate land for the FMU;
2. Prepare a map the FMU and a tabulated summarily of the forest zones and compartments of the FMU.

Methods

Discussion and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Mapping tools and materials
1:100,000-scale topographic map, a set of aerial photographs covering the area, field survey tools and equipment such as compass, chain, GPS device if available, etc.

Time

Four hours

Process

1. Discuss with the participants the steps in allocating and delineating land for the FMU. These steps are included in the following learning notes.

2. Ask each group to prepare a map of the FMU following the discussed steps.

Learning notes

Steps in allocating and delineating land for the FMU:

**Step 1. Allocating land for the FMU.** Using the map of the forest zones and other land uses, land is allocated for the FMU based on the following considerations:

1. The FMU is primarily a forest area intended for forest production to generate revenue for its owners and managers.

2. It is preferably contiguous rather than composed of scattered land parcels.

3. It may include the different categories of forests, i.e. forest plantations, regenerating forests, protection forests, conservation forests, and production forests, where different management prescriptions would be applied.

4. While the FMU may be contiguous, non-forest zones may occur within its boundaries, non-productive land, settlement areas, paddy, etc. These and other non-forest uses are not part of the FMU, but they are considered in planning the management of the FMU.
**Step 2. Delineating the FMU.** The boundaries of land parcels that have been allocated for the FMU are delineated on a 1:20,000-scale map, which was prepared in Lesson 2.2.3.1. Then the outer boundaries of the FMU are delineated on the map based on the boundaries of the allocated land parcels.

**Step 3. Completing the mapping of the FMU.** Forest zones are indicated in the map. These include:

1. **Production forest zone.** Forest types with commercial potential (e.g. mixed deciduous forest, dry evergreen forest, high dry dipterocarp forest, and pine forest) having a stand density of 75 m$^3$/ha or more.

2. **Regenerating forest zone.** Forest types with commercial potential having a stand density of less than 75 m$^3$/ha.

3. **Forest plantation zone.** Areas that have been developed into forest plantations.

4. **Protection forest zone.** Stream buffer zones (i.e. 30 m on both sides of streams or 50 m on both sides of rivers) and steep areas (e.g. areas too steep to access by a logging truck during the dry season).

5. **Conservation forest zone.** Large contiguous areas (1000 ha or more) around mountain tops and ridges where wildlife usually seeks refuge when lowland forests are disturbed.

6. **Village-use forest zone.** Low dry dipterocarp forest with no commercial potential and being used by the village as grazing land and for collection of fuelwood, resin, edible plants, and other non-timber forest products.

7. **Nonproductive land.** Open areas with very shallow soils based on rock material.

8. **Wetland.** Areas always under water, ponds, marshland, etc.

9. **Nonforest land.** Settlements and farm land included within the boundaries of the FMU.

Delineation of the different zones is followed by the delineation of compartments, i.e. zone sections defined by natural boundaries (e.g. streams) or man-made boundaries (e.g. forest tracks and trails).

**Step 4. Estimating the area of compartments and zones.** Each compartment is assigned a number and its area is estimated (e.g. by planimeter or using an area template). A summary tabulation of compartment and zone areas is then prepared. The map and area information will be used in subsequent work, e.g. forest inventory and forest management planning.
Module 2.2.4
Registering land in a village cadastre

Introduction

This module presents a way by which a village forestry training course on land-use planning may be extended to include a village program for assisting in the government land allocation program. It is aimed at providing the forestry staff with the basic concepts and skills to assist the village land-use allocation committee and village cadastral survey teams in running the village cadastre, so that the villagers can be entrusted with the mapping, registering, and monitoring of users and their use of land that have been allocated to them.

This module is an extension of Module 2.2.2 but it is presented last in the course because it may be deferred to a future date, if the program, project, or activity intends only to focus on delineating land for the FMU at this time, taking up the government land allocation program at another time.

Contents

The module consists of four lessons:

Lesson 2.2.4.1 Understanding the village cadastre and the cadastral map. In this lesson, the participants learn the concept of the village cadastre and the minimum requirements for an acceptable cadastral map in the context of a Lao rural village.

Lesson 2.2.4.2 Basic skills in simplified plane table surveying. The participants learn the basics of doing a simplified plane surveying to enable them to teach the same skills to the village teams.

Lesson 2.2.4.3 Simplified plane table surveying and mapping. The participants learn a simple surveying and mapping method that can be taught to village teams, applying what they have learned in Lesson 2.2.4.2.

Lesson 2.2.4.4 Registering land in the village cadastre. The participants learn how to assist villagers in organizing their own village cadastre for keeping track of changes in land use, ownership, and valuation.
Lesson 2.2.4.1
Understanding the village cadastre and the cadastral map

Objectives

At the end of the lesson, the participants should be able to:
1. Understand what a map is;
2. Understand the uses of a cadastral map;
3. Appreciate the benefits of having a village cadastre.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape
Scale ruler (1:1000 and 1:500 indicated in each side, see attached handout)
Village land-use map (from Lesson 2.1.3.4)
Sample of a cadastral map of a village (see attached handout)
Sample of a cadastral map of a parcel of land (see attached handout)

Time

Two hours

Process

1. Discuss with the participants the concept of a map as a model of a parcel of land. Use the following guide questions:
   - What is a model? (It is a representation of the relevant features of a real-world object.)
   - Is a map a model?
   - What is it a model of?

2. Ask for examples of the features of the land that are represented in the village land-use map as its model. Ask also for the map of a parcel of land.

3. Study with the participants the various parts of a map (e.g. village land-use map):
   - Map title
   - Map legend
   - Map scale
   - North pointer
   - Map points, lines, polygons, colors, and other features
   - Makers of the map
   What do these parts tell about the land being mapped?

4. Discuss with the participants the meaning of a map scale using the following guide questions:
   - How long on the ground is a line on the map?
   - How do you determine this?
5. Ask the participants to calculate distances on the ground given different scales and map distances. Do not use formulas; use instead the scale ruler for this exercise. Ask them to draw lines on the map for given distances on the ground using a scale ruler.

6. Use the model to illustrate what a village cadastral map is. Repeat for the cadastral map of a parcel of land.

7. Discuss with the participants the uses of a cadastral map. Ask the participants their opinions on the advantages of having such a village cadastral map and maintaining a village cadastre.

Learning notes

A **cadastre** can be defined as a systematically arranged public inventory of data of all land parcels within a certain area, based on a survey of their boundaries. The parcels are systematically identified by means of some separate designation. The parcel boundaries and identifiers (adjacent roads, stream, etc.) are shown on large-scale maps, e.g. a village land-use map.

For example, in the village cadastre, we can initially designate the land compartments as the parcels, and use the compartment numbers as the parcel numbers. (The parcel numbers may be changed later when the government has issued rules on numbering of land parcels.)

Inside the compartment or parcels are smaller parcels referred to as sub-parcels. The sub-parcels inside a given parcel can be designated a number consisting of the parcel number and another number from a series starting from number 1. For example, suppose a parcel of paddy fields has a number 10. Individual paddy fields within this parcel are numbered 10-1, 10-2, 10-3, etc.

All parcels and sub-parcels are included in a land register. The land register (land parcel database) shows for each parcel and sub-parcel the data on land use, size, land user (if known) and nature of legal rights (e.g. owner, contractor, lessee), value of the parcel, etc.

Sample land register:

<table>
<thead>
<tr>
<th>Parcel no.</th>
<th>Area (sq.m.)</th>
<th>Land use</th>
<th>Land user</th>
<th>Legal status</th>
<th>Value (kips)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-1</td>
<td>2500</td>
<td>Paddy</td>
<td>Khamson</td>
<td>Owner</td>
<td>250,000</td>
</tr>
<tr>
<td>10-2</td>
<td>1500</td>
<td>Paddy</td>
<td>Houmphan</td>
<td>Lessee</td>
<td>150,000</td>
</tr>
</tbody>
</table>

If a village has a cadastre and land register, it will be easier to resolve any conflicts concerning land ownership. The land owners could be encouraged to have their lands surveyed, mapped, and included in the village land register. They could also have a more secure title to the land they owned. Data from the village cadastre could be used as the basis for securing the title, provided the relevant government agency is convinced of the validity of the procedures and the reliability of the data.
Handout no. 2.2.4.1.1. Scale ruler
Handout no. 2.2.4.1.2. Sample of a village cadastral map
Lesson 2.2.4.2
Basic skills in simplified plane table surveying

Objectives

At the end of the lesson, the forestry staff should be able to:
1. Acquire the basic skills for conducting a simplified plane table surveying;
2. Teach the same skills to the village teams.

Methods

Discussion, demonstration, and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Plane table, compass, and chain
Scale ruler combination pointer, mapping paper, and pencil

Time

One hour

Process

1. Demonstrate to the participants how to do simplified plane table surveying.

2. Ask each group to do plane table surveying themselves. They should learn the following steps:
   • Positioning the plane table
   • Using the compass to mark the north direction
   • Determining the starting point and scale (use either 1:1000 or 1:500)
   • Marking other points on the map along the same direction as the points on the ground by measuring the distance and using the scale ruler
   • Moving the plane table to another station and orienting it to the previous station
Lesson 2.2.4.3
Simplified plane table surveying and mapping

Objectives

At the end of the lesson, the participants should be able to conduct a simplified plane table survey and produce a cadastral map of a parcel of land.

Methods

Supervised group work

Materials

Plane table, compass and chain
Scale ruler combination pointer, mapping paper, and pencil
Plastic template calibrated for 1:1000 and 1:500 scale

Time

Two hours

Process

1. Select an appropriate area on the ground. Place stakes to correspond to boundaries of a land parcel. The problem is being able to map the boundaries directly using the plane table method.

2. Ask each group to survey and plot the boundaries of the land parcel, using the steps learned in Lesson 2.2.4.2. Use a scale of 1:1000.

3. Ask each group to make a map based on the plot done in Step 2 as follows:
   - Place a tracing paper on top of the 1:1000 plot to make a new map by converting the scale from 1:1000 to 1:500.
   - Use the procedure illustrated below:

   ![Diagram](image)

   - Extend the sides from the reference point using the scale ruler

4. Calculate the area of the land parcel by counting squares using the plastic template.

5. Finalize the map by including the title, area, north pointer, legend, maker of the map, etc.
Lesson 2.2.4.4
Registering land in the village cadastre

Objectives

At the end of the lesson, the participants should be able to learn the steps to follow in setting up a village cadastre and initiate the registration of land parcels in the village cadastre and land register.

Methods

Discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

One hour

Process

Discuss with the participants the process of setting up a village cadastre, including the registration of the initial land parcels in the village cadastre and land register.

Learning notes

Steps in setting up a village cadastre:

1. Ask the village if they are interested in setting up a village cadastre. If they are, proceed with the next steps below. If they are not interested, repeat the process at some time in the future when interest has been developed.

2. Ask the village administration to organize the village land allocation committee and cadastral mapping teams.

3. Ask the cadastral mapping team to make a village cadastral map (see attached handout) based on the village land-use map, using a scale of 1:10,000, and using the compartment numbers as parcel numbers.

4. Ask the village land allocation committee to prioritize the survey and mapping of land parcels (see attached handout).

5. Ask the village cadastral mapping teams to initiate the survey and mapping of sub-parcels within the top-priority parcels.

6. Assign sub-parcel numbers and enter the surveyed and mapped sub-parcels into the village land registry.

7. Provide a copy of the parcel map to the land owner. Retain a copy to be kept by the village land allocation committee as part of the village land register.

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Course 2.3
Forest inventory for management planning purposes

Introduction

This course is aimed at helping the forestry staff develop the capability to train and assist village teams in conducting forest inventories for management planning purposes. The participants learn a simplified way of conducting a forest inventory that is statistically valid for the intended purposes. They learn how to design the forest inventory, conduct the fieldwork, calculate the results, and write the forest inventory report.

Contents

This course consists of three modules:

Module 2.3.1 Designing and preparing for the forest inventory. In this module, the participants learn how to design the forest inventory and prepare for the fieldwork.

Module 2.3.2 Conducting the forest inventory. The participants learn the steps to be followed in conducting the forest inventory and how to execute each step.

Module 2.3.3 Calculating and reporting the forest inventory results. The participants learn how to calculate the results and present them in a form convenient for subsequent use.
Module 2.3.1
Designing and preparing for the forest inventory

Introduction

This module is aimed at strengthening the technical capability of the forestry staff to train and assist village teams in designing and planning forest inventories for management planning purposes. First the participants learn how to select compartments to be inventoried. Then they learn the basics of forest inventory design and how to undertake the preparation needed for the subsequent fieldwork.

Contents

The module consists of four lessons:

Lesson 2.3.1.1 Overview of the forest inventory. In this lesson, the participants understand the relationship between forest inventory and the other village forestry activities, and learn the objectives of a forest inventory for management planning purposes.

Lesson 2.3.1.2 Defining the village forest management unit and selecting compartments to be inventoried. The participants learn how to delineate the village forest management unit and select the compartments to be inventoried.

Lesson 2.3.1.3 Designing the forest inventory. The participants learn the basics of forest inventory design, in particular a simple design suitable for village forestry.

Lesson 2.3.1.4 Preparing for the forest inventory fieldwork. The participants learn what things to prepare before undertaking the forest inventory fieldwork.
Lesson 2.3.1.1
Overview of the forest inventory

Objectives

At the end of the lesson, the participants should be able to:
1. Understand how forest inventory relates to other village forestry activities;
2. Understand the objectives of the forest inventory.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape
Poster of village forestry activities

Time

Thirty minutes

Process

1. Use the poster of village forestry activities to discuss with the participants the place of forest inventory in village forestry.

2. Continue the discussion on the objectives of the forest inventory.

Learning notes

The forest inventory provides information about the forest that is necessary for management planning purposes. Examples are stand density in terms of volume of trees per hectare and number of trees per hectare, which may be by species or by diameter size classes. The most important of this information is the stand density, usually measured in m$^3$/ha. Many management decisions are based on the stand density of a compartment, such as:

- Should the compartment be put under timber production?
- How much timber should be harvested per year from the compartment?
- What operations should be introduced in the compartment to improve the timber stand?

The results from the forest inventory should be statistically valid, i.e. the estimates should be within allowable limits, e.g. 20% error from the mean volume. However, a forest inventory for the purpose of long-term management planning does not have to be as precise as that for the purpose of annual operations planning. The former shows the possibility and potential for sustainable production of different forest products; the latter shows specifically how much can be sustainably produced in a given year and provides the information needed to conduct activities that ensure that management is sustainable.
Lesson 2.3.1.2
Defining the village forest management unit and selecting compartments to be inventoried

Objectives

At the end of the lesson, the participants should be able to:
1. Define the boundaries of the village forest management unit (VFMU);
2. Select from among the VFMU compartments which ones are to be inventoried.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape
Mapped village land-use plan

Time

Thirty minutes

Process

1. Discuss with the participants the extent of forest resources that will be managed in village forestry. For illustration, make use of a mapped village land-use plan. Are the compartments included open to conversion to other land uses? Are they part of a permanent forest estate of the village?

2. Continue the discussion on the selection of compartments for the forest inventory. Which forest compartments need not be inventoried? Discuss the reasons why.

Learning notes

The VFMU constitutes the permanent forest estate of the village, i.e. the village itself has decided that henceforth none of the land parcels within the VFMU will be open to conversion to farms or any other land uses. The VFMU includes all types of forests, e.g. production forests, conservation forests including sacred forests, protection forests, degraded and regeneration forests, shrublands, and forest plantations, as well as open and non-productive lands included therein. For management planning purposes the forest resources of the VFMU are assessed by means of a forest inventory. The compartments to be inventoried are selected on the basis of the following rules:

1. All production forest compartments must be inventoried.
2. Degraded forests, shrublands, and other areas with low stocking are not inventoried as fully as production forests. It is enough to assess their regeneration so that proper silvicultural decisions regarding the development of the area can be made later.
3. Conservation forests and protection forests (e.g. stream buffer zones, forests with steep slopes) need not be inventoried. However, an assessment of biodiversity of these forests may be undertaken depending on the forest management objectives.
Lesson 2.3.1.3
Designing the forest inventory

Objectives

At the end of the lesson, the participants should be able to:
1. Understand the concept of sampling in a forest inventory, including sampling method, sampling precision, and sampling intensity;
2. Learn how to design a simple line-plot sampling design of a forest inventory;
3. Learn how to layout the striplines and sample plots in the forest inventory map.

Methods

Discussion, lecture, demonstration, and supervised individual work

Materials

Large brown sheets of paper, marker, and masking tape
Portion of a map of the VFMU showing the compartments to be inventoried
Ruler, compass, protractor, transparent paper, pencils, fine-point markers

Time

Two hours

Process

1. Discuss with the participants the concept of sampling in a forest inventory, including sampling method, sampling precision, and sampling intensity. Use the handout on sampling method for forest inventory and types of sample plots (see attached handouts).

2. Explain the components of the line-plot forest inventory sampling design that is suitable for village forestry. Illustrate the design for both the high forest (i.e. dry evergreen and mixed deciduous forest types) and the dry dipterocarp forest.

3. Ask each participant to draft an inventory design (i.e. layout striplines and sample plots) on the portion of a map of the VFMU (see attached handout).

Learning notes

Sampling method

Forest inventory is done by sampling, since the measurement of the entire forest population is not practical. There are several sampling methods that can be used, such as simple random sampling, systematic sampling, stratified sampling, cluster sampling, and two-phase sampling (see attached handout); and several types of sampling plots, such as fixed-radius circular plots, variable-radius circular plots, and rectangular plots (see attached handout). An appropriate sampling method should be selected by a trained forestry staff. The village forest inventory teams do not need to know all the intricacies of the sampling method, only how to implement the sampling.
In FOMACOP village forestry pilot sites, a compartment-wise, systematic sampling using the line-plot method was used because it is simple, easy to implement, and adequate for planning purposes. For this method the inventory design usually consists of a baseline, parallel striplines which are perpendicular to the base line, and sample plots placed at regular spacing along the striplines. In narrow, irregularly shaped compartments, a baseline may be omitted and striplines may follow one after the other. The sample plots are fixed-radius circular sample plots with a radius of 17.84 m corresponding to an area of 0.1 ha.

**Inventory precision and sampling intensity**

The precision of a forest inventory differs for different purposes. A forest inventory done for the purpose of long-term management planning does not have to be as precise as that for the purpose of annual operations planning. The former shows the possibility and potential for sustainable production of different forest products; the latter shows specifically how much can be sustainably produced in a given year and provides the information needed to conduct activities that ensure that management is sustainable. An acceptable precision for a forest inventory done for long-term management planning purposes could be one which provides volume estimates with as much as 20 percent error from the mean volume for compartment sizes of about 100 hectares. This precision, however, is not good enough for planning how individual trees are to be cut.

Sampling intensity is measured as a ratio of the area sampled per unit of inventoried land. It can be expressed in percent or in terms of the number of sample plots measured per hectare. The higher the sampling intensity, the more plots are measured per hectare, and the lesser is the spacing between plots. Selection of the sampling intensity is a compromise between inventory precision and cost. The higher the precision requirement, the more sample plots per hectare are measured, and the more time-consuming and costly is the inventory.

Sampling intensity is also affected by forest stand conditions. To attain the same level of precision, the sampling intensity differs by forest type, since the homogeneity of the forest stand, and hence the variation among estimates of stand volume, are different from one forest type to another. The more homogeneous the forest stand is, the lesser is the sampling intensity required.

For example, to attain an allowable error of 20% of the mean volume for compartment sizes of about 100 ha, the dry dipterocarp forest compartments in the FOMACOP village forestry pilot sites were inventoried using a sampling intensity of one 0.1-ha plot per 10 hectares or 1% (0.1 ha/10 ha x 100). Sample plots were laid out at a spacing of 200 m along strip lines spaced 500 m apart. To attain the same precision, the mixed deciduous and dry evergreen forest compartments were inventoried using a sampling intensity of one 0.1-ha plot per 3 hectares or 3.3%. Sample plots were laid out at a spacing of 100 m along strip lines 300 m apart.

**Laying out sample plots on the map**

The position of sample plots in a compartment is indicated on the forest inventory map by drawing the striplines and the sample plots along the striplines. The starting point and compass bearing of each strip must be clearly shown, as well as the distance to the first plot and between plots. Compass bearings are measured with a compass or protractor.
The starting point of a stripline must be easy to locate on the ground. For example, corners of rice paddy or junctions of streams are good starting points. The center of the first plot is located at half the distance between sample plots (e.g. 100 m in dry dipterocarp forests and 50 m in mixed deciduous forests and dry evergreen forests). Figure 1 shows a part of a forest inventory map illustrating how sample plots are laid out.

**Figure 1** – Layout of sample plots in a forest inventory map
Handout no. 2.3.1.3.1. Sampling methods for forest inventory

Simple random sampling

Systematic sampling by circular plots

Stratified systematic sampling with unequal sampling ratio in different strata

Cluster sampling with four-plot clusters
Handout no. 2.3.1.3.2. Kinds of sample plots

Circular plot

Rectangular plot

Variable radius plot

Relascope plot (trees shaded)
Handout no. 2.3.1.3.3. Portion of a map of a VFMU showing compartments to be inventoried
Lesson 2.3.1.4
Preparing for the forest inventory fieldwork

Objectives

At the end of the lesson, the participants should be able to learn what things to prepare before undertaking the forest inventory fieldwork.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape
Sample forest inventory forms

Time

Thirty minutes

Process

Discuss with the participants what else to do and what things to prepare before undertaking the forest inventory fieldwork.

Learning notes

Things to do or prepare before undertaking the forest inventory fieldwork:

1. **Organize and train the village forest inventory teams.** Each team is composed of four to five villagers, who should be familiar with the forest and can identify the forest species. A trained forestry staff is needed to train in turn the village forest inventory teams. The number of teams to be formed depends on the size of the forest to be inventoried and the time allowed to complete the work. For example, if a village has 3000 ha of dry dipterocarp forests and 500 ha of mixed deciduous/dry evergreen forest, the time needed to conduct the field work could be as follows:

Dry dipterocarp forests (DDF):
- number of sample plots is 3000 ha/10 ha per plot = 300 plots
- time needed is 300 plots/10 plots per day = 30 working days

Mixed deciduous/dry evergreen forests (MDF/DEF):
- number of sample plots is 500 ha/3 ha per plot = 167 plots
- time needed is 167 plots/5 plots per day = 33 working days

Preparation for fieldwork and calculation of the results take 5-10 days. With one inventory team, the total time needed for the forest inventory would be 10+30+33 = 73 working days or 12 weeks including one day off per week. With two inventory teams, the time needed would be about 7 weeks.
A trained DAFO staff provided with the necessary logistics (e.g. motorbike and daily allowance) can conduct the training of the village teams. The teams must be trained to do the work and oriented on the work targets and the role of each member. The team leader is responsible for leading the work of the team, laying out the strip lines and sample plots, and data recording. The other members of the team assist in cutting and laying out the striplines, locating the sample plots, and identifying and measuring the trees, bamboo, rattan and other selected NTFP.

2. **Prepare the forest inventory map and forms.** The forest inventory map and an adequate number of sampling forms need to be prepared. The attached handouts show examples of forest inventory forms. Each form consists of two parts. The upper part contains general information about the inventory and the specific compartment; the lower part contains the measurements in the sample plots. The general information consists of the following:

- Name of the village
- Number of the compartment
- Forest type in the compartment
- Area of the compartment
- Date of measurement
- Name of the team leader
- Sheet number (several sheets may be needed in large compartments)

The sample plot measurements include:

- The number of trees in each species and dbh classes counted for the entire compartment (i.e. all the plots in the compartment)
- Provision for recording the frequency of occurrences of non-timber forest products (e.g. bamboo, rattan, resin trees) in the compartment

This forest inventory form can provide volume estimates for the compartment but not the variation of volume estimates among plots (if estimates of statistical variations are needed a pilot forest inventory has to be made using a different form, which records data separately for each plot, see attached handout). However, it is adequate for compartments where no commercial logging is allowed (e.g. poor dry dipterocarp forests), with the advantage that the time for conducting the inventory and calculating the results is considerably shortened. This method was employed in the dry dipterocarp forests in the FOMACOP village forestry pilot sites.

3. **Prepare tools and materials to be brought to the forest.** A minimum set of equipment and materials to be prepared are as follows:

- Forest inventory map and forms
- Field compass
- Diameter tape and calliper
- Measuring tape 50 m and ropes
- Machetes and knives
- Writing tools
- First aid kit
- Camping equipment (tent, cooking and eating utensils) and food provisions
### Handout no. 2.3.1.4.1. Sample forest inventory form for the dry dipterocarp forest compartment

<table>
<thead>
<tr>
<th>Village</th>
<th>Compartment no.</th>
<th>Forest type or description</th>
<th>Date</th>
<th>Measured by</th>
<th>Sheet no</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dbh class cm</th>
<th>Koung</th>
<th>Chick</th>
<th>Sat</th>
<th>Suak mon</th>
<th>Deng</th>
<th>Other tree species</th>
<th>Resin tapped tree</th>
<th>Dead tree</th>
<th>NTFP</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 - 19,9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 - 29,9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 - 39,9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 - 49,9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>50 - 59,9</td>
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<td>60 - 69,9</td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>&gt;70</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Density of regeneration in the sample plot** (height of sapling under 2 meters)

- 0 Empty (no saplings)
- 1 Sparse (average distance between saplings > 3.2 m)
- 2 Moderate (average distance between saplings 3.2 - 1.4 m)
- 3 Dense (average distance between saplings < 1.4 m)

**Number of plots**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31-32 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
### Handout no. 2.3.1.4.2. Sample forest inventory form for the high forest compartment

Village ________________  Compartment no. ____  Forest type or description _________________  Date ______  Measured by _______________  Sheet no __

<table>
<thead>
<tr>
<th>Dbh, cm</th>
<th>Lan (Puay)</th>
<th>Deng</th>
<th>Si</th>
<th>La en</th>
<th>Bak</th>
<th>Other tree species</th>
<th>Resin tapped</th>
<th>Dead tree</th>
<th>NTFP</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 - 19.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Bamboo</td>
</tr>
<tr>
<td>20 - 29.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Rattan</td>
</tr>
<tr>
<td>30 - 39.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Others</td>
</tr>
<tr>
<td>40 - 49.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<tr>
<td>60 - 69.9</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Density of the regeneration in the sample plot** (height of saplings under 2 meters)

- **0** Empty (no saplings)
- **1** Sparse (average distance between saplings > 3.2 m)
- **2** Moderate (average distance between saplings 3.2 - 1.4 m)
- **3** Dense (average distance between saplings < 1.4 m)

**Number of plots**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31-32 |
Module 2.3.2
Conducting the forest inventory

Introduction

This module is aimed at strengthening the technical capability of the forestry staff to train and assist village teams in conducting the forest inventory fieldwork. The participants learn how to locate and layout striplines and sample plots in the forest, measure trees in the sample plots, and enter the data into the forest inventory form.

Contents

The module consists of three lessons:

Lesson 2.3.2.1 Locating striplines and sample plots on the ground. In this lesson, the participants learn how to locate striplines and sample plots on the ground following the inventory design depicted in the forest inventory map.

Lesson 2.3.2.2 Measuring the sample plots. The participants learn how to measure trees in the sample plots and enter the data into the forest inventory form.

Lesson 2.3.2.3 Forest inventory field exercise. The participants apply what they have learned in the classroom by conducting a field exercise in forest inventory.
Lesson 2.3.2.1
Locating striplines and sample plots on the ground

Objectives

At the end of the lesson, the participants should be able to learn how striplines and sample plots are located on the ground following the forest inventory design.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape
Forest inventory map

Time

Thirty minutes

Process

Use and sample forest inventory map and discuss with the participants the steps in locating striplines and sample plots on the ground.

Learning notes

Locating striplines and sample plots on the ground

1. The village forest inventory team goes to the compartment and locates the starting point of the stripline with the help of the forest inventory map. A pole or standing tree is used to mark the starting point.

2. The compass bearing of the stripline (written on the forest inventory map) is taken and the predetermined distance is measured to the first sample plot. In an MDF/DEF compartment the stripline has to be cleared so that walking is possible along it. In a DDF compartment clearing along the stripline is not necessary because of the general absence of thick undergrowth there.

3. To locate the next plot along the stripline, the predetermined distance between plots is measured with the measuring tape or rope and the center of the sample plot is marked with a pole. The distance between plots can also be measured by pacing (counting double steps), to do the work faster. Nevertheless, the sample plots must be located as accurately as possible. Locating the sample plots must not be done subjectively, because it causes systematic error in the inventory results.

4. The sample plot is laid out as a circular plot with a fixed radius of 17.84 m. The area of the plot is 0.1 ha (1000 m²).
Lesson 2.3.2.2
Measuring the sample plots

Objectives
At the end of the lesson, the participants should have learned how to measure trees in the sample plots and enter the sample plot data into the forest inventory form.

Method
Discussion

Materials
Large brown sheets of paper, marker, and masking tape
Forest inventory form
Caliper, diameter tape

Time
One hour

Process
1. Discuss with the participants how to measure trees in a sample plot. What trees are to be measured? What measurements are taken? Demonstrate the use of a caliper and diameter tape. At what point in the tree is the dbh measured?

2. Discuss with the participants how to enter the sample plot measurements into the forest inventory form.

Learning notes

Measuring trees in a sample plot

1. The team members take measurements. Tree species are identified, the dbh of the trees are measured, the average density of regeneration in the sample plot is estimated, and the occurrences of non-timber forest products (NTFP) are counted. Tree height and bole length measurements are usually not taken. If needed in the calculations, they can be estimated based on dbh.

2. All living trees with dbh of at least 5 cm as well as dead trees, which are still standing, with commercial value, and with a dbh of at least 20 cm, are measured if they are located within or at the border of the plot. Trees inside the 17.84-m radius are measured in a clockwise order. A border tree is measured if more than half of its cross section at the height of 1.3 m is inside the radius of the plot.
3. The dbh is measured at the height of 1.3 m from the ground level or starting point of the stem with a calliper or diameter tape (for large trees with dbh exceeding the calliper opening). The height of the measurement point is determined by using a 1.3-m stick. If there is a fork below 1.3 m, the tree is considered as two stems and the dbh is measured for both of them. If there is an irregular thickness at the height of 1.3 m, or if there is a large buttress, the diameter is measured at the point where the regular stem begins (Figure 1).

![Figure 1 - Measurement of diameter at breast height](image)

**Recording data**

1. The team leader records data.

2. Columns for tree counts of the five most common tree species found in the forest are provided. For example, in the forest inventory form for DDF compartments, separate columns are provided for mai koung, mai chik, mai sat, mai suak mon and mai deng. In the forest inventory form for MDF/DEF compartments, separate columns are provided for are mai puay, mai deng, mai si, mai laen and mai bak. Two columns are left empty for other more frequently occurring or otherwise important tree species. All other tree species, resin tapped trees, and dead trees with commercial value (dbh more than 20 cm) are marked in their own columns. After the tree species and dbh class have been determined, the tree count is recorded on the field sheet, for example, by using the so-called logger's huts with one complete hut equalling ten counted trees (Figure 2). This kind of marking saves space on the form.

![Figure 2 – Examples of tree counts using the logger's hut method](image)

2 trees

| 5 trees |

| 10 trees |

| 29 trees |

541
3. Assess the occurrence of natural regeneration in the forest compartment as follows: The average density of regeneration in each sample plot is classified visually into empty, sparse, moderate, or dense classes. Vigorous saplings less than 2 m in height are considered as regeneration. If no saplings are found in the sample plot, the density class is 0. Regeneration is sparse (density class 1) if there are only a few saplings, i.e. less than 1000 small trees per hectare, or if the average distance between saplings is more than 3.2 m. Regeneration is moderate (density class 2) if there are from 1000 to 5000 trees per hectare, or if the average distance between saplings is about 3.2 - 1.4 m. Regeneration is dense (density class 3) if there are more than 5000 trees per hectare, or if the distance between saplings is less than 1.4 m. The density class code is entered on the space provided in the form.

4. **Number of plots.** After counting the trees and estimating the average density of regeneration, the number of the sample plots in the compartment is marked on the forest inventory form along with the code for the regeneration density class.

5. **Non-timber forest products.** Non-timber forest products (NTFP) are provided with their own column. In the forest inventory form for dry dipterocarp forests, columns are provided for NTFPs, which should be identified. In the forest inventory form for mixed deciduous/dry evergreen forests, columns are provided for bamboo, rattan, and other NTFPs (which should be identified). Live bamboo with heights of more than 1.3 m is recorded as clumps. Solitary bamboo culms are also recorded as clumps. Live rattan with length of more than 3 m is recorded.
Lesson 2.3.2.3  
Forest inventory field exercise

Objectives
At the end of the lesson, the participants should be able to apply what they have learned in the classroom by conducting a field exercise in forest inventory.

Method
Field exercise

Materials
Forest inventory forms
Caliper, diameter tape, 50-m tape, brush clearing knives

Time
Two hours

Process
1. Form the participants into teams of 4-5 persons. Ask each member of the team to take turns in playing the role as team leader, brusher, chainman, and tree measurer.

2. Select a suitable forest nearby for conducting the exercise. Assume a point on the ground to be the starting point of a stripline. Assign one team there. Choose different starting points, say 100 m apart, for each team. Use an assumed bearing that all teams should use to start cutting the stripline.

3. After each team goes for 50 m along the stripline, ask them to mark the location of the first plot.

4. Ask the team to make measurements in the sample plot and to enter the data into the forest inventory form.

5. Continue the stripline along the chosen bearing for 100 m and locate the second plot. Ask the team to make measurements in the sample plot and to enter the data into the forest inventory form.
Module 2.3.3
Calculating and reporting the forest inventory results

Introduction

This module is aimed at strengthening the technical capability of the forestry staff to train and assist village teams in calculating and reporting the results of a forest inventory. The module also includes planning the work to be done by the staff with village teams to conduct forest inventory.

Contents

The module consists of two lessons:

Lesson 2.3.3.1 Calculating the forest inventory results. In this lesson, the participants learn how to calculate the forest stand statistics from a forest inventory.

Lesson 2.3.3.2 Writing the forest inventory report. The participants learn how to present the results of the forest inventory in a simple report.
Lesson 2.3.3.1
Calculating the forest inventory results

Objectives

At the end of the lesson, the participants should have learned how to calculate the forest stand statistics from a forest inventory.

Methods

Discussion, demonstration, and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Sample forest inventory data for five compartments (see attached handouts)
Forest inventory calculation forms (see attached handouts)
Pocket calculator, writing tools

Time

Two hours

Process

1. Discuss with the participants and demonstrate how to transfer data from the forest inventory form to the forest inventory calculation form. Use the attached handouts (sample filled-out forest inventory forms for five compartments and sample forest inventory calculation forms).

2. Ask each group to complete entering the data given in the handout to the forest inventory calculation forms. Each group member should be assigned one compartment.

3. Discuss with the participants and demonstrate how to calculate the forest stand statistics from the forest inventory.

4. Ask each group to complete the calculation of forest stand statistics, assigning each member to take up one compartment.

Learning notes

Transferring data from the forest inventory forms to the inventory calculation forms

Data from the forest inventory forms are carefully transferred to the inventory calculation forms before the results are computed. The inventory calculation form consists of two parts. The upper part of the sheet contains the general information. The lower part contains the copied forest inventory data and the calculated results.
The general information includes:
1. Name of the village
2. Number of the compartment
3. Forest type
4. Area of the compartment
5. Date of calculation
6. Name of the team member who calculated the results
7. Number of sample plots counted from the field sheet

The forest inventory data, i.e. the frequency of occurrence of specific tree species, other tree species, resin tapped trees, and dead trees in each diameter class, and the quantity of each NTFPs, are transferred from the forest inventory forms to the inventory calculation forms.

**Calculating forest stand statistics**

A pocket calculator is used to calculate the forest stand statistics. The inventory calculation form for a DDF compartment differs from that for an MDF/DEF compartments in the calculation coefficients since the sampling intensity is different for these forest types. The main statistics calculated are the estimates of the volume and number of trees in the compartment, which can also be expressed on a per hectare basis. These and the other results should be clearly and easily obtained from the forest inventory report.

The team calculates the dbh distribution and the average density of regeneration. Columns of the sheet, which are shaded, refer to the number of stems per hectare and for the compartment. It should be fairly easy to teach the village team to calculate the bole volume per hectare and for the compartment, as well. The DAFO extension worker should provide assistance especially during the first time when the village team is not yet proficient.

Calculation is done as follows:

1. **Area factor.** The area factor (AF) of the compartment is used to convert plot data to compartment data. It is computed by dividing the area of the compartment by the total area of the sample plots.

2. **Number of sample trees in each dbh class.** For each dbh class, the number of sample trees by species is summed up (the sums are, say, A1, A2, etc.).

3. **Number of trees in each dbh class in the compartment.** The number of trees by diameter class (say B1, B2, etc.) shows the diameter distribution of trees in the compartment. B1, B2, etc., are calculated by multiplying A1, A2, etc., by AF. The grand total (B) is then calculated.

4. **Quantity of NTFPs.** The quantity of each NTFP in the compartment is calculated by multiplying by AF the quantity sampled. The total number of resin tapped trees is calculated in this manner as well.

5. **Number of stems per hectare.** The number of stems per hectare is calculated by dividing the total number of trees in the compartment (B) by the area of the compartment.

6. **Volume by dbh class.** The bole volume in each dbh class is calculated by multiplying the average bole volume per tree by the number of trees in the dbh class (B1, B2, etc.). The grand total ©, or the total bole volume of the compartment, is then calculated.
7. **Bole volume per hectare.** The bole volume per hectare is calculated by dividing the bole volume of the compartment by the area of the compartment.

8. **Density of regeneration.** The density of the regeneration in each sample plot is marked with number codes 0, 1, 2, or 3 on the field sheet in the row “Number of plots”. The average density of regeneration is calculated by dividing the sum of the number codes by the number of sample plots, rounded to the nearest whole number. For low-volume compartments (shrubland, grassland, etc.) only the average density of regeneration is estimated.
### Handout no. 2.3.1.1. Sample filled-up forest inventory forms for five compartments (Compartment 1)

#### Sample filled-up forest inventory forms for five compartments

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10 19.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 29.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 39.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 49.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 59.9</td>
<td></td>
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<tr>
<td>60 69.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Legend:
- 0: No trees
- 1: Trees (selected for harvesting in the current season)
- 2: Trees (selected for harvesting in the next season)
- 3: Trees (selected for harvesting in the following season)

#### Specimen:

- Species of sapling under 2 meters
- Species of sapling 2 to 4 meters
- Species of sapling 4 to 6 meters
- Species of sapling 6 to 8 meters
- Species of sapling 8 to 10 meters
- Species of sapling 10 to 12 meters

#### Notes:

- 1: Trees (selected for harvesting in the current season)
- 2: Trees (selected for harvesting in the next season)
- 3: Trees (selected for harvesting in the following season)
Sample filled up forest inventory form for Compartment 2

<table>
<thead>
<tr>
<th>ลำดับ</th>
<th>ประเภท</th>
<th>ปริมาณ</th>
<th>ขนาด</th>
<th>ชนิด</th>
<th>อายุ</th>
<th>สถานะ</th>
<th>ความสูง</th>
<th>เลขที่</th>
<th>หมายเหตุ</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-39.9</td>
<td>ต้นค้างคาว</td>
<td>1</td>
<td>39.9</td>
<td>โค</td>
<td>39.9</td>
<td>ดี</td>
<td>1.2</td>
<td>10-39.9</td>
<td>หมายเหตุ</td>
</tr>
<tr>
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<td>1</td>
<td>29.9</td>
<td>โค</td>
<td>29.9</td>
<td>ดี</td>
<td>1.2</td>
<td>30-29.9</td>
<td>หมายเหตุ</td>
</tr>
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<td>โค</td>
<td>39.9</td>
<td>ดี</td>
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<td>โค</td>
<td>49.9</td>
<td>ดี</td>
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<td>40-49.9</td>
<td>หมายเหตุ</td>
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<td>โค</td>
<td>59.9</td>
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<td>69.9</td>
<td>ดี</td>
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<td>60-69.9</td>
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<td>ดี</td>
<td>1.2</td>
<td>70</td>
<td>หมายเหตุ</td>
</tr>
</tbody>
</table>

*หมายเหตุ*:
- 0 ไม่พบอยู่ ไม่มีผลผลิต
- 1 ต้น (ไม่สามารถนำมาผลิตไม้ได้) ที่มีขนาดต้นไม้ > 3.2 m
- 2 ต้น (ไม่สามารถนำมาผลิตไม้ได้) ที่มีขนาดต้นไม้ 3.2-1.4 m
- 3 ต้น (ไม่สามารถนำมาผลิตไม้ได้) ที่มีขนาดต้นไม้ < 1.4 m
Sample filled-up forest inventory form for Compartment 3

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<th>บัตร</th>
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<th>เลขที่</th>
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</tbody>
</table>

Notes:
- 0: ไม่มี (No data)
- 1: ต้นไม้ (Tall trees height > 3.2 m)
- 2: หัวไม้ (Tall trees height 3.2 - 1.4 m)
- 3: โจร (Tall trees height 1.4 m or less)

Page 550
Sample filled-up forest inventory form for Compartment 4

<table>
<thead>
<tr>
<th>10 199</th>
<th>20 299</th>
<th>30 389</th>
<th>60 499</th>
<th>50 599</th>
<th>60 699</th>
<th>70</th>
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</thead>
</table>

Notes:
1. ชายหญิง (ชายหญิงและชายตามปกติ) (Male and female)
2. รายการ (ชายหญิงและชายตามปกติ) (Male and female)
3. รายการ (ชายหญิงและชายตามปกติ) (Male and female)

Field options:
- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25
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- 30
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- 32
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- 38
- 39
- 40
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<td>0</td>
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<td>0</td>
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<td>0</td>
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<td>0</td>
</tr>
</tbody>
</table>

*หมายเล่า:* แผนที่แสดงหุ้นหนุ่มไว้ตามลำดับในแนวแนวเหนือไปใต้ในแนวเหนือ (height of sapling under 2 meters)
0 ศิริ (ไม่มีศิริ)
1 ผิวแจ่ (ไม่เกินความสูง 3.2 เมตร)
2 ผิวแจ่ (ไม่เกินความสูง 3.2 ถึง 4.4 เมตร)
3 ผิวแจ่ (ความสูง 4.4 เมตรขึ้นไป)
### Handout no. 2.3.3.1.2. Sample forest inventory calculation form for the dry dipterocarp forest compartment

<table>
<thead>
<tr>
<th>Dbh class cm</th>
<th>Koung Chick</th>
<th>Sat</th>
<th>Suak mon</th>
<th>Deng</th>
<th>Other tree spec.</th>
<th>Resin tapp. tree</th>
<th>Dead tree</th>
<th>No. of sample trees</th>
<th>Total no. of trees</th>
<th>Vol per tree</th>
<th>Vol per class</th>
<th>NTFP</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 – 19.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A1</td>
<td>B1</td>
<td>0.062</td>
<td>C1</td>
<td></td>
</tr>
<tr>
<td>20 – 29.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A2</td>
<td>B2</td>
<td>0.24</td>
<td>C2</td>
<td></td>
</tr>
<tr>
<td>30 -39.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A3</td>
<td>B3</td>
<td>0.57</td>
<td>C3</td>
<td></td>
</tr>
<tr>
<td>40 – 49.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A4</td>
<td>B4</td>
<td>1.05</td>
<td>C4</td>
<td></td>
</tr>
<tr>
<td>50 - 59.9</td>
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<td></td>
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<td>A5</td>
<td>B5</td>
<td>1.69</td>
<td>C5</td>
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</tr>
<tr>
<td>60 - 69.9</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A6</td>
<td>B6</td>
<td>2.49</td>
<td>C6</td>
<td></td>
</tr>
<tr>
<td>&gt;70</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A7</td>
<td>B7</td>
<td>3.46</td>
<td>C7</td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>B/C</td>
</tr>
</tbody>
</table>

### Area factor (AF) of the compartment: Area/(N x 0.1) = ____/(____ x 0.1) = _______.

Total number of trees for each (7) diameter classes (B1, B2,...and B7): B1 = A1 x Area factor, B2 = A2 x Area factor etc.

Total number of NTFP: No. of NTFP (bamboo or others) x Area factor.

**Number of stems per hectare** = B/Area = ____/____ = ________ stems/ha.

**Bole volume per class** = C1 = B1 x 0.062, C2 = B2 x 0.24 etc. **Total bole volume of compartment** = C = C1 + C2 ..+ C7

**Bole volume per hectare** = C/area = ____/____ = ________ m³/ha.

### Average density of regeneration in the compartment: _____

0 = empty, 1 = sparse, 2 = moderate, 3 = dense (average of density classes of the plots, rounded to the nearest whole number)
Handout no. 2.3.3.1.3. Sample forest inventory calculation form for the high forest compartment

Village ________________ Compartment no. ____ Forest type or description _________________ Area _______ ha Date ________ Calculated by ___________

Number of sample plots (N) ______

<table>
<thead>
<tr>
<th>Dbh class cm</th>
<th>Lan/ Puay</th>
<th>Deng</th>
<th>Si</th>
<th>La en</th>
<th>Bak</th>
<th>Other tree spec.</th>
<th>Resin tapp. tree</th>
<th>Dead tree</th>
<th>No. of sample trees</th>
<th>Total no. of trees</th>
<th>Vol per tree</th>
<th>Vol per class</th>
<th>NTFP</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 - 19,9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A1</td>
<td>B1</td>
<td>0.062</td>
<td>C1</td>
<td>Bamboo</td>
</tr>
<tr>
<td>20 - 29,9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A2</td>
<td>B2</td>
<td>0.24</td>
<td>C2</td>
<td></td>
</tr>
<tr>
<td>30 - 39,9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A3</td>
<td>B3</td>
<td>0.57</td>
<td>C3</td>
<td>Rattan</td>
</tr>
<tr>
<td>40 - 49,9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A4</td>
<td>B4</td>
<td>1.05</td>
<td>C4</td>
<td></td>
</tr>
<tr>
<td>50 - 59,9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>A5</td>
<td>B5</td>
<td>1.69</td>
<td>C5</td>
<td></td>
</tr>
<tr>
<td>60 - 69,9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A6</td>
<td>B6</td>
<td>2.49</td>
<td>C6</td>
<td></td>
</tr>
<tr>
<td>70 - 79,9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A7</td>
<td>B7</td>
<td>3.46</td>
<td>C7</td>
<td>Others</td>
</tr>
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<td>A8</td>
<td>B8</td>
<td>4.6</td>
<td>C8</td>
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</tr>
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<td>90 - 99,9</td>
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<td></td>
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<td></td>
<td></td>
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<td>B9</td>
<td>5.9</td>
<td>C9</td>
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</tr>
<tr>
<td>100 - 109,9</td>
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<td></td>
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<td>B10</td>
<td>7.4</td>
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<td>&gt;110</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>A11</td>
<td>B11</td>
<td>9.3</td>
<td>C11</td>
<td></td>
</tr>
</tbody>
</table>

**Area factor (AF) of the compartment:** Area/(N x 0.1) = _____/____ x 0.1 = ______.

Total number of trees for each (11) diameter classes (B1, B2,...and B11): B1 = A1 x Area factor, B2 = A2 x Area factor etc.

Total number of NTFP: No. of NTFP (bamboo, rattan, or others) x Area factor.

**Number of stems per hectare** = B/Area = _____/_____ = ______ stems/ha.

**Bole volume per class** = C1 = B1 x 0.062, C2 = B2 x 0.24 etc. **Total bole volume of compartment** = C = C1 + C2 + .. + C11, **Bole volume per hectare** = C/Area _____/______ = ______ m³/ha.

**Average density of regeneration in the compartment _____**, 0= empty, 1= sparse, 2= moderate, 3= dense (average of density classes of the plots, rounded to the nearest full number)
Handout no. 2.3.3.1.4. Sample of a filled-in inventory calculation form

<table>
<thead>
<tr>
<th>หน่วย</th>
<th>จำนวน</th>
<th>ราคา</th>
<th>คงเหลือ</th>
<th>ราคารวม</th>
<th>รวมตัวเลข</th>
<th>รายการ</th>
<th>รวมตัวเลข</th>
<th>รวมตัวเลข</th>
<th>รวมตัวเลข</th>
<th>รวมตัวเลข</th>
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</thead>
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<td>10</td>
<td>4</td>
<td>7</td>
<td>1</td>
<td>12.2</td>
<td>24.4</td>
<td>A1</td>
<td>5.5</td>
<td>3.928,10</td>
<td>0.062</td>
<td>C1</td>
</tr>
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<td>19.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>B1</td>
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<td></td>
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<tr>
<td>20</td>
<td>7</td>
<td>11</td>
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<td>14.9</td>
<td>14.9</td>
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<td>B2</td>
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<td>7</td>
<td>7</td>
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<td>19</td>
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<td>2</td>
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<td>8</td>
<td>A4</td>
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<td>642,78</td>
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<td>C4</td>
</tr>
<tr>
<td>49.9</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>B4</td>
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<td></td>
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<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td>112,84</td>
<td>1.69</td>
<td>C5</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>B5</td>
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<td></td>
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</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td>142,84</td>
<td>2.49</td>
<td>C6</td>
</tr>
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<td>69.9</td>
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<td></td>
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<td></td>
<td>B6</td>
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</tr>
<tr>
<td>&gt;70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A7</td>
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<td></td>
<td>B7</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

นิยามของสัมประสิทธิ์ (AF) = เบลส์ / (N x 0.1) = 36 / (11 x 0.1) = 33.64

( N = จำนวนظاهرة )

ซับแบบสอบถาม 1. ผู้บริการตอบ (7) (B1, B2, ... และ B7). B1 = A1 x ผู้ตอบเบลส์, B2 = A2 x ผู้ตอบเบลส์ และอื่นๆ.

ซับแบบสอบถาม 2. ผู้บริการตอบ (11) ผู้ตอบเบลส์.

ซับแบบสอบถาม 3. ผู้ปล่อยข้อมูล:

ขั้นตอนที่ 1: B1 = B2 + B3 + B4 + B5 + B6 + B7 = 335,72

นิยามของสัมประสิทธิ์ (AF) = C1 x 0.062, C2 = B2 x 0.24 ชั่วโมง, นิยามของสัมประสิทธิ์ (AF) = C = C1 + C2 + C3 + ... C7.

นิยามของสัมประสิทธิ์ (AF) = C = 330,89 x 86 = 28,358 วัน.

ผลการสอบถามสถิติของสัมประสิทธิ์ (AF) ผู้ปล่อยข้อมูลอยู่ในกลุ่มนี้ที่มี 1.

0 เป็นน้อย, 1 ชั่วโมง, 2 นาที, 3 เรือน (ผลลัพธ์จะแสดงตามแบบสอบถามที่มีอยู่, โปรดระบุ)
Lesson 2.3.3.2
Writing the forest inventory report

Objective
At the end of the lesson, the participants should be able to present the results of a forest inventory in a simple report

Methods
Discussion and supervised group work

Materials
Large brown sheets of paper, marker, and masking tape
Writing tools and materials
Calculated forest inventory results from Lesson 2.3.3.1

Time
One hour

Process
Discuss with the participants how to write a forest inventory report. Ask each group to write a report using the calculated forest inventory results from Lesson 2.3.3.1.

Learning notes

Writing the forest inventory report
After the results have been computed, a forest inventory report is prepared annexing one set of the inventory calculation forms and the inventory map. In actual practice, the VFA Secretary keeps a copy of the inventory report, while another copy is provided to the village planning team. The VFA Secretary should also keep the original field sheets.

The forest inventory report should be as simple as possible (see attached model). It should contain the following:
- Summary sheet providing the general information
- Summary of the forest inventory results
- Annexes, i.e. the forest inventory map and inventory calculation forms

The general information should include the following:
- Name of VFA, village, district, and province
- Compartments inventoried, forest type, area, and number of plots
- Dates of forest inventory
- Names of the team members
The summary of the forest inventory results should include for each compartment and for
all compartments the following:

- Average volume per hectare by dbh grouping (10-30, 40-50, >50 dbh classes)
- Average number of trees per hectare by dbh grouping (10-30, 40-50, >50 dbh classes)
- Average quality of regeneration
- Average quantity of NTFPs
Handout no. 2.3.3.2.1. Model of a forest inventory report

Forest inventory report

General information

Name of VFA:____________________________________________________
Name of village:________________________________________________
Name of district:_______________________________________________
Name of province:______________________________________________
Dates of inventory:______________________________________________
Team members:__________________________________________________

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Compartments inventoried:

<table>
<thead>
<tr>
<th>Compartment no.</th>
<th>Forest type</th>
<th>Area (hectares)</th>
<th>No. of plots</th>
</tr>
</thead>
<tbody>
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<td></td>
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</tr>
</tbody>
</table>
### Handout no. 2.3.3.2.2. Summary of the forest inventory results

#### Volume and stems per hectare of the compartments

<table>
<thead>
<tr>
<th>Comp. No.</th>
<th>Area (ha)</th>
<th>Stem volume (m³/ha)</th>
<th>Number of stems per hectare</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>10-30</td>
<td>31-50</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>
### Handout no. 2.3.3.2.3. Regeneration and non-timber forest products by compartment

<table>
<thead>
<tr>
<th>Comp. No.</th>
<th>Regeneration Class</th>
<th>Resin trees (No./ha)</th>
<th>Bamboo (clumps/ha)</th>
<th>Rattan (stems/ha)</th>
<th>Others (specify)</th>
</tr>
</thead>
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</table>

### Sample forest inventory report (annexes)

1. Forest inventory map
2. Calculation sheets for each compartment

*Back the Table of Contents*
Course 2.4  
Village forest management planning

Introduction

The course objectives are:

1. To teach the participants the basic concepts, principles, and operations involved in the management of village forests

2. To provide the participants with skills in specifying the different components of the village forest management system

3. To develop the capability of the participants to impart the above concepts and skills to villagers

4. To organize a subsequent village-level training programme on village forest management systems

Contents

This course consists of two modules:

Module 2.4.1 Specification of the village forest management system. In this module, the participants learn the concept of a forest management system, and how to fully specify all the components of a system for managing the village forest.

Module 2.4.2 Writing the village forest management plan. The participants learn how to put the village forest management plan in graphical and written forms based on the detailed specification of the components of the village forest management system. Then they learn to organize planning work with village teams.
Module 2.4.1
Specification of the village forest management system

Introduction

This module is aimed at strengthening the technical capability of the forestry staff to train and assist village teams in fully specifying the components of a forest management system that is suitable for their village forest.

Contents

The module consists of fourteen lessons:

Lesson 2.4.1.1 Overview of the forest management system. In this lesson, the participants are introduced to the concept of a forest management system and its components.

Lesson 2.4.1.2 Specifying a forest management system. The participants learn a clear and organized way for fully specifying the components of a forest management system.

Lesson 2.4.1.3 Forest management objectives, managers, and stakeholders. The participants learn a way of defining the forest management objectives. They understand who the forest managers are and what constitutes their rights and obligations, as well as who the other stakeholders are.

Lesson 2.4.1.4 Forest management cycles. The participants learn how to specify the length of forest management cycles for various products and services.

Lesson 2.4.1.5 Forest management compartments. The participants learn how to divide the forest into management compartments based on the length of the forest management cycles and a number of other considerations.

Lesson 2.4.1.6 Capacity of the forest to produce sustainable levels of products and services. The participants learn how to assess the forest resources in terms of their capacity to produce sustainable levels of products and services.

Lesson 2.4.1.7 Production rules for timber. The participants learn different rules that ensure that timber production is sustainable.

Lesson 2.4.1.8 Production rules for non-timber forest products. As well the participants learn different production rules for non-timber forest products.

Lesson 2.4.1.9 Integrating other products and services. The participants learn how to integrate the production of other products and services with timber production.

Lesson 2.4.1.10 Forest regeneration and improvement. The participants learn how the forest can be regenerated and its condition improved after the harvest.

Lesson 2.4.1.11 Forest protection. The participants learn the different agents of forest destruction and what measures to take to control these.
Lesson 2.4.1.12 Subsidiary activities that form part of the forest management system. The participants learn about other forest management activities, their purposes, methods, and expected results.

Lesson 2.4.1.13 Work force requirements. The participants learn how to estimate the number of each kind of work force needed to do forest management work.

Lesson 2.4.1.14 Financial requirements. The participants learn how to estimate the financial requirements of the forest management activities.
Lesson 2.4.1.1
Overview of a forest management system

Objectives

At the end of the lesson, the participants should be able to:
1. Appreciate the need for a system for managing village forests;
2. Understand what a forest management system is and what its components are.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape
Poster showing the village forestry activities

Time

Thirty minutes

Process

1. Discuss with the participants the relationship between village forest management planning and the other village forestry activities. Make use of the poster showing the village forestry activities.

2. Steer the discussion to the need for a system for managing village forests. Then introduce the concept of forest management system. Focus on the key words “system” and “forest management” followed by “system objectives” and “system resources”, steering the discussion towards the concept of a “village forest management system”.

3. Discuss the different elements or components of a forest management system based on management resources, e.g. people, land, forests, products, services, time, techniques, etc.

Learning notes

What a ”system” is

A system is a collection of parts or elements working together towards a certain objective. The keywords here are ”elements” and ”objective.”
Definition of a forest management system

As a system, a "forest management system" has elements working together towards meeting a certain objectives. In general, the forest management objective can be expressed as the sustainable delivery of forest-based products and services, e.g. timber, for the benefit of management and other stakeholders. Some of the elements of the system constitute the resources of management, while others constitute the constraints or restrictions of management. Management resources include people, both the managers and the workforce, materials, methods, money, and time. The management resources are used in implementing management decisions. On the other hand, constraints impose limits on what management can do. Constraints may be natural, such as those arising from the limitations in the number and quality of the forest resources, and man-made, such as rules that must be followed.
Lesson 2.4.1.2

Specifying a forest management system

Objectives

At the end of the lesson, the participants should be able to appreciate the need to specify fully the elements of a forest management system, and to learn a clear and organized way of specifying these elements.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

Forty-five minutes

Process

1. Discuss with the participants the different elements of a forest management system. Why is there a need to specify in full each element? Does the system remain the same if one specification is substantially changed?

2. Present a way by which the different elements may be clearly specified. What are the main questions to be addressed when specifying these elements?

Learning notes

Elements of a forest management system

A forest management system prescribes how the forest should be managed to meet the forest management objectives. The prescriptions can be organized in terms of the forest management objectives and the resources to be used to attain the objectives, e.g.:

- **Objectives.** What products or services is the forest aimed at producing?

- **Managers and stakeholders.** Who manages the forest and what are their rights? Who benefits from forest management and in what ways?

- **Time.** When are the products or services derived? At what cycle does the management proceed for each product or service?

- **Land.** Where are the products or services derived?

- **Methods.** How much of the products or services can be derived on a sustainable basis? How are the forest-based products or services actually derived? How is the forest regenerated, developed, and protected so that the delivery of the forest-based products or services is sustained?
• **Work force.** How many and what kind of people are needed to do forest management work?

• **Money.** How much money is needed to manage the forest in a given time period?

By answering the above questions pertaining to the objectives, resources, and constraints of a forest management system, the particular system is specified in full, i.e. the set of answers fully describe the system. A different set of answers would describe a different system. For example, the system using a 5-year timber cutting cycle would be different from one using a 10-year cutting cycle. However, these two systems would be more similar than between a system using a 5-year cutting cycle and one using a 50-year cutting cycle in terms of the other elements of the system.

The term “village forest management system” as used in village forestry pilot sites may be considered a generic term, i.e. it connotes a group of similar management systems which is applied to village forests. In practice, the system in one village may differ from that in an adjacent village, even if only slightly.
Lesson 2.4.1.3
Forest management objectives, managers, and stakeholders

Objectives

At the end of the lesson, the participants should be able to:
1. Learn how to define the forest management objectives;
2. Understand who the forest managers are and what constitutes their rights and obligations, as well as who the other stakeholders are.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape

Time

Forty-five minutes

Process

1. Discuss with the participants the customary rights of villagers on the use of the forest for the delivery of different products and services. Use the following guide questions:
   - What are customary rights and how are they acquired by the villagers?
   - What products and services can be derived under the customary rights of villagers to use the forest? List these products and services as, for example:
     - Timber
     - Firewood
     - Fodder
     - Resin and other extracts
     - Rattan and other vines
     - Mushrooms, bamboo shoots, and other edible foods
     - Wildlife
     - Water and protection of water sources
     - Places of worship (sacred forests) and recreation
     - Others
   - Are there any government-imposed restrictions on the use of these products (e.g. on trade)?

2. Proceed to specifying the forest management objectives based on the delivery of these forest-based products and services.

3. Continue the discussion by going into acquired rights and corresponding obligations (e.g. management rights). Give an example of how these rights may be obtained (e.g. management contract). What do these rights allow the villagers to do that were not allowed under customary rights (e.g. timber sales)? What are the villagers obliged to
do in consideration of these acquired management rights (e.g. protect the forest, manage the forest on a sustainable basis)?

4. End the discussion on the topic of other stakeholders in village forest management. Who are they and in what ways do they benefit from village forest management?

Learning notes

From Lesson 2.4.1.2, the participants learn that the forest management objective can be expressed in terms of the delivery of forest-based products and services. For example:

- To generate income from commercial production of timber at the maximum level that the commercial forests can sustain
- To produce in the non-commercial forests all the timber required for household and community needs of the village
- To sustain the current collection levels of non-timber forest products from the wild
- To maintain a good soil cover for preventing soil erosion
- To prevent the siltation and pollution of streams
- To restrict land-use conversions to those provided for in the village land-use plan
- To prevent unwanted intrusions into the sacred forests and promote biodiversity conservation forests of the village

Stakeholders and the means by which they benefit from village forest management include:

- The forest managers, i.e. villagers themselves, by their consumption or use of the various forest-based products and services
- The forest industries by converting forest products to usable forms
- The consumers, including local communities, downstream communities, buyers, and visitors by satisfying their needs for the various forest-based products and services
- The national community, through the government, by collecting its share of the benefits in the form of taxes and fees for redistribution to the national economy
- The global community by knowing that there remains an opportunity to enjoy the benefits of the diverse biological resources in the village forests
Lesson 2.4.1.4
Forest management cycles

Objectives

At the end of the lesson, the participants should be able to:
1. Understand the concept of a management cycle for a given product or service
2. Apply a set of criteria to select an appropriate management cycle for each product or service.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape

Time

One hour

Process

1. Ask the participants to list and classify the different kinds of products from the forest. For each class of product, how often can the products be harvested from the resource base? Relate this frequency to the concept of a harvesting cycle (e.g. annual for some products, longer for other products).

2. Is the resource base destroyed during harvesting? How is it restored? Explain how the harvesting cycle may be re-defined as a management cycle, i.e. that harvesting is merely the last management activity in the management cycle.

3. Discuss the options for management cycles and the criteria for selecting the length of the cycle. Take timber management as an example. What are the implications of a short cycle (e.g. 5 years) in comparison to a long cycle (e.g. 50 years) on the following:
   a. The size of the annual area to be managed and harvested, i.e. area of the FMU divided by the length of the management cycle (whether small or large). For the comparison, use the attached handout.
   b. The work force needed (whether small or large).
   c. The roads, machinery, and capital resources needed (whether less or more). For the comparison, use the attached handout.
   d. The volume to be harvested, i.e. total volume allowed to be cut divided by the area of the compartment (whether small or large), as well as the tendency to overcut given that capital investments must be recovered. For the comparison, use the attached handout.
e. The opening of the canopy and level of forest destruction caused by light or heavy cuts (whether small or large). For the comparison, use the attached handout.

f. The method of regenerating the forest (whether by natural means, e.g. by seeding, or by artificial means such as by tree planting).

g. Further assess the implications of a short and a long cycle on the area that a village can operate over the years in the case of village forestry, where the forest management unit is in one village and the cycle is short (e.g. Dong Sithouane with 5-year cycles), and joint forest management, where the FMU is a state-production forest covering several village territories and the cycle is long (e.g. Dong Kapho with 50-year cycles). Can the village do all management activities year after year? For the comparison, use the attached handout.
Handout no. 2.4.1.4.1. Annual area and roads for short and long management cycles

<table>
<thead>
<tr>
<th>Cutting cycle</th>
<th>System 1</th>
<th>System 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short, e.g. 5 years</td>
<td>Larger area</td>
<td>Long, e.g. 50 years</td>
</tr>
<tr>
<td>Annual coupe</td>
<td></td>
<td>Smaller area</td>
</tr>
</tbody>
</table>

Length of access roads to be built each year

Year 1
Year 2
Year 3
Year 4
Year 5

Year 49
Year 50
Etc.

Longer
Shorter
Handout no. 2.4.1.4.2. Volume cut and opening of the canopy for short and long management cycles

Suppose for both systems that:

- **Area** = 50,000 ha
- **Sustainable cut** = 1 m³/ha annually
- **Annual allowable cut** = 50,000 ha * 1 m³/ha = 50,000 m³ annually

**Therefore:**

<table>
<thead>
<tr>
<th></th>
<th>System 1</th>
<th>System 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area of annual coupe</strong></td>
<td>50,000/5 = 10,000 ha</td>
<td>50,000/50 = 1,000 ha</td>
</tr>
<tr>
<td><strong>Volume cut per ha</strong></td>
<td>50,000 m³ /10,000 ha = 5 m³/ha</td>
<td>50,000/1,000 = 50 m³/ha</td>
</tr>
<tr>
<td><strong>Trees cut per ha</strong></td>
<td>About 1 tree/ha</td>
<td>About 8-12 trees/ha</td>
</tr>
<tr>
<td><strong>Suitability:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dense stands, e.g. 300 m³/ha</td>
<td>Suitable</td>
<td>Suitable</td>
</tr>
<tr>
<td>Light stands, e.g. 120 m³/ha</td>
<td>Suitable</td>
<td>Not suitable since the Forest will be heavily degraded</td>
</tr>
</tbody>
</table>

**Canopy opening**

- Small opening
- Large opening

---

**Legend:**

- Tree cut
- Tree killed or damaged
### Handout no. 2.4.1.4.3. Sustainability of village forest management activities in two cases

<table>
<thead>
<tr>
<th></th>
<th>System 1</th>
<th>System 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cutting intensity</strong></td>
<td>Light cut since the annual cut is distributed over a large area of annual coupe</td>
<td>Heavy cut since the annual cut is concentrated on a small area of annual coupe</td>
</tr>
<tr>
<td><strong>Size of opening</strong></td>
<td>Small opening</td>
<td>Large opening</td>
</tr>
<tr>
<td><strong>Scenario without treatment</strong></td>
<td>Opening regenerated naturally Stand structure maintained Species composition maintained</td>
<td>Bamboos and weeds invade opening Stand structure changed drastically Species composition changed drastically</td>
</tr>
<tr>
<td><strong>Treatment needed</strong></td>
<td>Likely that none is needed or light enrichment planting</td>
<td>Heavy enrichment planting</td>
</tr>
<tr>
<td><strong>Ease of land-use conversion</strong></td>
<td>Likely to remain a forest May need to be converted</td>
<td>Easy to convert to farms to tree plantation</td>
</tr>
<tr>
<td><strong>Overall sustainability</strong></td>
<td>Likely to be sustainable since the light cut imitates the natural death and regeneration of trees in a forest</td>
<td>Likely to be unsustainable especially in light forest stands which cannot sustain heavy cuts</td>
</tr>
<tr>
<td><strong>Limitation to application</strong></td>
<td>Terrain which can be accessed in the dry season without building roads, since the light cut cannot sustain expensive road building or logging techniques</td>
<td>Can be done in most terrain since the heavy cut can sustain the high cost of road building and logging</td>
</tr>
</tbody>
</table>
Lesson 2.4.1.5
Forest management compartments

Objectives

At the end of the lesson, the participants should be able to:
1. List the criteria for dividing the VFMU into forest management compartments;
2. Apply the criteria to divide the VFMU into forest management compartments.

Methods

Discussion and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Forest map (or land-use plan showing the VFMU)

Time

One hour

Process

1. Ask the participants how they would divide the VFMU (dry dipterocarp forests and high forests separately) into compartments. What are their reasons? Some criteria to consider are compactness of the compartment, direction of access, about equal size, and about equal timber volume to be harvested.

2. Divide the participants into groups. Ask each group to separate the timber production area from the rest of the VFMU (i.e. conservation forest compartments, protection forest compartments, regenerating forest compartments, degraded forest compartments, etc.). Ask each group to use the criteria derived above to actually divide the timber production area into annual harvesting compartments.

3. Ask one group to present its results and for the other groups to comment and compare those with their own outputs.
Lesson 2.4.1.6
Capacity of the forest to produce sustainable levels of products and services

Objectives

At the end of the lesson, the participants should be able to:
1. Assess the production potential of the VFMU;
2. Understand the components of forest drain, production, and production losses;
3. Estimate the annual sustainable production levels for various products, while considering the limits imposed by the need to sustain the delivery of forest-based services.

Methods

Discussion, lecture, and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Forest inventory results (both high forests and dry dipterocarp forests)
Forest growth data, e.g. from Dong Sithouane (tabulated at the end of the lesson)
Map of the VFMU
Calculator

Time

Three hours

Process

1. Discuss with the participants the forest inventory results for each of the production forest compartments of the VFMU. Explain that the forest inventory shows how much resources are currently in the forest, but not how much resources will be grown by the forest.

2. Discuss the forest growth data and how it is obtained. Explain that a well-stocked forest grows more wood than a poorly stocked forest.

3. Ask the participants to estimate the annual forest growth in a few sample compartments of the VFMU by multiplying the area by the annual rate of growth based on the stand density of the compartment.

4. Shift the discussion from forest growth to forest drain. What are the causes of forest drain?

5. Discuss the process of estimating the annual sustainable production levels for a product, say timber. For this product, how much should be the forest drain in comparison to the forest growth for production to be sustainable? Demonstrate how the annual allowable timber harvest is estimated.

6. Ask each group to estimate the annual allowable timber harvest for each forest type in the VFMU, i.e. (a) total cubic metres, (b) cubic metres per hectare of the timber
harvesting compartment, and (c) number of trees of given diameter per hectare of the timber harvesting compartment. Use the following data:

a. Data for the high forest:
   Annual timber stand growth = 4.4 cubic metres per hectare
   Annual mortality from various causes = 0.9 cubic metres per hectare
   Allowance for increasing the timber stand density = 2 cubic metres per hectare

b. Data for the dry dipterocarp forest:
   Annual timber stand growth = 1.1 cubic metres per hectare
   Annual mortality from various causes = 0.5 cubic metres per hectare
   Allowance for increasing the timber stand density = 0.3 cubic metres per hectare

c. Allowance for timber destroyed during harvest = 20% of managed harvest

d. Timber harvesting cycle = 5 years

e. Area of the production forest (high forest and dry dipterocarp forest), referring to the map of the VFMU

7. Discuss other products. What information is available in the case of various non-timber forest products? Is the information adequate to make similar production estimates? What can be done about this?

Learning notes

Forest growth

In tropical countries, forest growth and mortality are generally estimated from data from permanent sample plots which have been established and then re-measured. Re-measurement is done after, say, five years when the annual diameter increment of the trees in the plot is already substantial in comparison to measurement error. In even-aged forests where trees have annual rings, e.g. pines and some hardwoods, it is not necessary to have permanent sample plots to estimate forest growth. The age of the forest stand can be found by boring the trunk of sample trees with an increment borer and counting the annual rings. By measuring plots of different ages, a relationship between volume and age can be found.

The process of establishing permanent sample plots is not taught to villagers, nor even to local forestry staff who are not involved in research on forest growth. It is enough for them to understand how forest growth and are estimated.

Forest growth data is scarce in the Lao PDR. NAWACOP estimated the forest growth of some pure pine stands from measurements in temporary plots whose age was estimated by counting annual rings. FOMACOP established a total of almost 400 permanent sample plots in the high forests and dry dipterocarp forests in Dong Sithouane in Savannakhet and in Dong Phousoi in Khammouane. The oldest of these plots were established in 1995 and the latest re-measurement was done in 2000. FOMACOP forest growth and mortality information were derived from these plots. See the attached tabulation showing the sample data from Dong Sithouane.

The FOMACOP permanent sample plots were mapped to enable the forest inventory team to locate the plots during each re-measurement. The plot centers are marked on the
ground with a painted pole of durable species. Trees above 5 cm in dbh, which are located within the plot, are numbered and the numbers painted on the trunk. There are three plot radii, one radius for each of three different dbh classes. The species and initial dbh of each tree were measured at the time of establishment and then re-measured the following year to obtain tentative forest growth information, which were urgently needed. After the re-measurement done in 2000, a more reliable forest growth and mortality information are now available.

The Forestry Research Section of DOF also established permanent sample plots to study forest regeneration and growth as affected by different timber harvesting intensities. These plots were established in 2000 and forest growth information can be derived from these plots after they are re-measured.

**Components of timber drain**

Growth increases the timber volume of the forest stand, while drain reduces it. The components of timber drain are given below. The components of drain of other products are similar to those of timber drain.

- **Mortality or death of trees from natural causes.** The causes include strong wind, diseases, pests, etc.
- **Death of trees from forest fire.** The fire may be natural or man-made.
- **Illegal cutting.** This includes the timber removed and the trees destroyed during illegal cutting (when the tree falls, when the logs are extracted, when the track is cleared).
- **Managed timber harvests.** This also includes the trees cut during track clearing, destroyed when the harvested tree falls, or destroyed when the logs are extracted. However, the timber harvest is managed as part of a harvesting plan.

**Calculating the annual allowable timber harvest**

For forest management to be sustainable, the total drain must not exceed the growth of the timber stand. In the case of Dong Sithouane, where the timber stand density is still low, there must be a provision for increasing the timber stand density. This means that not all of the timber growth is drained; some of the timber stand growth is retained to increase the timber stand density. Therefore, for a unit area:

Timber stand growth = Timber drain + Allowance for increasing the timber stand density

Timber drain = Timber stand growth - Allowance for increasing the timber stand density

Managed timber harvest = Timber drain - (drain from natural causes, fire, illegal cutting)

Annual allowable timber harvest = Managed timber harvest - timber destroyed during harvest

**Example: Annual basis**

Given:

Timber stand growth = 4.4 cubic metres per hectare (from permanent sample plot data)

Allowance for increasing the timber stand density = 2 cubic metres per hectare

Mortality from natural causes (Note: illegal cutting is assumed to be fully controlled under village forestry) = 0.9 cubic metres per hectare (from permanent sample plot data)
Assume that timber destroyed during timber harvest is 20% of the volume harvested.
Area of the production forest = 1000 hectares (for example)

Then:
Timber drain = 4.4 – 2 = 2.4 cubic metres per hectare
Managed timber harvest = 2.4 – 0.9 = 1.5 cubic metres per hectare
Timber destroyed during harvest = 20% of managed timber harvest = 1.5 x 0.2
= 0.3 cubic metres per hectare
Annual allowable timber harvest = 1.5 – 0.3 = 1.2 cubic metres per hectare
Annual allowable timber harvest = 1000 x 1.2 = 1,200 cubic meters

For a timber harvesting cycle of 5 years, 1000 / 5 or 200 hectares will be harvested every year. Thus the compartment is harvested at the rate of 1200 / 200 = 6 cubic metres per hectare. This is about the same volume as one large tree with a DBH of about 70 centimetres.

**Forest growth and mortality in Dong Sithouane**

(Tentative estimates, for more recent information ask FOMACOP)

<table>
<thead>
<tr>
<th>Forest type</th>
<th>Mixed deciduous and dry evergreen forests</th>
<th>Dry dipterocarp forests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stand density</td>
<td>&lt;=75</td>
<td>75-150</td>
</tr>
<tr>
<td>Growth</td>
<td>2.86</td>
<td>4.25</td>
</tr>
<tr>
<td>Mortality</td>
<td>0.00</td>
<td>1.29</td>
</tr>
</tbody>
</table>
Lesson 2.4.1.7
Production rules for timber

Objectives

At the end of the lesson, the participants should be able to
1. List the criteria for selecting trees to be harvested;
2. Understand the impact of selecting trees to be harvested on production, regeneration, species mix, overall quality of the stand, etc.;
3. Develop simple rules for selecting trees to be harvested and incorporate the rules as part of the forest management system.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape
Portion of a tree map (see attached handout)

Time

One hour

Process

1. Ask the participants to list the criteria that are used in practice in selecting trees to harvest for different purposes, as well as the implications of these on regeneration, species mix, overall stand quality, etc. Proceed with the portion of a tree map as a discussion aid.

Main guide question for the discussion: Which trees should be selected to cut the annual allowable timber harvest? Secondary guide questions:

• Should all trees above a certain diameter be cut? If not, should only the largest trees be cut? Why? Should cutting one large tree be preferred over cutting two smaller ones? (Discuss the implications on production and productivity.)
• Should trees used for collecting resin be cut? Why or why not? If cut, what rules should be followed, e.g. regarding their size or level of resin production? How should the collector of the resin from the trees be compensated for future losses in income?
• Should more than one tree be cut at a given location? Why? (Discuss the implications on the size of the forest opening, destruction of trees which are not to be harvested, and on regeneration.)
• Should the most valuable species be cut first? Why? If the number of trees of a given species is low, should trees of this species be cut? Why? What should be done? (Discuss implication on the species mix.)
• If there are several large trees in a clump or near each other, should more than one tree be cut? Why? (Discuss implication on regeneration by seeding from mother trees.)
• Should trees near a stream be cut? Why? (Discuss implication on stream bank erosion and water quality of the stream.)

2. Discuss with the participants the rules for selecting trees to be harvested. The first set of rules is on how many trees to cut from the timber-harvesting compartment. The second set of rules is on which trees to cut. Develop rules together with the participants. The following serves as a set of examples.

Number of trees to cut from the timber-harvesting compartment:

• The aggregate volume of all trees harvested must not exceed the annual allowable timber harvest for the given forest type.
• Cutting of trees must be restricted to the current timber-harvesting compartment.
• More trees per hectare may be cut from sub-compartments with high timber stand density. Low-density stands should be cut less to allow them to grow dense.

For example, for the high forests:

- Less than 80 cubic metres per hectare – do not cut any trees
- 80-120 cubic per hectare – cut 2 trees for every 3 hectares
- 120-160 cubic per hectare – cut one tree per hectare
- more than 160 cubic metres per hectare – cut 3 trees for every 2 hectares

Another example, for the dry dipterocarp forests:

- Less than 50 cubic metres per hectare – do not cut any trees
- 50-85 cubic per hectare – cut 2 trees for every 3 hectares
- 85-120 cubic per hectare – cut one tree per hectare
- more than 120 cubic metres per hectare – cut 3 trees for every 2 hectares

For the rules on which trees to cut, make use of the criteria discussed in Step 1. Some examples are given below:

• Usually the largest tree at a given location should be cut if it is sound and is marketable.
• If the potential tree is needed as mother tree for natural regeneration (e.g. only one of the species at the given location), do not cut.
• If the potential tree is used for resin collection, check the rules formulated by the VFA on this.
• Cut only one tree at a given location. Spread the cut over the sub-compartment as much as possible. The next tree to be cut should be at least 20 metres away from an already selected tree.
• If the tree count of a species in the sub-compartment is low (e.g. less than 1% by volume), do not cut any tree of this species. It is best to cut a tree from a clump of big trees of the same species. This leaves the other trees to regenerate the opening created.
• Do not select a tree which is within 30 metres of a stream.
Handout no. 2.4.1.7.1. Portion of a tree map
Lesson 2.4.1.8
Production rules for non-timber forest products

Objectives

At the end of the lesson, the participants should be able to develop simple rules on harvesting non-timber forest products and incorporate the rules as part of the forest management system.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape

Time

One hour

Process

1. Review the list of non-timber forest products.

2. Discuss possible rules for each type of non-timber forest products. Start from the important ones and go on to other types within the allowed time of one hour. The villagers can later on develop their own rules for each type of non-timber forest products.

3. Checklist of items and guide questions for developing the rules.
   a. For the given non-timber forest products, how often should harvests be made?
   b. Who are allowed to collect the non-timber forest products? How should the customary harvesting rights of individual villagers be reconciled with the management rights of harvest of an organization?
   c. Is it necessary to divide the production forest into harvesting compartments?
   d. How much should be collected?
   e. How should monitoring of the annual harvest be made?
   f. If actual annual harvests are declining because of excessive harvesting, what adjustments on the annual harvest should be made?
   g. How is the resource base of the given product regenerated?
   h. What resource base of non-timber forest products can be cultivated? Where? Should the village invest on cultivating this resource base? Why or why not?
Lesson 2.4.1.9
Integrating other products and services

Objectives

At the end of the lesson, the participants should be able to develop simple rules on integrating grazing and other services with timber production and incorporate the rules as part of the forest management system.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape

Time

One hour

Process

1. Discuss with the participants the practice of grazing livestock in the forest during both the dry and rainy months. How does grazing affect the volume and quality of timber production? How does it affect the sustainability of timber production? Is the use of fire necessary?

2. Discuss the tradeoff between grazing in the forest and timber production. How can a compromise be developed to accommodate both uses of the forest? What must be done to prevent the destructive effects of fire and other grazing practices on timber production?

3. Ask the participants to provide examples of simple rules to integrate grazing with timber production. Encourage them to develop their own set of rules on this subject when they return to their villages.

4. List the other forest uses not covered in the previous discussions. Prioritize them for discussion purposes.

5. For selected forest uses (e.g. protection of water supply sources, preservation of sacred forests), discuss the interaction with timber production, as well as trade-offs, and possible compromises. Ask the participants to provide examples of village rules on these subjects.
Lesson 2.4.1.10
Forest regeneration and improvement

Objectives

At the end of the lesson, the participants should be able to:
1. Generate options for regenerating a forest after timber harvests;
2. Understand the different timber stand improvement techniques;
3. Understand the experts’ recommendations on what forest regeneration and improvement techniques to incorporate in the forest management system.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape

Time

One hour

Process

1. Explain to the participants that there are already studies done by experts that provide recommendations on how to regenerate and improve the forest after harvest. Explain further that at this point in time the course objective is to enable the participants to understand the recommendations well enough to decide which ones to incorporate in the forest management system. The techniques themselves will be studied in a future course.

2. Discuss with the participants the different techniques of regenerating a forest after the timber harvest. Which techniques are appropriate to the conditions existing in the village? Ask them to explain why, in terms of likelihood of success of regenerating the forest, the quantity of work, and the cost needed to follow the techniques.

3. Discuss with the participants the different timber stand improvement techniques. Which techniques seem to be appropriate to the conditions existing in the village? Summarize the results of studies already done on these techniques in terms of the likelihood of success of improving forest growth, the quantity of work, and the cost needed to implement the techniques.

Learning notes

Some options for regenerating the forest after harvest:

• **Natural regeneration.** Openings created during the timber harvest are seeded by seed trees that were left uncut. An adequate number of seed trees of the harvested species is needed to ensure that changes in the species mix are insignificant.
• **Assisted natural regeneration or enrichment planting.** This is done by planting seedlings in the openings created. The seedlings must be of the harvested species to ensure that changes in the species mix are insignificant. Studies are needed on the survival and growth requirements of the seedlings. Cost must also be considered. Since it is costly to raise and plant seedlings, the operation should be confined to openings that are likely to be regenerated by seeding, e.g. large openings.

• **Artificial regeneration.** This is done by planting plantation species in large openings created. It is often not a good idea to clear natural forests, even if they are already degraded, and replace them with tree plantations. Biodiversity is lost and it is questionable if the costly tree plantation of usually low-value species, e.g. eucalyptus, is economically superior to the forest that was cleared.

Some timber stand improvement techniques:
• Cutting of vines to free the crop trees from threats and competition
• Cutting of poorly formed trees to reduce competition for the better formed trees
• Liberation cutting to create greater growing space for crop trees
• Thinning to reduce the number of trees per hectare and allow crop trees to grow faster
Lesson 2.4.1.11
Forest protection

Objectives

At the end of the lesson, the participants should be able to
1. Know the different agents of forest destruction;
2. Familiarize themselves with the methods of forest protection;
3. Incorporate forest protection strategies in the forest management system.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape

Time

One hour

Process

1. Explain to the participants that at this point in time the course objective is to enable the participants to understand forest protection techniques well enough to decide which one(s) to incorporate in the forest management system. The techniques themselves will be studied in a future course that deal with their actual use in the forest.

2. Proceed with the discussion by asking the participants to list from their experience the different agents of forest destruction. Discuss with them the impacts of the destruction on the development of the forest. Some agents of forest destruction:
   • Man – by illegal harvest of forest products, especially cutting of trees
   • Man – by unplanned conversion of forests to other land uses (e.g. farms)
   • Man – by causing unplanned forest fires or being careless to let a planned forest fire spread to other areas
   • Insect pests and diseases
   • Fire from natural causes
   • Strong winds

3. Ask the participants to describe what forest protection activities they are actually doing. Does the village have rules on cutting of trees for household use? Rules for converting forests to farms? Is forest fire suppression practiced by villagers?

4. Ask the participants about the usefulness of including the following in the forest management plan:
   • Extension and public information on the impacts of forest destruction
   • Provision of alternative livelihoods to illegal logging
   • Improvement of agricultural productivity to reduce forest conversion to farms
   • Forest fire prevention and control
Lesson 2.4.1.12
Subsidiary activities that form part of the forest management system

Objectives
At the end of the lesson, the participants should be able to learn what subsidiary activities form part of the forest management system and how to specify them.

Methods
Discussion and lecture

Materials
Large brown sheets of paper, marker, and masking tape

Time
One hour

Process
1. Start the discussion by explaining that there are activities that are necessary in order to do the main forest management activities. Ask the participants to mention and discuss some of them.

2. Complete the discussion by filling in and discussing subsidiary activities that were not mentioned.

Learning notes
Subsidiary activities that provide information needed to do the main activities:

1. Pre-harvest inventory. The pre-harvest inventory provides more detailed information about the forest resources in an annual harvesting compartment, e.g. description of all potential harvest and seed trees including their location on the ground. This information is needed to apply the prescriptions for sustainable forest management, e.g. calculation of annual sustainable harvest and selection of trees to be cut.

2. Post-harvest assessment. The post-harvest assessment provides information on how the harvesting operations were performed, e.g. quantity of damage to the forest, size of openings created in the forest canopy, compaction of soils, etc. It also provides information needed to decide on what timber stand improvement techniques to apply, e.g. enrichment planting in large openings, liberation of clumps of regeneration of valuable species, etc.

Subsidiary activities that are preparatory to the main activities include tree marking, vine cutting, and access road building, all of which need to be done before actual logging starts. They are explained more fully in an annual operations plan than in a forest management plan.
Lesson 2.4.1.13
Work force requirements

Objective

At the end of the lesson, the participants should be able to provide a rough estimate of the work force required to do the different forest management activities.

Methods

Discussion, demonstration, and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Calculator, sample forms (see attached handout)

Time

One hour

Process

1. Ask the participants to list the different activities needed to implement the forest management system prescriptions.

2. Discuss with the participants work norms to do the activities based on their experiences.

3. Demonstrate how to estimate the work force needed in each activity.

4. Ask each group to complete the estimation of the work force needed in each and every activity.

Learning notes

See attached handout on work norms for different forest management activities.
### Handout no. 2.4.1.13.1. Sample form for estimating management workforce requirements

<table>
<thead>
<tr>
<th>Activity</th>
<th>Quantity of activity</th>
<th>Person-days per unit of the activity</th>
<th>Person-days for the activity</th>
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</thead>
<tbody>
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</tbody>
</table>
Handout no. 2.4.1.13.2. Sample work norms for different forest management activities

**Note:** Each VFA must develop their own work norms and update them based on actual experience.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Unit</th>
<th>Person-days/unit of the activity per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village boundary demarcation</td>
<td>Lump sum</td>
<td>25</td>
</tr>
<tr>
<td>Village land-use mapping</td>
<td>Lump sum</td>
<td>10 with aerial photographs</td>
</tr>
<tr>
<td>Village land-use planning</td>
<td>Lump sum</td>
<td>25</td>
</tr>
<tr>
<td>Village forest inventory</td>
<td>Plots</td>
<td>10 plots/day for DDF</td>
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<td>5 plots/day for MDF/DEF</td>
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<td></td>
<td></td>
<td>Multiply by team size</td>
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<tr>
<td>Village forest management planning</td>
<td>Lump sum</td>
<td>35</td>
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<tr>
<td>Pre-harvest inventory</td>
<td>Hectares of annual compartments</td>
<td>2</td>
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<tr>
<td>Annual operations planning</td>
<td>Lump sum</td>
<td>25</td>
</tr>
<tr>
<td>Clearing access tracks</td>
<td>100 meters of track</td>
<td>2</td>
</tr>
<tr>
<td>Tree marking</td>
<td>10 trees to be marked for cutting</td>
<td>2</td>
</tr>
<tr>
<td>Supervising logging operations</td>
<td>10 trees to be cut</td>
<td>1</td>
</tr>
<tr>
<td>Second landing operations</td>
<td>Lump sum per second landing</td>
<td>300</td>
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<tr>
<td>Post-harvest inventory</td>
<td>Lump sum</td>
<td>25</td>
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<tr>
<td>Enrichment planting</td>
<td>Hectares of planting sites</td>
<td>5</td>
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<td>Monitoring NTFP collection</td>
<td>Lump sum per nuay</td>
<td>52</td>
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<tr>
<td>Forest fire monitoring</td>
<td>Lump sum per sector</td>
<td>120</td>
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<tr>
<td>Administration of the VFA</td>
<td>Lump sum</td>
<td>Per decision of VFA</td>
</tr>
</tbody>
</table>
Lesson 2.4.1.14
Financial requirements

Objectives

At the end of the lesson, the participants should be able to provide a rough estimate of the money needed to fund the different forest management activities and to devise how it can be obtained.

Methods

Discussion, demonstration, and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Calculator, sample forms (see attached handout)

Time

One hour

Process

1. Review with the participants the work force needed to do the different forest management activities. How will they be compensated? Discuss levels of compensation prevailing in village work. Estimate with the participants possible compensation rates for each of the different activities. Are uniform rates possible?

2. Ask the participants to list (by writing down) the kinds and numbers of tools, materials, and similar requirements to do the different activities. Provide information on prevailing cost per unit of these tools and materials.

3. Demonstrate how to estimate the cost to do an activity (i.e. by multiplying unit rates by the quantity needed in each activity).

4. Ask each group to complete the estimation of the cost needed to do each and every activity.

Learning notes

See attached handout on estimating the financial requirements of forest management activities.
Handout no. 2.4.1.14.1. Sample forms for estimating financial requirements in forest management

<table>
<thead>
<tr>
<th>Activity</th>
<th>Person-days required</th>
<th>Cost of labor</th>
<th>Cost of equipment and tools</th>
<th>Cost of supplies and materials</th>
<th>Total cost</th>
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</table>

Notes:

1. List the equipment and tools needed in each activity separately. Price them and estimate their cost.

2. List the supplies and materials needed in each activity separately. Price them and estimate their cost.
Module 2.4.2
Writing the village forest management plan

Introduction

In this module, the participants learn how to put the village forest management plan in graphical and written forms based on the detailed specification of the components of the village forest management system. Then they learn to organize the work with village teams to formulate the village forest management plan.

Contents

The module consists of four lessons:

Lesson 2.4.2.1 Forming the village forest management planning team. In this lesson the participants learn how to assist the village in selecting the members of the village forest management planning team.

Lesson 2.4.2.2 Preparing maps, graphics, and tables that illustrate the village forest management system. The participants learn what maps, graphics, and tables need to be prepared to write the village forest management plan, and then learn how to prepare them.

Lesson 2.4.2.3 Writing the village forest management plan. Using a form plan as model, the participants learn how to write the village forest management plan.

Lesson 2.4.2.4 Securing the approval of the village forest management plan. The participants learn the process of approving the village forest management plan at the village, district, and provincial levels.
Lesson 2.4.2.1
Forming the village forest management planning teams

Objective

At the end of the lesson, the participants should be able to assist the villages in forming their teams which will be responsible in formulating and writing the village forest management plan.

Methods

Discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

Thirty minutes

Process

Discuss with the participants the process of forming the village forest management planning team. Use the following guide questions.

• Who will be responsible for preparing the village forest management plan? A person? A team?

• What criteria will be used to select the members of the planning team? How will the members of the team be selected?

• What will be the responsibilities of the planning team?

• How will the activities of the planning team be conducted? How will the rest of the village be consulted in resolving issues?

• End the discussion by asking some participants to summarize the process of organizing the planning team, as well as the planning process itself.
Lesson 2.4.2.2
Preparing maps, graphics, and tables that illustrate the village forest management system

Objectives

At the end of the lesson, the participants should be able to prepare:
1. A map that shows the annual coupes or harvesting compartments, particularly for harvesting timber, and their supporting maps;
2. Organizational chart of the VFA;
3. Tables that show the results of sustainable annual yield calculations and their supporting tables.

Methods

Discussion, demonstration, and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Map-making and writing tools, calculator
Location map of the village and the map depicting the village land-use plan and the boundaries of the VFMU

Time

Eight hours

Process

1. Go over the list of maps, charts, and tables that will be the basis for writing the village forest management plan. These items will be presented as annexes of the planning document. Discuss with them what each item should contain and how it is produced.

2. Ask the participants to work as groups and make one set of maps, charts, and tables. Data inputs are as provided in the lessons of Module 2.4.1.

Learning notes

Preparing maps and charts

The following maps are prepared as annexes of the village forest management plan:

1. Location map of the village. The location map should show how the village is reached from known places (e.g. district and provincial centers) through the main highway. It should fit into an A4-size paper for convenience to the readers.

2. Map depicting the village land-use plan. This is the same map that was taken up in Lesson 2.1.3.4. It shows which compartments have been allocated for the VFMU and which have been reserved for other land uses (e.g. conversion to farms).
3. **Map depicting the village forest management plan.** This map is drawn at the same scale from the village land-use plan, after which more features are added, such as:
   a. Which compartments of the VFMU can be harvested for village use and in what year;
   b. Which compartments of the VFMU can be harvested for commercial purposes and in what year;
   c. Which compartments of the VFMU are not harvested but allocated for further development of the timber stand, protection, or conservation.

4. **Organizational chart of the VFA.** This chart depicts how the VFA is organized (see Lesson 1.5.4.2).

**Preparing tables**

The following tables are prepared as annexes of the village forest management plan:

1. **Present and planned land uses in the village.** This table is copied from the village land-use plan (see Lesson 2.1.3.4).

2. **Inventory of MDF/DEF.** This table is a summary of the forest inventory done in MDF/DEF compartments. It provides information on the average volume and number of trees per hectare in three dbh groupings (below 30 cm, 30-40 cm, 50 cm and above) in each compartment.

3. **Inventory of DDF.** This table is a summary of the forest inventory done in DDF compartments. It also provides information on the average volume and number of trees per hectare in three dbh groupings (below 30 cm, 30-40 cm, 50 cm and above) in each compartment.

4. **Forest growth and mortality.** This table shows the estimated forest growth and mortality of the compartments at given stand densities.

5. **Net yield of living and dying trees.** This table shows the estimated net yield of living and dying trees per hectare based on the calculations given in Lesson 2.4.1.6.

6. **Maximum annual allowable harvests in MDF/DEF.** This table shows how much can be harvested at the maximum in MDF/DEF compartments during each year in the cutting cycle.

7. **Maximum annual allowable harvests in DDF.** This table shows how much can be harvested at the maximum in DDF compartments during each year in the cutting cycle.

8. **Timber harvesting schedule.** This table shows how much of major timber harvesting activities is done each year in the cutting cycle (e.g. area to be harvested, length of access tracks to be improved or built).

9. **Regeneration and timber stand improvement schedule.** This table shows how much of major timber stand improvement related activities is done each year in the cutting cycle (e.g. pre-harvesting survey, vine cutting, post-harvest assessment, liberation cutting).
10. **Human resources and financing needed to implement the plan.** Estimates of annual person-years of employment, total cost of plan implementation, and how the cost is to be financed are provided in this table.

11. **Projected timber sales, royalties, other costs, and net benefits.** This table shows in monetary terms the annual timber sales, royalty payments, other costs to be incurred, and benefits to be obtained.

12. **Projection of stand volume.** This table projects the stand volume in each forest compartment at 5-year intervals for the next 30 years.
Lesson 2.4.2.3
Writing the village forest management plan

Objective

At the end of the lesson, the participants should be able to train and assist the village teams in writing their village forest management plan.

Methods

Discussion, demonstration, and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Writing tools and materials
Model village forest management plan (see attached handout)

Time

Six hours

Process

1. Go over all sections of the model village forest management plan with the participants.

2. Ask each group to prepare a village forest management plan following the model and using the materials produced in Lesson 2.4.2.2.

Learning notes

Writing the village forest management plan

The forest management plan should have a 10-year planning horizon. It should include at the minimum the following sections:
- Introduction
- Village forest management unit and its forest resources
- Forest management plan components
- Plan implementation
- Benefits and impacts

The introduction section should contain:
- Background. This tells very briefly about the village – its location, population, and when it joined the village forestry programme – and the VFA.
- Plan objectives. This presents the objectives of the village forest management plan.
- Methodologies. This briefly tells about how the plan was prepared.

The village forest management unit and its forest resources section should contain:
- Village land use plan. This presents the map and tabulation of the present and planned land uses in the village.
• **Village forest management unit.** This presents the map of the village forest management unit.

• **Forest resources.** This gives an assessment of the forest resources based on the inventories of forest resources, and an assessment of forest growth and mortality.

The forest management plan section gives the main description of the village forest management plan, i.e. the different specifications of the forest management system that were taken up in Module 2.4.1. It should contain:

• **Forest managers and stakeholders.** This tells who the forest managers and stakeholders in the village are and what are their rights.

• **Forest products and services.** This lists the products and services that the forests are managed for.

• **Forest harvesting cycles.** This tells what the harvesting cycles for timber and other products are.

• **Forest management for grazing and non-timber forest products.** This section introduces the rules that the village has adopted for managing the forest for grazing and non-timber products. The rules are given as an annex to the plan.

• **Timber harvesting sites.** This shows the division of the village forest management area into years of timber harvesting operations.

• **Annual allowable timber harvests.** This gives a tabulation of the annual forest growth and how they convert into annual allowable timber harvests for each forest type.

• **Trees to be harvested.** This gives the guidelines for the selection of trees to be harvested.

• **Timber harvesting methods and plan.** This gives the specifications for timber harvesting, as well as the schedule by year.

• **Regenerating and improving the forest.** This gives the specifications for regenerating the forest after harvest and for improving the condition of the forest.

• **Protecting the forest and preserving its values for various services.** This gives the specifications for forest protection.

• **Conservation.** This gives some specifications concerning the conservation of biodiversity and other forest values.

The plan implementation section should contain:

• **Village forestry association.** This tells about the plan implementation activities that the VFA will do.

• **Contractors.** This shows what activities will be contracted to other parties.

• **Schedule of operations.** This summarizes the activities planned and in what years they will be done. This section may, however, be omitted.

• **Resources to implement the plan.** This gives an estimate of how much human resources and financing will be needed to implement the plan, and also how the financing will be found.

The benefits and impacts section should contain:

• **Timber sales, royalties, and benefits.** This shows the projected timber sales, royalties, and benefits to the VFA for each year.

• **Impact on the forest stand.** This describes what the possible impacts of the forest management on the forest stand are.

• **Sustainability of forest management.** This tells whether the forest management will be sustainable over time or not.
Handout no. 2.4.2.3.1. Model for writing a village forest management plan

Village Forest Management Plan, 1998-2008
For Ban ________
Submitted by the _________ Village Forestry Association

Introduction

1.1 Background

Ban ________ is located in the vicinity of Dong Sithouane in the District of ________, Province of Savannakhet. The village can be reached by road by _______________. Figure 1 shows the location of the village in relation to some of the neighboring villages in Dong Sithouane. (Note: all figures are attached at the last part of the report.)

Ban _____ has a population of _____, consisting of ____ males and ____ females. There are _____ families in ____ households living in the village. The village joined the village forestry program in the year _____.

This report presents the Village Forest Management Plan for Ban ________. It covers the planning period from 1998 to 2008. It was prepared by the _________ Village Forestry Association.

1.2 Objectives

The primary forest management objective of the village is to produce on a sustainable basis a desired mix of products and services from the forests located within the village territory. The different products and services are listed in Section 3.2. This Village Forest Management Plan shows how the forest management objective is to be attained over the planning period. It has several sections, which are aimed at:
• Describing the forest resources of Ban______
• Showing what products and services these forest resources can provide to the residents of Ban______ and to the rest of the country
• Showing how the forest resources of Ban_____ will be managed to provide these products and services
• Demonstrating that the forest management will be beneficial to all concerned and sustainable in perpetuity

1.3 Methodologies

The following describes the methodologies used in preparing this plan:
• The village boundaries were demarcated jointly by a team from the Provincial and District Agriculture and Forestry Offices and a team from the village. Adjacent villages were consulted during the delineation process. Aerial photographs were used to facilitate the consultation and demarcation. The location of corner points was determined in the field by using a GPS device. The village boundaries were then mapped, submitted, and subsequently approved by the governors of the district and the province.
• The boundaries of the forests were mapped at the same time as those of the other land uses by a village team assisted by government forestry staff, who also provided training to the village team. Aerial photographs were used to identify and map the land uses.

• A village team also conducted an inventory of the dry dipterocarp forests following the training provided by government forestry staff. The line-plot method was used at a sampling intensity of 1.25%. The inventory of the high forests had been done within the last two years by government forestry staff, who also used the line-plot method but at a sampling intensity of 3.3%.

• Government forestry staff provided forest stand growth information specific to the village. The information was based on permanent forest growth sample plots, some of which were located in the village.

• A team of villagers prepared a ten-year village land-use plan out of which the Village Forest Management Unit was drawn. Government forestry staff provided training and support. The village land-use plan was presented to and approved by the village assembly.

• The village planning team prepared the different parts of the village forest management plan, including the projected benefits and impacts. The details of these parts were discussed with and approved by the village assembly. Government forestry staff provided training and support to the villagers in the planning process.

2.0 Village Forest Management Unit and its resources

2.1 Village Land-use Plan

Figure 2 shows the map of present land uses in the Ban_____. Based on this map, the villagers’ land-use objectives, and their local knowledge about the land capability in the village, a ten-year Village Land-use Plan was prepared. A map (see Figure 3) serves as a summary of the Village Land-use Plan, which is available in the village as a separate report.

Table 1 shows the present and planned land uses in the village. (Note: all tables are located after the text part of the report.) In 1998, the village has a total area of ____ hectares, of which ____ hectares are forests, ____ hectares are cultivated, and ____ hectares have other land uses. According to the village land-use plan, ____ hectares of forests will be converted to cultivated land within the next ten years.

2.2 Village Forest Management Unit

All forest areas, including stream buffer zones and non-productive areas located therein, which will remain after the planned conversion to cultivated land, are defined as the Village Forest Management Unit. The Village Forest Management Unit covers ____ hectares (see Figure 4 for the extent of the area).
2.3 Forest resources

Several forest types occur in the Village Forest Management Area. These are as follows:
• Mixed deciduous forests and dry evergreen forests (or high forest) covering _____ ha
• High dry dipterocarp forests covering _____ ha
• Low dry dipterocarp forests covering _____ ha

Table 2 summarizes the inventory information about the high forests in the village. The average stand density in terms of stem volume is _____ m$^3$/ha, broken down as follows: _____ m$^3$/ha in trees with DBH of 10-30 cm, _____ m$^3$/ha in trees with DBH of 31-50 cm, and _____ m$^3$/ha in trees with DBH greater than 50 cm. On average there are ____ stems per hectare of trees with at least 10 CM DBH, broken down as follows: ____ stems with DBH of 10-30 cm, ____ stems with DBH of 31-50 cm, and ____ stems with DBH greater than 50 cm.

Table 3 summarizes the inventory information about the dry dipterocarp forests. The average stand density in terms of stem volume is _____ m$^3$/ha, broken down as follows: _____ m$^3$/ha in trees with DBH of 10-30 cm, _____ m$^3$/ha in trees with DBH of 31-50 cm, and _____ m$^3$/ha in trees with DBH greater than 50 cm. On average there are ____ stems per hectare of trees with at least 10 CM DBH, broken down as follows: ____ stems with DBH of 10-30 cm, ____ stems with DBH of 31-50 cm, and ____ stems with DBH greater than 50 cm.

2.4 Forest stand growth

Table 4 shows the growth and mortality information about the forests in the village. On average, trees in the high forest grows at the rate of 4.43 m$^3$/ha annually, but some trees also die (0.91 m$^3$/ha) leaving a net stand growth of 3.52 m$^3$/ha. On average, trees in the dry dipterocarp forest grows at the rate of 1.11 m$^3$/ha annually, but some trees also die (0.53 m$^3$/ha) leaving a net stand growth of 0.58 m$^3$/ha.

3.0 Forest management plan

3.1 Village forest management system

The village forest management system followed in Ban __________ is based on the objective of producing timber for village consumption and sale, while at the same time producing non-timber forest products and conserving the other values of the forest. Timber management is based on low-intensity harvesting with natural regeneration from seed trees. The following elements of the village forest management system are described briefly in the following sections:
• Forest managers and stakeholders
• Products and services to be produced in the forest, i.e. the objectives of management
• Timing or frequency of producing the different products and services
• Location in the forest of the production sites
• Level of production
• Method of production
• Method for ensuring sustainability
3.2 Forest managers and stakeholders

The ____________ Village Forestry Association, whose members come entirely from Ban _________, are the managers of the forests in the village, as contracted by the government following the village forestry program. The customary rights of all villagers to the forests in Ban _________ will be respected by the ____________ Village Forestry Association, but the practice of such customary rights will be coordinated with village forestry activities. Village forestry will also serve the interests of other stakeholders, such as forest industries and the national community, by providing products and services to them, paying taxes, and others.

3.3 Forest products and services

The Village Forest Management Unit will provide the following products and services. Management provisions for obtaining them have been considered in this plan.

**Products**
- Timber for commercial use
- Timber for the use of the village and the village households
- Non-timber forest products (firewood, resin, rattan, vines, forest foods, etc.)

**Services**
- Grazing places for livestock of the village households
- Protection of biodiversity and water resources of the village
- Places for worship and enjoyment of nature
- Enhancement of a healthy natural environment in the village

3.4 Forest management cycles

The following are the forest management cycles, which represent the time periods between successive harvests of different products or between successive sets of management operations at different compartments in the Village Forest Management Unit.
- _____-year cycle for harvesting timber
- one-year cycle for collecting non-timber forest products (firewood, resin, rattan, vines, forest foods, etc.)
- one-year cycle for managing the forest to obtain the different services

3.5 Forest management compartments

**Timber harvesting sites**

Figure 4, which shows the Village Forest Management Unit, also shows how the different forests are divided into _____ timber harvesting sites and forest compartments in each site. On average, _____ ha/year of high forests and _____ ha/year of dry dipterocarp forests will be the site of timber harvesting operations. This means that only about _____ ha of high forests and _____ ha of dry dipterocarp forests will be put into timber production. The other forest areas are not suitable for timber production and are reserved for future development.
Sites for collecting non-timber forest products and for other services

In principle, all forest areas where non-timber forest products occur are the production sites for them. All forest areas are also the sites for deriving the different forest-based services, such as protection of soil, water, and biodiversity, and enhancement of the environment. Since the collection cycle is one year, villagers can come back every year to collect products from these sites. The people of Ban ______ have adopted rules for this purpose. These rules, which also include those for grazing livestock in the forest, are given in Annex 1.

3.6 Annual allowable harvests

Timber harvests

Annual allowable timber harvest for each compartment scheduled for harvesting during any given year were calculated using the following formulas:

\[
\begin{align*}
\text{AAC (live trees)} &= \text{AC} \times \text{A} \times \text{CC} \\
\text{AAC (dying trees)} &= \text{AC} \times \text{B} \times \text{CC} \\
\text{AAC (dead trees)} &= \text{depends on actual availability as determined during the pre-logging survey/inventory each year}
\end{align*}
\]

Where: AAC = Annual allowable cut (m$^3$)
AC = Area of the compartment (ha)
A and B = Volume allowed to be harvested annually (m$^3$/ha/year) from Table 5.
CC = cutting cycle (year)

The figures in Table 5 were calculated based on the following guidelines:

- Since the area has been logged before, the stand density of the forests are quite low at present. Thus, not all of the net growth of the stand is harvested. Part of the stand growth is reserved to allow the stand density to further increase.

- Mixed deciduous and dry evergreen forest stands, which have a density of less than 75 m$^3$/ha, are protected and reserved for future development. They are not included in calculating the size of compartments to be managed. Stands which have a density of more than 75 m$^3$/ha can be managed for commercial timber production, but cutting of live trees in any year is allowed only in compartments with at least 120 m$^3$/ha.

- Harvesting of timber for village consumption is allowed in the dry dipterocarp forest. Harvesting for commercial purposes is allowed only if the dry dipterocarp stand is highly productive (i.e. with at least 100 m$^3$/ha of stem volume). Stands which have a density of less than 50 m$^3$/ha are protected and reserved for future development. They are not included in calculating the size of compartments to be managed. Stands which have a density of more than m$^3$/ha can be managed for timber production, provided there are at least 10 large trees (i.e. at least 40 cm diameter at breast height or DBH) that can be left as seed trees.

- Allowance for logging damage is 20% of gross harvest of live trees.

- A maximum of 30% of the volume of dying trees is assumed to be recoverable.
Table 6 summarizes the calculation of the annual allowable timber harvests, which was based on the formula and information from Table 5. The annual allowable harvests of commercial timber from the high forests and the highly productive dry dipterocarp forests range from ____ to _____ m$^3$. The annual allowable harvests of timber for household and village use from the dry dipterocarp forests range from ____ to _____ m$^3$.

**Harvest of non-timber forest products**

There is not enough information for determining the maximum annual allowable harvest of non-timber forest products. The collection rules given in Annex 1 allow for the monitoring of annual collection. If the collection level of any product is on a declining trend, it is a sign that the resource base cannot sustain the current level of collection. In this case, either the collection level is reduced or collection is suspended until the resource base recovers.

**3.7 Production methods**

**Selection of trees to be harvested**

Trees will be selected for harvesting following these rules:

- A minimum of 10 seed trees/ha of valuable species will be left, i.e.
  - Medium to large size (actual size depends on the species)
  - Good tree form
  - Capable of good seed production

- Harvesting will be done only in adequately stocked compartments, i.e. not less 120 m$^3$/ha for the high forest and 50 m$^3$/ha for the dry dipterocarp forest

- Commercial harvesting will be allowed only in the high forest and in good dry dipterocarp forests (with volume not less than 100 m$^3$/ha). In general, timber from the dry dipterocarp forest is reserved for village and household use.

- Harvesting will concentrate on the more abundant species among the valuable species or on abundant species with commercial value. Species with patchy or scattered distribution will not be harvested.

- The maximum volume that will be removed depends on the average volume/ha of the compartment. As a general principle, the maximum will be about 6-10% for the high forest and 3-5% for the dry dipterocarp forest, for example, as shown below:

<table>
<thead>
<tr>
<th>Volume (m$^3$/ha)</th>
<th>Maximum for the high forest</th>
<th>Maximum for the dry dipterocarp</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-80</td>
<td>0</td>
<td>or 1 tree/ha</td>
</tr>
<tr>
<td>80-120</td>
<td>6</td>
<td>or 1 big tree/ha</td>
</tr>
<tr>
<td>120-150</td>
<td>7</td>
<td>or 1 tree/ha</td>
</tr>
<tr>
<td>150-200</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>200-250</td>
<td>16</td>
<td>8</td>
</tr>
</tbody>
</table>

- Removal from a clump of trees will be preferred over removal of trees occurring singly. If there are clumps of trees of the same species, one or two trees can be removed from the clump. If there are clumps of trees of different species, one or two
trees can be removed from the clump provided there are enough of the species in the compartment.

- Solitary, good quality trees of the major commercial species will not be cut.
- The opening created in the main canopy will not be more than 20 m for the high forest.
- Trees within 30 metres of a stream or 50 metres of a river will not be cut.
- Trees used for resin collection will be cut only with the permission of and compensation provided to the resin collector.

**Timber harvesting methods and plan**

Timber harvesting will be done as follows:

- Timber harvesting will be done only during the dry season to avoid building all-season roads and to minimize disturbance of the soil.
- Access tracks will be built in the forest by opening a path wide enough for a logging truck (not more than 3 m wide path). Openings will be done by hand tools or small chainsaws. Bulldozers or mechanical road building equipment will not be used. They are not necessary in the flat to rolling terrain in the forest.
- The horizontal alignment of access trails will be decided on the ground to avoid cutting large trees or going through regeneration of valuable species.
- The same access tracks will be used as much as possible in subsequent harvests to avoid making new openings in the forest.
- Directional tree felling will be done to minimize killing of regeneration of valuable species. Stumps will be as short as possible to maximize tree utilization. Logs will be prepared without leaving valuable wood behind in the forest.
- Log extraction will be done by using self-loading logging trucks, which are locally available for contracting. These trucks will transport the logs directly to the second landing.
- Log extraction from the access track by cable from the winch of the logging truck will be done as much as possible to minimize the length of access tracks.

Table 7 shows the timber-harvesting schedule including the opening of access tracks. The length of access tracks to be opened or rebuilt annually varies from ____ to ____ km.
3.8 Method for ensuring sustainability

**Regenerating and improving the productivity of the forest**

The following will be done to regenerate and improve the condition and productivity of the forest:

- Before timber harvesting:
  
  A pre-harvest timber inventory will be done with 10% sampling intensity for small and medium sized trees (10-50 cm DBH) and 100% sampling intensity for trees larger than 50 cm DBH. The information from the inventory will be the basis for annual operations planning and selection of trees to be cut. Seed trees will be identified (minimum of 10 trees/ha). Regeneration will be assessed in low-volume production compartments (i.e. with volume of 120-150 m$^3$/ha). If regeneration is poor in such compartments, timber harvesting will not be done. Vine cutting will be done in compartments selected for timber harvesting. Vines will be cut around trees likely to be harvested. Vine cutting will help to reduce felling damage, increase light to the understory, and reduce post-harvest competition for space.

- Regeneration of openings created during timber harvesting will be by natural means. By leaving an opening of not more than 20 m and an adequate number of good seed trees, natural regeneration is assured. There will be no need for enrichment planting or artificial means to regenerate the forest after timber harvesting.

- Four years after timber harvesting, or at the time of pre-harvest inventory for the next harvesting cycle (in the case of 5-year cycle), assessment of regeneration will be done to see if the forest stand will benefit from enrichment planting or the liberation of saplings of valuable species from competition.

- Enrichment planting, if needed in areas with large openings, will be done using commercial species native to the area.

Table 8 shows the schedule of regeneration and timber stand improvement activities. The area for doing the different activities corresponds to the compartment area scheduled for harvesting in any given year. The area ranges from ____ to ____ ha.

**Protecting the forest and preserving its values for various services**

The following forest protection activities will be done:

- Regular monitoring of the forest will be done to check any illegal cutting.

- The Village Land-use Plan will be implemented, emphasizing the prevention of unplanned conversion of forests to farms or any other land uses. Implementation of the Village Land-use Plan will also result in the protection of the water resources of the village, since forests will not be conserved and land management practices will protect against soil erosion and silting of streams.

- Fire prevention will be discussed in village assembly meetings, especially just before and during the dry season. It will be emphasized that fire destroys the forest, which is
Course 2.5
Village forest management contract and pre-harvest inventory

Introduction

The course is aimed at introducing to the participants the concept of contracting as a means of authorizing village organizations to manage forests. Contracting for forest management requires that the villagers are suitably organized and adequately trained and capable of undertaking forest management activities. The latter is shown initially by their submitting a village forest management plan and subsequently by conducting plan implementation operations, which are undertaken by preparing and implementing annual village forestry operations plans.

Pre-harvest inventory is the main requirement for the preparation of the annual operations plan. Thus, the course covers these two topics together, bundling them in a package that can be completed in two to three training days. The course can be combined with other courses if desired to produce a one-week course.

Contents

This course consists of two modules:

Module 2.5.1 Contracting for management of village forests. In this module, the participants learn how to prepare a village forest management contract and how to go about the signing of the contract between the village organization and the government.

Module 2.5.2 Designing, preparing for, and conducting annual pre-harvest inventories. The participants learn all the operations involved to produce forest inventory information needed for planning the management of annual compartments.
Module 2.5.1
Contracting for management of village forests

Introduction

This module is aimed at strengthening the technical capability of the forestry staff to assist the villagers in preparing a village forest management contract and negotiating and signing the contract with the government authorities.

Contents

The module consists of two lessons:

Lesson 2.5.1.1 The village forest management contract - In this lesson, the participants learn the basic contents of a village forest management contract and how to formulate them.

Lesson 2.5.1.2 Negotiating and signing the village forest management contract - The participants learn the steps needed to negotiate and sign the contract.
Lesson 2.5.1.1  
The village forest management contract

Objectives

At the end of the lesson, the participants should be able to explain the importance, elements, terms, and conditions of the village forest management contract.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape  
Model village forest management contract (see attached handout)  
Village forestry flipchart

Time

Two hours

Process

1. Discuss with the participants the provision of the Forest Law which requires that an organization needs authorization from the forestry authorities before they can be allocated forest for management. Authorization may come in the form of a contract. Discuss with them what a contract is and what forest-related rights it can give to an organization.

2. Use the model contract to discuss the terms and conditions that a village forest management contract should have.

3. Ask the participants to organize into groups. Ask each group to draft a similar village forest management contract.

Learning notes

A village forest management contract is an agreement entered into between organized villagers (represented by the village administration and the VFA) and the state (local government represented by DAFO, PAFO, and the Office of the Provincial Governor) confirming the village-state partnership in the sustainable management of designated village forests.

Importance of a village forest management contract:

1. It legally binds the partnership arrangement between organized villagers and the state in the sustainable management of designated village forests.

2. It spells out the terms and conditions, including the rights and obligations of organized villagers and the state in the sustainable management of designated village forests.
3. It gives the right to organized villagers to manage designated village forests on a sustainable basis.

The main parts of a village forest management contract are given below. The model contract provides example of the contents and wording of each of the parts of the contract.

Rationale
Contracting parties
Terms and conditions
  Rights and obligations
    Village forestry association
    PAFO/DAFO
Effectivity, suspension, succession, and termination of contract
Amendment
Arbitration
Village Forest Management Contract

Between

The Government of Lao PDR
Through
The Provincial Government of Savannakhet
Represented by
The Provincial Agriculture and Forestry Office and
The _________________ District Agriculture and Forestry Office

And

The villagers of Ban _________________
Represented by
The _________________ Village Administration and
The _________________ Village Forestry Association
WHEREAS

1. The forest of Dong Sithouane in Savannakhet Province is a valuable resource as a source of food, income, and other forest products for villagers and a source of revenue for the Government;

2. The Government of the Lao PDR, which represents the national community as owner of the country’s forests, recognizes the importance of villagers’ participation in sustainable forest management, and has initiated village forestry as a means to establish a partnership with organized villagers for sustainable forest management;

3. The Forest Law, dated 2 November 1996 and its implementing Order No. ___/MAF, dated ____ 1998, on Village Forestry Rules and Regulations, and Decree No. 102/PM, dated 5 July 1993, on the Organization and Administration of the Village, promote and support forest management by individuals and organizations; and Order No. ___/MAF, dated ____ 1995, on Customary Rights and Use of Forest Resources, recognizes the customary rights of villagers on the use of forest land and forest products;

4. The villagers of Ban ______________ (hereinafter referred to as the ”Village”), a village situated in the Dong Sithouane area, confirmed their willingness to participate in village forestry and have organized themselves by forming the ______________ Village Forestry Association (hereinafter referred to as the ”VFA”);

5. The VFA operates as a non-profit organization according to its roles and by-laws in conformity with the regulations of the village as provided for in Article 7 of Decree No. 102/PM, and is authorized by the ______________ Village Administration to collaborate with the Government on village forestry activities;

THEREFORE, in consideration for the foregoing premises,

6. A Village Forestry Management Contract (hereinafter referred to as the ”Contract”) is made and entered into by and between the Government of the Lao PDR and organized villagers of Ban ______________ represented by the Village Administration and the VFA. The Government is represented by the Savannakhet Provincial Agriculture and Forestry Office (hereinafter referred to as ”PAFO”) and the ______________ District Agriculture and Forestry Office (hereinafter referred to as ”DAFO”). Said parties have made the following agreement for the sustainable management of designated village forests, and the following terms and conditions set forth the rights and obligations of the parties to this Contract:

Rights and Obligations

7. The ______________ Village Forestry Association shall:

7.1 Manage (according to a plan approved by PAFO as given in Section 7.3) _____ hectares of high forests and _____ hectares of dry dipterocarp forests (together hereinafter referred to as the ”Forest”) situated within the village, whose boundaries have been approved by the Government as shown in the attached village map (Attachment 1); and effectively protect the forest from fire, illegal logging, illegal hunting, and unauthorized land uses.
7.2 Assist the Village in formulating the Village Land-Use Plan, including the delineation of the area of the Forest, and updating it every ten years or sooner as deemed necessary by the Village.

7.3 Formulate a Village Forest Management Plan (hereinafter referred to as the “Management Plan”) and update it every ten years or sooner (if PAFO or the VFA determines that it does not enable the Forest to be managed in an environmentally sustainable manner), and submit the Management Plan to PAFO for approval.

7.4 Prepare a Village Forest Operations Plan (hereinafter referred to as the "Operations Plan") covering three years of operations and based on the approved Management Plan, and submit the Operations Plan to PAFO for approval at least ninety (90) days before the start of the scheduled operations.

7.5 Have the sole rights to harvest timber and non-timber forest products from the Forest in accordance with the approved Management Plan, approved Operations Plan, and the provisions of the Forest Harvesting Code and the Order on Customary Rights and Use of Forest Resources.

7.6 Have the rights to sell the harvested timber and non-timber forest products to buyers at landings or sales sites authorized by PAFO, or process these products on its own.

7.7 Keep daily records of timber and non-timber forest products harvesting using the official forms of PAFO and submit the records to DAFO every month.

7.8 Carry out all forest regeneration, stand improvement, and protection activities as prescribed in the approved Management Plan and approved Operations Plan.

7.9 Pay to the Government at official rates and manner of payment (a) royalties for all harvested timber, except those marked by PAFO for infrastructure development and subsistence use of the Village, and (b) taxes for non-timber forest products harvested, except those for subsistence use of the villagers.

7.10 Pay a fine that is double the royalty for trees felled which have not been marked for felling in the approved Operations Plan; and a fine that is equal to the royalty for sound wood from trees marked to be felled but left behind in the forest after felling.

7.11 Operate according to the Village Forestry Rules and Regulations approved by the Ministry of Agriculture and Forestry.

8. The Provincial Agriculture and Forestry Office shall:

8.1 Provide adequate training to VFA members on the organizational, technical, and entrepreneurial aspects of village forestry.

8.2 Provide adequate technical assistance to the VFA in the preparation and implementation of the Management Plan and Operations Plan.

8.3 Evaluate the Management Plan and Operations Plan submitted by the VFA and inform the VFA of its approval, or otherwise the reasons for disapproval and the corrections required, within thirty (30) days after receiving the plan.
8.4 Check that village forestry activities are carried out by VFA according to the Village Forestry Rules and Regulations, approved Management Plan, and approved Operations Plan and, in case of violations, impose the pertinent fines and other penalties.

9. The __________ District Agriculture and Forestry Office shall:

9.1 Assign an extension agent to work with the VFA.

9.2 Assist the VFA in formulating and implementing the Village Land-Use Plan, Management Plan, and Operations Plan and in participatory monitoring and evaluation.

9.3 Assist PAFO in training VFA members.

9.4 Conduct forestry extension and village organizing work in collaboration with the VFA.

Effectivity, suspension, succession, and termination of the Contract

10. The Contract shall take effect immediately upon signing by all parties concerned and shall continue to be effective for a period of fifty (50) years from the date of signing. Thereafter the parties concerned shall negotiate for the renewal of the contract for a similar period.

11. PAFO shall suspend operations under the Contract in case of gross violation of the Village Forestry Rules and Regulations, or if there is no approved Management Plan or Operations Plan, and shall notify the VFA accordingly in writing. PAFO shall lift the suspension in writing within thirty (30) days after the VFA has satisfactorily made the required corrections.

12. If the Village is dissolved and absorbed by another village, the VFA, if any, of the absorbing village may succeed the VFA of the dissolved Village as party to the Contract provided that written notification is given to PAFO; otherwise, the Contract is terminated.

Amendment

13. Upon the proposal of any of the contracting parties, the Contract may be amended as mutually agreed upon by all the parties concerned.
**Arbitration**

14. In case of any conflict relating to this Contract that the parties cannot resolve by themselves, arbitration shall be done in a meeting chaired by a representative of the Department of Forestry with all the parties concerned duly represented. If this fails to resolve the conflict, a further meeting shall be held to be chaired by a representative of the Ministry of Agriculture and Forestry. If still this fails, the matter shall be brought to the proper Courts for settlement.

The VFA shall have the rights to engage a legal adviser or any suitable party for assistance.

The provisions of this Contract have been thoroughly discussed and fully negotiated in a language understandable to all parties concerned. The Contract is hereby signed in four original copies, a copy each for the Village Administration, VFA, PAFO, and DAFO. A copy of the Contract shall be provided to the Department of Forestry.

**For the villagers of Ban _____________**

Chairperson, VFA
Date:

Head, Village Administration
Date:

**For the Government**

Head, ________ DAFO
Date:

Head, PAFO
Date:
Lesson 2.5.1.2
Negotiating and signing the village forest management contract

Objectives

At the end of the lesson, the participants should be able to explain the guidelines and procedures in negotiating and signing the village forest management contract between the VFA and the government.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape

Time

Thirty minutes

Process

1. Discuss with the participants who may be authorized to sign the village forest management contract so that it becomes a legally binding document for the organization and offices represented in the contract.

2. Continue by discussing the guidelines and procedure in negotiating and signing the village forest management contract. Use the attached flowchart.

Learning notes

As discussed in Lesson 2.5.1.1 the signatories of the village forest management contract include:

1. Organized villagers represented by the Village Chief and VFA Chairperson
2. The state as represented by DAFO, PAFO, and the Office of the Provincial Governor

The officers signing on behalf of these above organizations and offices should have the authority to sign contracts binding their respective organization or office.

The guidelines and procedures in negotiating the contract with villagers are as follows:

1. Meet with the village administration, VFA officers, and key villagers and discuss how the village forest management contract relates to village forestry (use the village forestry flipchart and hand out copies of the contract). Emphasize the rationale and importance of the contract. Discuss thoroughly the terms and conditions of the contract.

2. The VFA officers and the village forestry administration meet with the entire village to discuss the contract. Give necessary assistance as needed. Make sure that there is active participation and representation of villagers including women during the discussion.
3. Provide enough time to villagers to discuss the terms and conditions of the contract among themselves. DO NOT RUSH THE PROCESS.

4. Get a consensus of the villagers on the terms and conditions of the contract. Consider any suitable addition, deletion, or amendments of the contract as proposed by the villagers.

5. Make sure that all terms and conditions of the contract are fully understood by the villagers before the signing of contract.

After the contract is signed by the authorized representative of the VFA (generally the VFA Chairperson) and the village chief, the contract is cours ed through DAFO, the District Chief, Forestry Section, PAFO, and the Provincial Governor. See figure 1 for the flowchart for securing the approval of a village forest management plan and contract.
Figure 1. Flowchart for securing the approval of a village forest management plan and contract

Village Forestry Association

The VFA Chairperson sends 5 copies of the VFMP and VFMC, with a cover letter, to PAFO through DAFO

DAFO receives the VFMP and VFMC and forwards it to its Forestry Unit for review

DAFO Forestry Unit reviews the VFMP and VFMC.

DAFO returns the VFMP & VFMC to the VFA for revision

PAFO returns the VFMP & VFMC to DAFO for revision

PFMO Director approves the VFMP & VFMC and sends copies to:
1. VFA
2. DAFO
3. DOF
A copy of the plan is kept at PAFO
Module 2.5.2
Designing, preparing for, and conducting annual forest inventories

Introduction

This module is aimed at strengthening the technical capability of the forestry staff to train and assist village teams in designing, planning, and conducting annual pre-harvest inventories. Its specific objectives are:

- To teach the participants the concepts and operations involved in conducting annual pre-harvest inventories.
- To provide the participants with skills in conducting annual pre-harvest inventories.
- To develop the capability of the participants to impart the above concepts and skills to villagers.
- To organize a subsequent village-level training programme on conducting annual pre-harvest inventories.

Contents

The module consists of five lessons.

Lesson 2.5.2.1 Objectives of and organizing for the pre-harvest inventory. In this lesson, the participants learn the importance of annual pre-harvest inventories and how to organize themselves to do them.

Lesson 2.5.2.2 Designing the pre-harvest inventory. The participants learn the components of a pre-harvest inventory and how to design and lay them out in a map.

Lesson 2.5.2.3 Pre-harvest inventory fieldwork. The participants learn all the steps in conducting a pre-harvest inventory in the forest.

Lesson 2.5.2.4 Pre-harvest inventory field practice exercises. The participants apply what they learned in Lesson 2.5.2.3 by doing field practice exercises.

Lesson 2.5.2.5 Pre-harvest inventory calculations and reporting the results. The participants learn how to calculate the pre-harvest inventory results and present them in a report which is convenient for subsequent use.
Lesson 2.5.2.1
Objectives of and preparing for the pre-harvest inventory

Objectives

At the end of the lesson, the participants should be able to:
1. Explain the reasons for the pre-harvest inventory
2. Explain how to organize teams for the pre-harvest inventory

Methods

Discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

Thirty minutes

Process

1. Discuss with the participants what a pre-harvest inventory is, and when and why it is done.

2. Continue by discussing who should compose a pre-harvest inventory team and what equipment and materials must be provided to the team.

Learning notes

A pre-harvest inventory is an inventory of harvestable trees and the potential tree crop that is left after the harvest. It is done before planning the harvesting of an annual harvesting block, i.e. before annual operations planning. It is a more accurate inventory than the ordinary forest inventory, which was done to collect resource information for forest management planning purposes.

The pre-harvest inventory is used to collect information for operations planning, i.e.
1. the quantity and quality of harvestable trees;
2. the availability of potential seed trees to regenerate the stand; and
3. a more accurate inventory of the potential tree crop, including the availability of regeneration especially in low-volume compartments.

The pre-harvest inventory team should be composed of trained villagers. The minimum team composition should be as follows:
1. A team leader who also acts as recorder, map maker, and rear chainman
2. A brusher-compass man
3. A front chainman
4. Two tree spotters

A trained team should be able to inventory at least 2 hectares per day. Once they are proficient, the team should be able to double their rate of work. Hence, if the area to be
inventoried is 160 ha and it is desired to complete the work in four weeks, then the number of teams needed is as follows:
1. \(160/2 = 80\) team-days or about 13 team weeks
2. \(13/4 = 3\) teams

The pre-harvest inventory team should be provided with:
1. Tree caliper
2. Compass, clinometer, and 30-m metric tape
3. Ropes with length preset to the strip width and plot radius
4. Fieldsheets and maps
5. Writing tools and materials
6. Camping and eating wares
Lesson 2.5.2.2
Designing the pre-harvest inventory

Objectives

At the end of the lesson, the participants should be able to:
1. Explain the pre-harvest inventory design
2. Layout on the map the pre-harvest inventory strips and plots

Methods

Discussion, lecture, and supervised individual work

Materials

Large brown sheets of paper, marker, and masking tape
Sample of a pre-harvest inventory map of a harvesting block (see attached handout)
Sample map for laying out strips and plots (see attached handout)
Drafting tools

Time

Two hours

Process

1. Discuss with the participants the components of a pre-harvest inventory and how each component is designed.

2. Demonstrate how the strip lines and sample plots are laid out in a map. Use the sample pre-harvest inventory map.

3. Ask each participant to use the sample map to practice in laying out striplines and sample plots. Give the bearings of the baseline and striplines.

Learning notes

Components of a pre-harvest inventory

A pre-harvest inventory consists of three different inventories, one for each of three different tree size classes:

1. **A 100% inventory of large trees** (i.e. 50 cm DBH or larger), which will be harvested or left as seed trees. Several 50-m wide strips are laid out to cover the annual harvesting blocks. A stripline is laid out at the middle of the strip, and large trees within 25 m distance from this line are spotted, measured, and mapped.

2. **A line-plot inventory of small trees and poles** (10-50 cm DBH) using a 10% sampling intensity. A 0.1-ha circular plot (17.84-m radius) is laid out per hectare of the annual harvesting blocks (i.e. 100 m between lines or at every other stripline and 100 m between plots along the line).
3. **An inventory of regeneration** (at least 1.3 m in height and below 10 cm DBH) in low-volume compartments (i.e. below 150 m$^3$/ha). Ten plots are selected for each low-volume compartment larger than 10 ha. Using the same plot center as the above line-plot inventory, regeneration is tallied for saplings that are within a radius of 5 m (i.e. plot size of 78.54 m$^2$).

**Laying out the striplines**

The strips are first mapped by harvesting block (scale 1:20,000). The strips should be laid out parallel to each other, leaving no gaps or overlaps between them. To ensure this, lay out the striplines 50-m apart perpendicular to a straight baseline (see the sample pre-harvest inventory map). Determine the bearings (direction) of the baseline and the striplines.

**Laying out the sample plots**

Along every other stripline (or 100 m apart) lay the first plot 50 m from the baseline, and subsequent plots 100 m apart (see the sample pre-harvest inventory map).

**Selecting plots for the inventory of regeneration**

As mentioned above, the inventory of regeneration is done only if the compartment has a bole volume of less than 150 m$^3$/ha. If the harvesting block consists of more than one compartment, all of the compartments should be assessed if a regeneration inventory is needed.

If the area of the compartment to be inventoried is less than 10 ha, there will be less than 10 plots in the compartment, and all of them should be selected for the inventory of regeneration.

If the area of the compartment to be inventoried is more than 10 ha, only 10 plots will be selected for the inventory of regeneration. These are the low-volume plots (less than 150 m$^3$/ha, or containing less than 6 trees larger than 50 cm DBH, or less than 7 trees larger than 40 cm DBH).
Handout no. 2.5.2.2.1. Sample of a pre-harvest inventory map of a harvesting block

stripline
strip boundary
baseline
roadtrack
Handout no. 2.5.2.2.2. Sample map for laying out striplines and sample plots
Lesson 2.5.2.3
Pre-harvest inventory fieldwork

Objectives

At the end of the lesson, the participants should be able to:
1. Learn all of the steps in conducting a pre-harvest inventory
2. Set up the baseline and striplines and locate the center of the sample plots in the field
3. Conduct tree measurements in the strips and plots
4. Use the pre-harvest inventory field forms
5. Map out large trees in a compartment

Methods

Discussion and lecture-demonstration

Materials

Large brown sheets of paper, marker, and masking tape
Sample field forms (see attached handouts)
Map showing the inventory layout (see attached handout)
Sample inventory tools (including clinometer, tree caliper, etc.)

Time

One hour and thirty minutes

Process

1. Discuss with the participants the steps to be taken in conducting a pre-harvest inventory.

2. Proceed by discussing the actual fieldwork in more detail.

Learning notes

Overview of the fieldwork of the staff assisting the villagers

The following are the steps to be undertaken during the fieldwork.

1. Meet with the village core group or VFA and the village administration to discuss with them the programme of the fieldwork. These key villagers would have been informed already in earlier meetings about the activity and its objectives.

2. Request the core group or VFA to form the village inventory teams.

3. Conduct training of the village inventory teams.

4. Assist the village inventory teams in the early stages of the activity, including:
a. Mapping the annual harvesting blocks to be inventoried by increasing the scale of the blocks from 1:20,000 (in the map of the village forest management plan) to 1:10,000.
b. Laying out on the map the baselines, striplines, and sample plots.
c. Preparing for the fieldwork.
d. Locating the baseline of the first compartment in the field.
e. Locating the striplines.
f. Spotting and measuring large trees along the strip in 25-m sections. Recording and mapping the trees.
g. Locating the center of the sample plots. Measuring and recording the measurements of small trees and poles that fall within a radius of 17.84 and, in the regeneration plots, regeneration that falls within a radius of 5 m.

5. Monitor the work and provide assistance to the village inventory teams. Check the calculations of results done by the village inventory teams.

6. After the activity is completed, present the results to the core group or VFA and ask them to take care of the results in preparation for their use in annual operations planning.

Locating the baseline, strip lines, and sample plots in the field

To locate the baseline, locate a point on the ground corresponding to a known point in the map (e.g. a point in the access road, stream, or any distinct ground feature which is represented in the map). Lay out the rest of the baseline in the direction of the bearing which has been determined earlier from the map.

To locate the first stripline, find its origin along the baseline, i.e. the point where the stripline intersects the baseline. This is found by measuring on the map its distance from a known point on the baseline and measuring this distance on the ground. For example, suppose a point on the baseline is on the access road and this can be pinpointed on the map. On the map, measure the origin of the stripline from this known point. On the ground, measure the same distance along the baseline to locate the origin of the stripline. Subsequent striplines are spaced 50 m apart.

The center of the first sample plot along a stripline is located 50 m from the origin. Subsequent sample plots are spaced 100 m apart. The plot centers and the starting point of all striplines must be marked with a piece of hardy timber with the plot or strip number painted. This will facilitate the conduct of pre-harvest inventory in the next cycle (e.g. after 5 years).

Selecting trees for measurement

Along the strip, all living trees with DBH of 50 cm or larger, which are within 25 m from the stripline, are selected for measurements. Large dead trees, which can produce sound logs, should also be selected for measurements. Assign a spotter to spot trees on the right side of the stripline and another spotter on the left side. With training and practice, the spotters should be able to judge whether a tree is within 25 m from the stripline. When in doubt, the spotter should have the distance of the tree measured from the stripline. Spotted and measured large trees should also be mapped.
On the sample plot, all living trees with DBH 10 cm or larger should be measured if found within 17.84 m from the centre of the plot. Large trees (i.e. with 50 cm DBH or larger) should also be mapped.

If the plot has been selected earlier for regeneration inventory, all saplings that are at least 1.3 m in height and less than 10 cm DBH should be recorded if found within 5 m from the centre of the plot.

**Mapping large trees**

First determine the location of the tree with respect to the stripline (i.e. its shortest distance from the stripline, which is measured or estimated visually perpendicular to the stripline). See the figure below. With practice the spotters should be able to estimate visually the distance from the stripline. An accuracy of within 2-3 m is desired. Once the location is known, this is plotted on the map (using the tree mapping form, see Handout 2.38) to scale. The distance is also recorded in the field sheet in case it is needed for verification.

**Figure illustrating the mapping of large trees**

For easy mapping of the tree with respect to the stripline (i.e. the points marked X on the figure above), the crew should move along the stripline at 25 m intervals, spotting trees in this area before moving for another 25 m. Mark or tie a knot every 5-m distance along the 25-m measuring rope so that it is easy for the team leader to verify the location of the tree with respect to the stripline.

Important features of the compartments, such as tracks and streams, found along the stripline should be drawn on the tree map.

**Measuring trees and recording the measurements**

The most important features to be recorded are the DBH and the species. In addition, for large trees, record also the height, and the quality or status of the tree (see classification below). The tree height is determined by taking a clinometer reading from a known distance from the tree (e.g. 15 m or 20 m), and then reading off the distance directly from the clinometer.
The following figure provides a quick review on the method of measuring the DBH.

**Figure illustrating where to measure the DBH**

The quality of the tree is recorded according to the following classification:

1. Healthy tree with no or minor damage
2. Tree with holes for resin tapping, still living
3. Tree with serious damage or disease, still living but might die within the next cutting cycle
4. Dead tree but still standing
5. Dead tree no longer standing but can produce a sound log

Regeneration is counted by species and recorded in a separate sheet.

There are three types of pre-harvest inventory forms. Form 1 is for large trees measured within the strip; Form 2 for small trees measured within the plot; Form 3 for regeneration (see sample forms). Take time to study the different parts of these field forms to see what information should be entered.
Handout no. 2.5.2.3.1. Sample tree mapping form
### Pre-harvest inventory form 1

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Handout no. 2.5.2.3.3.  Pre-harvest inventory form 2

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รวมผลผลิต/ลูกม. = รวมผลผลิต x ตัวอยู่ที่OLS

ตัวอยู่ที่OLS = ตัวอยู่/ตัวอยู่ x จำนวนลูกม.
Handout no. 2.5.2.3.4.  Pre-harvest inventory form 3

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จำนวนต้นที่ปลูกต่อโค้ง = จำนวนต้น x 127.32
Lesson 2.5.2.4
Pre-harvest inventory field practice exercises

Objectives

At the end of the lesson, the participants should be able to conduct the pre-harvest inventory in the forest.

Method

Supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Tree caliper
Compass
Ropes with length preset
Field forms and maps
Writing tools and materials

Time

Three hours

Process

1. Organize the participants into teams of 5 members.

2. Select a suitable forest site for the exercise and bring the participants there.

3. Assume a certain bearing for the baseline.

4. Proceed with the location of the baseline and strip line.

5. Proceed with the tree spotting and measurements of the spotted trees along the strip. Map the spotted trees and indicate the tree numbers in the map. Enter the corresponding tree measurements in Form 1.

6. Locate the first sample plot along the strip line. Proceed with the measurements of the trees in the plot. Enter the measurements in Form 2. Assuming the plot is a regeneration plot, count the number of regeneration within a 5-m radius from the plot center. Enter the regeneration count in Form 3.

7. Note important features of the ground such as tracks and streams. Mark them on the map along with their direction.

8. Continue the work to extend the strip further. If there is enough time, locate and do measurements in another sample plot.
Lesson 2.5.2.5
Pre-harvest inventory calculations and reporting the results

Objectives

At the end of the lesson, the participants should be able to:
1. Calculate the pre-harvest inventory results
2. Present the pre-harvest inventory results in a format that is useful for operations planning

Methods

Lecture-demonstration and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Calculator
Field forms and maps from the fieldwork
Tree volume table (see attached handout)

Time

Three hours

Process

1. Show the participants how the results are calculated. The calculation formulas are indicated in the bottom of the field forms. Ask the participants to take time to study how the items in the columns/rows in the field forms are calculated.
2. Ask each group to calculate the results of their fieldwork (Lesson 2.5.2.4) and to present the results in a useful format.

Learning notes

Steps in calculating, presenting, and keeping the results for future use

Step 1. Estimating the volume of large trees. The volume of large trees is estimated by using a tree volume table. The volume estimate is then recorded in Pre-harvest Inventory Form 1.

Step 2. Estimating the plot volume. The procedure is as follows:
1. Estimate the number of trees per hectare by species and dbh class (say N) by multiplying the sampled number of trees by 10 (the area factor for a 10% sampling intensity).
2. Estimate the volume of trees per hectare by species and dbh class by multiplying the number of trees (N) by the average volume trees falling in the given dbh class.
3. Add all estimated volumes over all species and dbh class to get the total volume of trees with dbh 5-49 cm.

4. Multiply the total volume of large trees (dbh 50 cm or larger) that fall within the sample plot (check the tree map to do this) by 10 (the area factor). Add these volumes to get the total volume of large trees.

5. Add the total volume of small trees and large trees to get the plot volume.

6. Tabulate the plot volume by plot number.

**Step 3. Estimating the regeneration count.** Classify the regeneration into commercially valuable species, other commercial species, and non-commercial species. Calculate the arithmetic average per plot of the regeneration count in each species class. To get the regeneration count per hectare, multiply the regeneration count per plot by the area factor. The area factor is equal to the product of 10 plots per compartment multiplied by the area of the plot \[3.1416 \times 5 \text{ m} \times 5 \text{ m} = 78.54 \text{ m}^2\] and then divided by the area of the compartment.

**Step 4. Determining the stand structure.** The stand structure in the compartment is the diameter distribution of trees in the compartment, estimated by the tree count by dbh class. The tree count for dbh classes below 50 cm is found by multiplying the total counted in each dbh class by the area factor of 10. Trees in dbh classes above 50 cm are counted directly from Pre-harvest Inventory Form 1. The results of this step should include:
1. Stand structure for all species (all dbh classes 10, 20, 30, etc.)
2. Stand structure for by species (large trees, i.e. dbh classes 50, 60, etc.)

**Step 5. Writing the pre-harvest inventory summary.** The pre-harvest inventory summary is written on a single sheet of paper. It contains the following:
1. Heading (i.e. Pre-harvest inventory summary for year [indicate the year])
2. Compartment numbers included in the inventory
3. Average volume per hectare in each compartment (small trees, large trees, and total)
4. Regeneration count per hectare in each compartment

**Step 6. Keeping records of the pre-harvest inventory.** Records of the pre-harvest inventory should be made available for the preparation of the annual village forestry operations plan. Utmost care should be taken when using the records. If necessary a working copy should be made (e.g. tree map). After each use, the records should be kept with the VFA Secretary.
Handout no. 2.5.2.5.1. Sample tree volume table

VOLUME TABLE FOR COMMERCIAL BROADLEAVED SPECIES

\[ V = \left(\frac{D}{200}\right)^2 \times 3.1416 \times BL \times FF \]

The volume is given in cubic meters.

\[ FF = 0.8212 - 0.0092 \times BL \]

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Course 2.6
Annual village forestry operations planning

Introduction

The course is aimed at developing the capability of the forestry staff to train and assist the village planning teams in preparing their annual village forestry operations plan. The participants learn how to delineate harvesting sub-compartments in the tree map, calculate maximum allowable cut from each sub-compartment, select trees for cutting, specify various annual operations, and write the planning document.

Contents

This course consists of two modules:

Module 2.6.1 Specification of the annual operations. In this module, the participants learn how to specify the details of the village forest management system that apply to the coming year.

Module 2.6.2 Writing the annual operations plan. The participants learn all how to incorporate the details and write the annual operations plan.
Module 2.6.1  
**Specification of the annual operations**

**Introduction**

This module is aimed at strengthening the technical capability of the forestry staff to train and assist the villagers in specifying the details of the village forest management system that apply to the coming year. The participants are introduced to the process of preparing annual operations plans. Then they learn how to produce the maps, graphics, and tables that describe the coming annual operations.

**Contents**

The module consists of five lessons:

**Lesson 2.6.1.1 Introduction to annual operations planning.** In this lesson, the participants learn the relationship between annual operations planning and the rest of the village forest activities, as well as the rationale for doing the activity.

**Lesson 2.6.1.2 Preparing the annual operations plan map.** The participants learn how to prepare a consolidated map from separate tree maps, sub-dividing the annual compartment into sub-compartments, and calculating the maximum allowable cut for each sub-compartment.

**Lesson 2.6.1.3 Selecting trees to be cut and seed trees.** The participants learn the rules for selecting trees to be cut, implementing them using information from the pre-harvest inventory, and preparing the tree marketing list.

**Lesson 2.6.1.4 Laying out access tracks.** The participants learn how to provide access to cutting of the selected trees.

**Lesson 2.6.1.5 Specifying other annual operations.** The participants learn how to specify the details of various annual operations such as tree marking, vine cutting, collection of non-timber forest products, timber stand improvement, and forest protection.
Lesson 2.6.1.1
Introduction to annual operations planning

Objectives

At the end of the lesson, the participants should be able to appreciate the need for and purpose of the annual operations plan.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape
Village forestry model poster

Time

Thirty minutes

Process

1. Discuss with the participants the place and timing of annual operations planning in the set of village forestry activities. Make use of the poster on the village forestry model. Why is the annual operations plan important? Can annual operations, e.g. timber harvest, be done properly and in a sustainable manner without the guidance from a well-formulated plan?

2. Discuss with the participants the formation of the village planning team, i.e. who should compose it, manage the work, and assume responsibility for its completion, etc.
Lesson 2.6.1.2
Preparing the annual operations plan map

Objectives

At the end of the lesson, the participants should be able to draft the maps and incorporate on the map the site-specific information needed for annual operations planning.

Method

Supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Sample tree map sheets from the pre-harvest inventory (see attached handout)
Sample pre-harvest inventory results (see attached handouts)

Time

Two hours

Process

1. Ask the participants to work with their group. Ask each group to consolidate the individual tree maps into a single map of scale 1:1000.

2. Ask each group to write the plot volumes on the map near the plot number.

3. Using the plot volumes as guide, ask each group to sub-divide the annual compartments into sub-compartments. The objective is to maximize the sustainable cut for the year, considering that no logging is allowed in sub-compartments with stand density below 120 m$^3$/ha, and higher cut is allowed in sub-compartments with stand density of at least 150 m$^3$/ha than in sub-compartments with stand density of 120-149 m$^3$/ha. The maximum is attained when the area where no logging is allowed is minimized and where logging is allowed the area of maximum cut (i.e. where the stand density is at least 150 m$^3$/ha) is maximized.

4. After the sub-compartments have been delineated, ask each group to calculate the maximum allowable cut for each compartment. This is done by multiplying the maximum annual allowable cut per hectare for the specific stand density by the area of the sub-compartment and the cutting cycle.
Sample tree maps for the planning exercise
Sample tree maps for the planning exercise (p.2)
Sample tree maps for the planning exercise (p.3)
Sample tree maps for the planning exercise (p.4)
Sample tree maps for the planning exercise (p.5)
Sample tree maps for the planning exercise (p.6)
Sample tree maps for the planning exercise (p.7)
Sample tree maps for the planning exercise (p.8)
Sample tree maps for the planning exercise (p.9)
Sample tree maps for the planning exercise (p.10)
Sample tree maps for the planning exercise (p.11)
Sample tree maps for the planning exercise (p.12)
### Handout no. 2.6.1.2.2. Sample calculated pre-harvest inventory forms

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**Remarks:**
1. ถ้ามีการเปลี่ยนแปลง ให้บันทึกลงมือ
2. ถ้ามีการเปลี่ยนแปลง ให้แสดงชัดเจน
3. ถ้ามีการเปลี่ยนแปลง ให้บันทึกลงมือ
4. ถ้ามีการเปลี่ยนแปลง ให้แสดงชัดเจน
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1- ប្រឈមប្រពន្ធនុក ទៅដល់ដំណើរ  
2- ប្រឈមប្រពន្ធនុក ទៅដល់ដំណើរ  
3- ប្រឈមប្រពន្ធនុក ទៅដល់ដំណើរ ដែលស្វែងរកមកពីរៀបរាងេប្រពន្ធនុក  
4- ប្រឈមប្រពន្ធនុក  
5- ប្រឈមប្រពន្ធនុក ដែលស្វែងរកមកពីរៀបរាងេប្រពន្ធនុក  

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សរុបចំនួន = 37.018 m³

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2- ទំហំសំឡង សារេអវិជ្ជមាន  
3- ទំហំសំឡង សារេអវិជ្ជមាន សុវត្ថិភាពស្អាតខ្ជាតី  
4- ទំហំសម្រាប់ដំបូង  
5- ទំហំសំឡង សារេអវិជ្ជមាន សុវត្ថិភាពស្អាតខ្ជាតី  

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ប្រាប់ (m³):

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2. កើតប្រាប់ពេញព្យាយាម នៅពេលក្រោយ ។
3. កើតប្រាប់ពេញព្យាយាម នៅពេលក្រោយ ។
4. កើតប្រាប់ពេញព្យាយាម ។
5. កើតប្រាប់ពេញព្យាយាម ។

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2- យូរប្រកួតអស់ប្រកួត ។ ប្រកួតជំនាញ 
3- យូរប្រកួតអស់ប្រកួត ។ ប្រកួតជំនាញ ក្នុងមួយឆ្នាំ អត្ថប្រយោជន៍រដ្ឋាភិបាលប្រកួត 
4- ចុងក្រោយអភិវឌ្ឍ 
5- ប្រឹមពីពីរអំពី ២ រំពឹងជំនាញ ។ ប្រកួតជំនាញ 

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សរុបស្រាក 49.986 ម3

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2- ដំណើរការតំបន់១១ ដ៏ខ្វះអារប់២។
3- ដំណើរការអំពីការតំបន់ ៩ ក្នុងក្រុង ដ៏ខ្វះអារប់២។
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3- ប្រាកដប្រឈមប្រារព័ណ៌កុមារនិងអំពីរីករាល់ក្នុងការដោះស្រាយការងារតាំងតែនឹងប្រការ
4- ប្រាកដក្រោយពីក្រាប
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ចុងក្រោយ ២៤,២៨៩ m3

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1. រៀនស្វែងរកស្គរកើតស្តេច និងមាត់ពីស្រមង្ង់
2. រៀនស្វែងរកជើងដូង និងកួនបឹងពីរីងតូចនៃប្រភេទដែលគ្រាន់តែបែងក្នុងស្រុក
3. រៀនស្វែងរកជើងដូង និងកួនបឹងពីរីងតូចនៃប្រភេទដែលគ្រាន់តែបែងក្នុងស្រុក
4. រៀនដីដ៏ដូរ
5. និងស្វែងរកស្គរកើតស្តេច និងមាត់ពីស្រមង្ង់
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បណ្តាលីយាយ ៣.៤៦៣ m³

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1- ត្រូវការក្មែលពី ព្រៃព៊ុមិសុខ  
2- ត្រូវការក្មែលពីស្អាត និងក្មែលជាមុន 
3- ត្រូវការក្មែលពីស្បែក ក្មែលជាមុន និងស្បែកជាមុន ផ្លាស់ប្តូរក្នុងការធ្វើការផ្ដល់ស្បែកដោយសំដី 
4- ត្រូវការក្មែលពីស្អាត  
5- ត្រូវការក្មែលពីស្អាត ដោយសំដី  

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សរុបសរុប 113.182 ម³

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2. ការបង្កើតសំបូរសិក្សាដោយសារដំណើរការ
3. ការបង្កើតសំបូរសិក្សានិងសិក្សាធ្លែងដែលមានភាពយន្តសំបូរសិក្សាដោយសារសំបូរសិក្សាជូនក្នុងសមាស្រ្តសម្រាប់ការគាំទ្រការស្វែងរកទិន្នន័យ
4. ការសម្រាប់ទំនើប
5. ការផ្តល់សំបូរសិក្សានិងសិក្សាធ្លែងដែលមានភាពយន្តសំបូរសិក្សាជូនក្នុងសមាស្រ្តសម្រាប់ការគាំទ្រការស្វែងរកទិន្នន័យ
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អច្ចិលសំបួល = 198.942 m³

តម្រង់សំបួល: 198.942 m³

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2. ជួយរៀបចំការបញ្ចូលទំនិញ
3. ជួយរៀបចំការបញ្ចូលទំនិញ
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5. គេបង្កើតរំបេពល ដោយ ការស្វែងរកទុកដារ តាមរយៈគុណភាពសាស្រមួយ ។
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2- ការប្រកសារច្រើនរបស់សមត្ថភាព
3- ការប្រកសាររបស់សមត្ថភាពបានបានបញ្ចប់ក្នុងការសមត្ថភាពមួយប៉េបាន
4- តូចតូចបំផុត
5- ការប្រកសារសមត្ថភាពបានបញ្ចប់ក្នុងការសមត្ថភាព
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ចំណាត់ថ្នាក់ 105.481.303

សម្រាប់ក្រុម
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3- ចុងក្រោយចុងក្រោយមិនសម្រាប់ក្រុមសម្រាប់ក្រុមបន្ទាន់សម្រាប់ក្រុម
4- ចុងក្រោយចុងក្រោយ 5- សម្រាប់ក្រុមសម្រាប់ក្រុមបន្ទាន់សម្រាប់ក្រុម
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গ্যাসব্যাপার 10.5% M3

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2. তাপমাত্রা সমতীয় এবং বিপরীত হয়।
3. রেক্সিফ্লেক্টরি এবং কৌশল সমর্থিতে নিয়ন্ত্রণ অনুসরন করা হয়।
4. প্রাক্তন নিয়ন্ত্রণ।
5. তাপমাত্রা সমতীয় এবং বিপরীত হয়।
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4- កំពុងផ្សេងៗបន្ទាប់  
5- កំពុងប្រឈមសមារៈដែលមានក្រុងដែលមិនមានក្រុង
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បញ្ហារយៈការចិញ្ចូល
1. មិនស្ថិតនៅក្នុងប្រការយ៉ាងយ៉ាង
2. មិនស្ថិតនៅក្នុងប្រគណិតយ៉ាងយ៉ាង
3. មិនស្ថិតនៅក្នុងប្រគណិតយ៉ាងយ៉ាង
4. មិនស្ថិតនៅក្នុងប្រគណិតយ៉ាងយ៉ាង
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ច៏ណី 69.865 m³

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2- គឺចូលទិញប្រែក្រាកេក្មីទីផ្សារអក្សរ។
3- គឺចូលទិញអាកាស ដោយមកពីអក្សររូបីដែលគ្រោះថ្នាក់ទីផ្សារអក្សរក្រាកេក្មី។
4- គឺជាអាកាសក្រាកេក្មី
5- គឺជាអាកាសក្រាកេក្មីពីអក្សររូបី។
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ការពារ សុខភាព ៖ 553.59.13

អតិថិជន:
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2- ការពារអារម្មណ៍ ស្រួលបំរុលអារម្មណ៍
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4- ប្រឈមដោយពីរទីប្រេបូរ
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ចំនួនៈ 68.510 m3

ដូរឈាមម៉ោង 1.5

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1. បញ្ហាត្៍ក្រុងអប្រធាន
2. បញ្ហាត្៍ក្រុងអ្នកប្រឈរ
3. បញ្ហាត្៍ក្រុងដែលក្រុងអាចបញ្ហាត្៍អំីភាពនៃប្រដាប់ឆ្លងកាត់ទ្រឹងចិញ្ចេញ
4. បញ្ហាត្៍សំខាន់មួយ
5. បញ្ហាត្៍អាកាសធាតុមួយ ក្រុងអាចបញ្ហាត្៍អំីភាពនៃប្រដាប់ឆ្លងកាត់ទ្រឹងចិញ្ចេញ
ទិន្នន័យការទូរសព្ទក្នុងម៉ាស៊ីនកក្រកុងកោកែ ពីថ្ងៃទី 5 ខែមាតិកា ឆ្នាំ 2012

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បញ្ហាអស់ស្រាយ:
1- បន្តុំសិក្ខារសារព័ត៌មានខាងក្រោម
2- បន្តុំសិក្ខារសារព័ត៌មានខាងក្រោម
3- បន្តុំសិក្ខារសារព័ត៌មានខាងក្រោម
4- បន្តុំសិក្ខារសារព័ត៌មាន
5- បន្តុំសិក្ខារសារព័ត៌មានខាងក្រោម
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ប្រព័ន្ធទ្វារេ ១.២.៣.៤.៦ ទីតាំង

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3. ការបញ្ជាក់សែនក្នុងមេរាជាបរ
4. ការបញ្ជាក់សែនក្នុងមេរាជាបរ
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ចំនូណន័យ: 23.629 m³

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2. ការមិនបញ្ជាក់សេវាកម្មការងារ
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2. ប្រភេទជួនខ្ពស់ ដែលប្រឈម
3. ប្រភេទស៊ីត្រង់ ដែលភ្លាហើយ ត្រង់ប្រភេទស៊ីជួនខ្ពស់ ដែលប្រឈម
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2. ជាមួយនឹងការពិតកំពុង ទំនិញ ទូទៅ ទូទាត់ សមាសធាតុ រំដៃបុរះ ចាប់ផ្តើម បញ្ចប់ ។  
3. ប្រយុទ្ធសិទ្ធិ និង ការពិតកំពុង ទំនិញ ទូទៅ ទូទាត់ សមាសធាតុ រំដៃបុរះ ចាប់ផ្តើម បញ្ចប់ ។  
4. ប្រយុទ្ធសិទ្ធិ និង ការពិតកំពុង ទំនិញ ទូទៅ ទូទាត់ សមាសធាតុ រំដៃបុរះ ចាប់ផ្តើម បញ្ចប់ ។  
5. ប្រយុទ្ធសិទ្ធិ និង ការពិតកំពុង ទំនិញ ទូទៅ ទូទាត់ សមាសធាតុ រំដៃបុរះ ចាប់ផ្តើម បញ្ចប់ ។  

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1. ការស្នើសុំដើម្បីរកឃ្លាបុគ្គលដែលមានការងារក្នុងកន្លែងពេលប្រកួតដើម្បីសន្និដ្ឋានការស្វែងរកកនុងក្នុងសមត្ថភាពពេលឲ្យប្រកួតដើម្បីប្រកួតដើម្បីសកម្តែងនូវប្រកួតដើម្បីសកម្តែងនូវប្រកួតដើម្បីសកម្តែងនូវប្រកួតដើម្បីសកម្តែង
2. ការប្រកួតដើម្បីរកឃ្លាបុគ្គលដែលមានការងារក្នុងកន្លែងពេលប្រកួតដើម្បីសន្និដ្ឋានការស្វែងរកកនុងក្នុងសមត្ថភាពពេលឲ្យប្រកួតដើម្បីសកម្តែង
3. ការស្នើសុំដើម្បីរកឃ្លាបុគ្គលដែលមានការងារក្នុងកន្លែងពេលប្រកួតដើម្បីសន្និដ្ឋានការស្វែងរកកនុងក្នុងសមត្ថភាពពេលឲ្យប្រកួតដើម្បីសកម្តែង
4. ការស្នើសុំដើម្បីរកឃ្លាបុគ្គលដែលមានការងារក្នុងកន្លែងពេលប្រកួតដើម្បីសន្និដ្ឋានការស្វែងរកកនុងក្នុងសមត្ថភាពពេលឲ្យប្រកួតដើម្បីសកម្តែង
5. ការស្នើសុំដើម្បីរកឃ្លាបុគ្គលដែលមានការងារក្នុងកន្លែងពេលប្រកួតដើម្បីសន្និដ្ឋានការស្វែងរកកនុងក្នុងសមត្ថភាពពេលឲ្យប្រកួតដើម្បីសកម្តែង

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ทั้งหมดรวม: 68,466 m³

สังเขป:
1. แต่ละหมายเลขเป็นนับต่อไปนี้
2. แต่ละหมายเลขมีหน่วยเป็นมิลลิเมตร
3. แต่ละหมายเลขจะมีขนาดตัวอย่างจากเคเบิลที่มีอัตราการเปลี่ยนแปลงของอุณหภูมิ
4. แต่ละหมายเลขต้องมีอย่างน้อย 3 ตัว
5. แต่ละหมายเลข 20 ตัวจะมีได้ ไม่เกิน 5 ตัว
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សំប្លាហារ:
1. ការសម្រេចព័ត៌មាន និង មើលតែម
2. រូបភាពអនុវត្តន៍ នៅក្នុងថ្នាក់
3. ការសម្រេចអាគេអេ និង យោគ នៅក្នុងថ្នាក់សម្រាប់បង្កើតតម្រូវការនៃសម្រាប់អារក់សម្រាប់
4. ការសម្រេចអាគេអេ
5. រូបភាពអនុវត្តន៍ នៅក្នុងថ្នាក់សម្រាប់បង្កើតតម្រូវការអារក់សម្រាប់
Lesson 2.6.1.3
Selecting trees to be cut and seed trees

Objectives

At the end of the lesson, the participants should be able to:
1. Understand the rules for selecting trees to be cut and seed trees
2. Do the actual tree selection on the annual operations plan map

Methods

Discussion, demonstration, and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Annual operations plan map (from Lesson 2.6.1.2)
Sample pre-harvest inventory form 1 (from Lesson 2.6.1.2)

Time

Three hours

Process

1. Review and discuss with the participants the rules for selecting trees to be cut and seed trees. These rules have been discussed in a previous training course (see Lesson 2.4.1.7). Using the annual operations plan map, demonstrate a few times how trees are selected to cutting or left as seed trees.

2. Ask the participants to work with their own group. Ask them to select trees to be cut and seed trees for the entire area. Ask them to use the following legend:

   □ Living tree to be cut
   △ Dying tree to be cut
   □□ Dead tree to be recovered
   X Seed tree

The trees selected to be cut must be of the species currently in demand in the timber market. Dying trees of some species, which produce large butt and center rots, should not be cut. Similarly, dead trees only of durable species can be recovered.
3. Ask each group to make a list of the trees to be cut including the tree number, species, dbh, height, quality class, and volume. Ask them to tabulate the volume and number of trees by species.

4. End the lesson by discussing means to ensure sustainability of the management.

Learning notes

Ensuring sustainability

To ensure that the timber harvest is sustainable:

1. The rules on selecting trees to be cut or left as seed trees, as specified in the village forest management system, must be followed.

2. Species which are scarce in the area should not be cut.

3. The total estimated volume to be cut in each sub-compartment should not exceed the maximum allowed. A tabulation of the maximum allowed cut and the total volume of trees harvested in each sub-compartment should be written on the annual operations map, as well as in the annual village forestry operations plan itself.

4. The number of trees to be cut of each species should not exceed 20% of the total number of large trees (i.e. with dbh of at least 50 cm) of that species.
Lesson 2.6.1.4
Laying out access tracks

Objectives

At the end of the lesson, the participants should be able to lay out the access road tracks on the planning map.

Methods

Discussion, demonstration, and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Strip of paper with distances to the nearest 10 m scaled at 1000.
Annual operations plan map with the trees already selected (from Lesson 2.6.1.3)

Time

Three hours

Process

1. Ask the participants to work with their own group. Work with each group and demonstrate how to lay out the access tracks connecting trees to be cut with an existing road or laid-out track.

2. Ask each group to complete laying out the access tracks on the annual operations plan map, making sure that the access track network reaches all places where timber harvesting will be done, allowing for certain amount of winching of logs along the ground (e.g. maximum of 20 m).
Lesson 2.6.1.5
Specifying other annual operations

Objectives

At the end of the lesson, the participants should be able to specify other annual operations, e.g.:

1. Schedule by month the conduct of tree marking, vine cutting, and post-harvest assessment

2. Incorporate provisions for ensuring regeneration, timber stand improvement, collection of non-timber forest products, grazing, forest protection, and conservation of soil, water, and biodiversity

3. Estimate the work force and financial requirements of the annual operations

Methods

Discussion and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Annual operations plan map

Time

One hour

Process

1. List with the participants the different operations normally done on an annual basis. Discuss with them the timing of these operations. Ask each group to prepare a schedule of operations indicating the months when each of the operations are done.

2. Review with the participants the provisions for ensuring regeneration, timber stand improvement, collection of non-timber forest products, grazing, forest protection, and conservation of soil, water, and biodiversity, which were earlier discussed in the different lessons of Module 2.4.1.

3. Ask the participants to estimate the workforce requirement for the annual operations, using the work norms used in Lesson 2.4.1.13 as basis. Ask them also to estimate the costs of the annual operations using the data used in Lesson 2.4.1.14.
Module 2.6.2
Writing the annual operations plan

Introduction

This module is aimed at strengthening the technical capability of the forestry staff to train and assist the villagers in writing their annual operations plan. Then they learn the process of getting the plan approved.

Contents

The module consists of two lessons:

**Lesson 2.6.2.1 Writing the annual operations plan.** In this lesson, the participants learn how to write each section of the annual operations plan.

**Lesson 2.6.2.2 Approving the annual operations plan.** The participants learn the process of getting the annual operations plan approved by the VFA and the authorities.
Lesson 2.6.2.1
Writing the annual operations plan

Objectives

At the end of the lesson, the participants should be able to train and assist the village planning teams in writing their annual village forestry operations plan.

Methods

Discussion, demonstration, and supervised group work

Materials

Large brown sheets of paper, marker, and masking tape
Maps, tables, and other information produced in Module 2.6.1
Model annual village forestry operations plan (see attached handout)
Writing tools and materials

Time

Six hours

Process

1. Go over all sections of the model annual village forestry operations plan with the participants.

2. Ask each group to prepare an annual village forestry operations plan following the model and using the materials produced in Module 2.6.1.

Learning notes

Writing the annual village forestry operations plan

The annual village forestry operations plan has by definition a one-year planning horizon. It should include at the minimum the following sections:
Introduction
Village Forest Management Unit and its management plan
Annual Village Forestry Operations Plan
Implementing the Annual Village Forestry Operations Plan
Benefits and impacts

The introduction section should contain:

- **Background.** This tells about the village – its location, population, and when it joined the village forestry programme. It also gives the relation between the village forest management plan and the annual operations plan.

- **Plan objectives.** This presents the objectives of the annual operations plan.
• **Methodologies.** This briefly tells about how the plan was prepared.

The section on the VFMU and its management plan should relate the annual plan to the long-term forest management plan. It should contain:

• **Village forest management unit.** This gives the map of the village forest management area, the present and planned village land uses, and the products and services that the forests are expected to provide.

• **Forest resources.** This describes the forest resources in the village – area by forest type and summary of the inventory of the entire forest resources and the pre-harvest inventory covering the high forest to be harvested during the year.

• **Village forest management plan.** This briefly presents the ten-year village forest management plan, including the timber harvesting cycle, the estimated amount of the timber harvest and planned uses of the timber harvest.

The section on the annual plan itself should describe the planned activities for the coming year. It should contain:

• **Access infrastructure.** This shows what access roads and trails will be used for the year’s operations, e.g. length of old access roads and trails to be re-opened and length of new access roads and trails to be cleared.

• **Timber harvesting.** This describes the timber harvesting to be done during the year – how the maximum allowable timber harvest for the year was calculated for each sub-compartment; how the trees were selected to be cut or left to regenerate the area; what guidelines are to be followed during timber harvesting; and how much and in what month will timber be harvested and sold.

• **Harvesting of non-timber forest products.** This gives the intention of the VFA concerning the harvesting of non-timber forest products.

• **Post-harvest assessment.** This tells how many hectares and when post-harvest assessment will be done.

• **Regenerating and improving the forest.** This tells how the forest will be regenerated and improved after the year’s harvest. In Dong Sithouane and Dong Phousoi, the forest will be regenerated naturally, i.e. by means of seed trees (at least 10 seed trees for every tree cut). There will be no need for artificial regeneration, i.e. planting seedlings. Vines will be cut some time (preferably at least a year) before actual harvesting to minimize damage to the residual stand during timber harvesting and for safety reasons.

• **Forest protection.** This shows the forest protection activities planned for the year.
The section on implementing the annual plan should contain:

- **Village forestry association.** This shows how the VFA is organized to implement the different activities.

- **Contractors.** This shows what activities will be contracted to other parties.

- **Schedule of operations.** This summarizes the activities planned and in what month they will be done.

- **Resources to implement the plan.** This gives an estimate of how much human resources and financing will be needed to implement the plan, and also how the financing will be found.

The section on benefits and impacts should contain:

- **Timber sales, royalties and benefits.** This shows how much timber will be sold and how timber revenues will be shared as royalties to the government and benefits to the VFA.

- **Impact on the forest stand.** This describes what are the possible impacts of the year’s operations on the residual forest stand.

- **Sustainability of forest management.** This tells whether the forest management will be sustainable over time, or not.
Introduction

1.1 Background

Ban ______ is located in the vicinity of Dong Sithouane in the District of _____ in the Province of Savannakhet. Map 1 shows the location of the village. Ban ______ has a population of ____ , consisting of ____ males and ____ females. There are ____ families in ____ households living in the village. The village joined the village forestry programme in 1996.

A Village Forest Management Plan for Ban ______ has been submitted and approved by PAFO in Savannakhet. This report presents the Annual Operations Plan to implement that part of the management plan which falls in the year 1998-1999. It was prepared by the ______ Village Forestry Association.

1.2 Plan objectives

The general objective of the Annual Operations Plan is to show how the Village Forest Management Plan will be implemented in the year 1998-99. Specifically, it will show:

• The forest resources of Ban ______
• What products and services these forest resources can provide to the residents of Ban ______ and to the rest of the country in the year 1998-99
• How the products and services will be provided during the year
• The resources needed and the benefits from the year’s operations

1.3 Methodologies

The following summarize the methodologies used in preparing this plan:

• The management targets are those given in the Village Forest Management Plan. Details and necessary modifications were introduced to ensure that the targets are realistic and attainable for the planning year. The modifications are not substantial so the Village Forest Management Plan remains valid.

• A pre-harvest inventory was conducted over the area assigned for the 1998-99 operations by village teams with training and assistance provided by PAFO and DAFO.

• The village planning team prepared the different parts of the Annual Operations Plan, including the projected benefits and impacts. The details of these parts were discussed with and approved by the village assembly. Government forestry staff provided training and support to the villagers in the planning process.
2.0 Village Forest Management Unit and the management plan

2.1 Village Forest Management Unit

Map 2 shows the Village Forest Management Unit. The land uses included are those that are existing in 1998 and those planned for the next ten years (1998-2008). These are summarized in Table 1.

<table>
<thead>
<tr>
<th>Land uses</th>
<th>Area in 1998 (ha)</th>
<th>Area in 2008 (ha)</th>
</tr>
</thead>
</table>

The Village Forest Management Unit will provide:

**Products**
- Timber for commercial use
- Timber for the use of village households and other village infrastructures
- Non-timber forest products (list them)

**Services**
- Grazing places for livestock of the village households
- Protection of the water resources of the village
- Places of worship and enjoyment of nature
- Enhancement of a healthy natural environment in the village
- Other services (list them, if any)

2.2 Forest resources

Several forest types occur in the Village Forest Management Unit. These are as follows:
- High forest covering _____ ha
- Good dry dipterocarp forests covering _____ ha
- Poor dry dipterocarp forests covering _____ ha
- Other forest types (list together with its area of coverage)

Table 2 summarizes the information about these forests and those compartments designated for management operations in 1998-99.
2.3 Village Forest Management Plan

Timber harvest calculations are provided in the Village Forest Management Plan on the basis of a harvesting cycle of ____ years. The maximum annual allowable timber harvest amounts to ______ cubic metres of trees to be sold in the timber market and ______ cubic metres of trees to be used by the village for housing and other infrastructure. Commercial timber will come mainly from the high forest, while timber for village consumption will come entirely from dry dipterocarp forests. Rules for selecting trees to be harvested or left to regenerate the area are included in the plan. These rules were used in selecting the trees for this year’s operations.

No physical targets have been set for the collection of non-timber forest products, but there are already village rules governing this, which have been included in the Village Forest Management Plan.

Aspects of the Village Forest Management Plan, which are relevant for the operations in 1998-99, are explained in Section 3.

3.0 Implementing the Village Forest Management Plan for the year 1998-99

3.1 Access infrastructure

____ kilometres of new access roads will be built by manual clearing of small trees and other obstruction over a 3m wide path. ____ kilometres of existing access roads will be improved. Workers from the village will provide the labour for the work. Map 3 (map of the annual operations plan) shows the location of these access roads. Planned progress of work is shown in Table 3.
### Table 3 – Access roads

<table>
<thead>
<tr>
<th>Month</th>
<th>Existing access roads to be improved (kilometres)</th>
<th>New access roads to be built (kilometres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>October</td>
<td></td>
<td></td>
</tr>
<tr>
<td>November</td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
</tr>
<tr>
<td>January</td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
</tr>
<tr>
<td>March</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 3.2 Timber harvesting

Figure 3 (map of the annual operations plan) shows the timber harvesting plan. Trees were selected for harvesting following these rules:

- Commercial timber harvesting will be done only in sections of compartments, where:
  - For the high forest, the bole volume is at least 150 m³/ha, or if only between 120-150 m³/ha the regeneration count is adequate (see Section 3.5 concerning regeneration).
  - For good dry dipterocarp forests, the bole volume is at least 100 m³/ha.
  - There will be at least 10 large trees left as seed trees.

- Harvesting will concentrate on the more abundant species among the valuable species or on abundant species with commercial value. Species with patchy or scattered distribution will not be harvested.

- The maximum volume that will be removed depends on the average volume/ha of the different sections of the compartment. As a general principle, the maximum will be about 6-10% for the high forest and 3-5% for the dry dipterocarp forest, e.g.

<table>
<thead>
<tr>
<th>Volume (m³/ha)</th>
<th>Maximum for the high forest</th>
<th>Maximum for the dry dipterocarp</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-120</td>
<td>no harvesting</td>
<td>4 or 1 tree/2 ha</td>
</tr>
<tr>
<td>120-150</td>
<td>7 or 1 tree/ha</td>
<td>5 or 1 tree/ha</td>
</tr>
<tr>
<td>150-200</td>
<td>10 or 1 big tree/ha</td>
<td>7 or 1 tree/ha</td>
</tr>
<tr>
<td>200-250</td>
<td>16 or 2 trees/ha</td>
<td>8 or 1 tree/ha</td>
</tr>
</tbody>
</table>

- Removal from a clump of trees will be preferred over removal of trees occurring singly. If there are clumps of trees of the same species, one or two trees can be removed from the clump. If there are clumps of trees of different species, one or two trees can be removed from the clump provided there are enough of the species in the compartment.

- Solitary, good quality trees of the major commercial species will not be cut.

- The opening created in the main canopy will not be more than 20m for the high forest.

- Trees within 30 m from a stream will not be cut.
• Trees used for resin collection will be cut only with the permission of and compensation provided to the resin collector.

The ______ Village Forestry Association will mobilize trained tree selectors to select the trees to be cut following the timber harvesting plan and the above conditions. Contractors will be hired to harvest and transport the selected trees. Since the trees to be harvested are scattered over the area, tree selection, felling, and transport of the resulting logs to the second landing will be done by the same team as a single operation. Timber sales by auction will be done in the second landing under the supervision of PAFO.

The ___ Village Forestry Association will supervise the timber harvest to ensure that the trees are selected for harvesting according to the tree harvesting plan, to ensure that good timber is not wasted by too high stumps or wasteful log preparation, and to minimize damage to the seed trees and existing tree crops, such as by using directional felling. Planned progress of work is shown in Table 4.

Not included in Table 4 is the timber that will be harvested by villagers for housing or village infrastructure. However, these will be monitored by the ______ Village Forestry Association to ensure that the maximum annual allowable harvest of ____ cubic metres is not exceeded, the quantity harvested is appropriate to the need, and that the timber is harvested only in the designated dry dipterocarp forest compartments.

<table>
<thead>
<tr>
<th>Table 4 – Timber harvesting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>January</td>
</tr>
<tr>
<td>February</td>
</tr>
<tr>
<td>March</td>
</tr>
<tr>
<td>April</td>
</tr>
<tr>
<td>May</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

3.3 Harvesting of non-timber forest products

The ______ Village Forestry Association will monitor the harvesting of non-timber forest products and provide a report to DAFO. It will also conduct extension work in the village to promote proper and non-wasteful extraction of the products and conservation of the resource base.

3.4 Post-harvest assessment

Post-harvest assessment covering the ___ ha of forest management operations in 1998-99 will be done in May 1999 to further check that trees were harvested according to the tree harvesting plan and seed trees were not cut. Assessment of regeneration will be done only after four years have elapsed since harvesting, so none will be done during the year.

3.5 Regenerating and improving the forest

Regeneration of the forest after harvest will be done by natural means. A minimum of 10 seed trees per hectare will be identified in the annual operations map (Figure 3) and
marked in the field. Seed trees will be marked with 2 dots on opposite sides of the stem 1.3 m from the ground and one dot below cutting height.

No trees will be selected for harvesting in sections of a compartment with less than 10 large trees, i.e. >50 cm DBH. Furthermore, no trees will be selected for harvesting in sections where the regeneration is poor based on the regeneration survey done during the pre-harvest inventory, i.e. sections which do not satisfy the following conditions:

- With at least 180 saplings/ha of the valuable species, or
- With at least 1800 saplings/ha of other commercial species, or
- With at least 120 saplings/ha of the valuable species and at least 1200 saplings/ha of other commercial species.

The seed trees are expected to regenerate the openings created during and after the harvest. Openings created during timber harvesting are expected to be small, i.e. not more than 20 m in diameter, since only one or two trees will be harvested per hectare. It is also expected that enrichment planting of seedlings raised in nurseries will not be required.

Vines around trees expected to be harvested will be cut during the same field operation as the marking of seed trees. Planned progress of work is shown in Table 5.

Table 5 – Regeneration and forest improvement activities

<table>
<thead>
<tr>
<th>Month</th>
<th>Marking of seed trees (ha)</th>
<th>Vine cutting (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>October</td>
<td></td>
<td></td>
</tr>
<tr>
<td>November</td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
</tr>
<tr>
<td>January</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.6 Forest protection

The following forest protection activities will be done.

- Regular monitoring of the forest will be done to check any illegal cutting of trees.

- The Village Land-use Plan will be implemented emphasizing the prevention of unplanned conversion of forests to farms or any other land uses. Implementation of the Village Land-use Plan will also result in the protection of the water resources of the village, since forests will not be conserved and land management practices will protect against soil erosion and silting of streams.

- Fire prevention will be discussed in village assembly meetings especially just before and during the dry season. It will be emphasized that fire destroys the forest, which is the source of income and many products, mars the beauty of the landscape, and pollutes the air.

- Village teams will be organized and trained to control fires when they do occur.
• Extension work will be done to promote proper livestock grazing practices, e.g. avoiding the use of fire that will destroy tree regeneration.

Planned progress of work is shown in Table 6.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring of illegal cutting of trees</td>
<td>Whole year</td>
</tr>
<tr>
<td>Monitoring of unplanned conversion of land</td>
<td>Whole year</td>
</tr>
<tr>
<td>Fire prevention meetings with the village assembly</td>
<td>January to March</td>
</tr>
<tr>
<td>Monitoring of forest fires</td>
<td>January to May</td>
</tr>
</tbody>
</table>

4.0 Implementing the Annual Operations Plan

4.1 Village Forestry Association

The ________ Village Forestry Association will be the implementing body of the Village Forest Management Plan, and hence this Annual Operations Plan. The organization has ____ members, who are available for work in the different village forestry activities. About ___ of the members have regularly attended training activities conducted by the government forestry staff. Figure 4 shows its the organizational chart, including the name of its officers.

Figure 1 – Organizational chart of the ______ Village Forestry Association

4.2 Contractors

Logging contractors will be hired to conduct felling, log preparation, log extraction, and log transport operations, but members of the ________ Village Forestry Association will do track clearing, tree selection, and the other activities. Staff of the logging contractors will be briefed about the timber harvesting operations and how they are to be properly carried out. An especially trained member of the ______ Village Forestry Association will do selection of trees to be cut. He or his alternate will accompany the logging contractor in the forest during the entire logging operations to ensure that the logging operations are properly carried out.

Logging contractors who will possibly be hired by the organization include the following:

Put the names of the contractors here.
Etc.
4.3 Schedule of operations

Figure 2 shows the schedule of operations to implement the plan.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2 – Schedule of operations

4.4 Resources to implement the plan

Table 7 shows the number of man-days and the amount of money required in doing the activities. The table also shows how the financial requirements will be met.

<table>
<thead>
<tr>
<th>Table 7 – Manpower and financing needed to implement the plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>October</td>
</tr>
<tr>
<td>November</td>
</tr>
<tr>
<td>December</td>
</tr>
<tr>
<td>January</td>
</tr>
<tr>
<td>February</td>
</tr>
<tr>
<td>March</td>
</tr>
<tr>
<td>April</td>
</tr>
<tr>
<td>May</td>
</tr>
</tbody>
</table>

5.0 Benefits and other impacts of the annual operations

5.1 Timber sales and royalties

Table 8 shows the projected timber sales, net revenues, royalties to be paid to the government, and the benefits to the _____ Village Forestry Association.

<table>
<thead>
<tr>
<th>Table 8 – Projected timber sales, net revenues, royalties, and benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Timber production</td>
</tr>
<tr>
<td>Species</td>
</tr>
<tr>
<td>Sub-total</td>
</tr>
<tr>
<td>Costs</td>
</tr>
<tr>
<td>Cost</td>
</tr>
<tr>
<td>Sub-total</td>
</tr>
<tr>
<td>Net revenue</td>
</tr>
<tr>
<td>Share of government</td>
</tr>
<tr>
<td>Share of VFA</td>
</tr>
</tbody>
</table>
5.2 Other benefits and impacts

In addition to timber production and the income that the organization derives from it, there are other benefits and impacts from forest management as follows:

List them here.

Maps (to be attached)

Map 1 – Location map of _________________
Map 2 – Village forest management unit of ______________________
Map 3 – Annual operations plan of ______________________
Lesson 2.6.2.2
Approving the annual operations plan

Objectives

At the end of the lesson, the participants should be able to explain the process of approving the annual village forestry operations plan.

Methods

Discussion

Materials

Large brown sheets of paper, marker, and masking tape
Handout on flowchart for securing the approval of a village forestry annual operation plan

Time

Thirty minutes

Process

1. Discuss with the participants the process of approving the annual village forestry operations plan. Use the attached flowchart and the following guide questions:

2. Who will approve the plan at the village level? At the district level? At the provincial level?

3. How should the planning team discuss the plan with and secure the approval of the village assembly?

4. What form should the plan take so that it will be endorsed by the district and approved at the province?
The VFA Chairperson sends 5 copies of the AOP, with a cover letter, to PAFO through DAFO

DAFO receives the plans and forwards it to its Forestry Unit for review

DAFO Forestry Unit reviews the plan.

No

Plan complete?

Yes

Head of DAFO forwards the plan to PAFO for approval

PAFO receives the plan and forwards it to its Forestry Section (Forest Management Unit) for review

PAFO Forestry Section (Forest Management Unit) reviews the plan

No

Plan correct?

Yes

PAFO Director approves the plan and sends copies to:
1. VFA
2. DAFO
3. DOF

A copy of the plan is kept at PAFO

Village Forestry Association

DAFO returns the plan to the VFA for revision

PAFO returns the plans to DAFO for revision

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Course 2.7
Pre-harvest operations

Introduction

The course is aimed at developing the capability of the forestry staff to train and assist the village work teams in preparing for the annual timber harvest. The participants learn how request for a logging quota, conduct timber sales, prepare the cutting areas and the second landings, secure the logging permit, organize logging teams, and contract out parts of the logging operations if needed.

Contents

This course consists of two modules:

**Module 2.7.1 Requesting for a logging quota and pre-selling timber.** In this module, the participants learn how to request for a logging quota from MAF/DOF and how the selling of timber sales is conducted.

**Module 2.7.2 Re-allocating the logging quota and preparing trees for cutting.** The participants learn how to re-allocate the logging quota among participating VFAs, mark trees, and clear tracks that provide access to the marked trees.
Module 2.7.1
Requesting a logging quota and pre-selling timber

Introduction

This module is aimed at strengthening the technical capability of the forestry staff to train and assist the group of VFAs in requesting a logging quota for them and pre-selling their timber before the start of the logging operations.

Contents

The module consists of three lessons:

Lesson 2.7.1.1 Making a request for a logging quota. In this lesson, the participants learn how to make a request for a logging quota for the group of VFAs.

Lesson 2.7.1.2 Pre-selling timber. The participants learn how to conduct timber sales based on the quota provided by the government and the trees selected for harvesting.

Lesson 2.7.1.3 Timber sales contract. The participants learn how to prepare a timber sales contract between the group of VFAs and the buyers.
Lesson 2.7.1.1
Requesting a logging quota

Objectives

At the end of the lesson, the participants should be able to train and assist the group of VFAs in requesting a logging quota from MAF/DOF through PAFO/DAFO based on the tree list provided in the annual operations plan.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

Thirty minutes

Process

Discuss with the participants the requirements for making a request for a logging quota and the process of securing a logging quota from the government.

Learning notes

The implementing guidelines issued by MAF of the Prime Minister’s Order declaring Dong Sithouane and Dong Phousoi as Special Village Forestry Zone provides that the logging quota of the VFAs shall be based on the allowable cut calculated in the annual operations plan. However, a subsequent Prime Minister’s Order (No. 11) issued in 1999 provides that only the government can sell timber, i.e. the quantities are provided by MAF and prices are negotiated with the Ministry of Finance. In spite of PMO 11, the VFAs in Dong Sithouane and Dong Phousoi are being allowed to secure a logging quota based on their annual operations plan and to conduct timber sales together with a committee organized by PAFO.

PAFO normally submits to MAF/DOF its request for a logging quota for the province at the end of June. The logging quota for the VFAs is based on the tree list provided in the annual operations plans. Therefore the annual operations plans must be completed and submitted by the VFAs to PAFO through DAFO and the Office of the District Chief on time, i.e. in early June before PAFO submits its requests to MAF/DOF. On behalf of all VFAs in the district DAFO should also make a request to PAFO for a logging quota.

MAF/DOF has a committee based at DOF for determining how much logging quota to provide to each province. Based on the findings of the committee, the logging quota requested by the VFAs may be provided without change or reduced.
Lesson 2.7.1.2
Pre-selling timber

Objectives

At the end of the lesson, the participants should be able to understand and explain to the VFAs the timber sales process.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape
Tree list and summary showing the volume of timber available for sale

Time

Two hours

Process

Discuss with the participants the process of pre-selling timber. Ask them what they already know and fill in the gaps with a short lecture.

Learning notes

The timber of the VFAs is pre-sold to buyers before the tree is cut. This is because there is no open market for timber in the Lao PDR so that there is a big risk that some of the timber cut could not be sold, or sold at low prices, particularly if the species is not in demand. Timber sales are conducted as soon as the logging quota has been awarded. The steps to be followed are as follows:

Step 1. Publicity. At the initiative of the timber sales committee or the group of VFAs, as many as possible prospective buyers are informed of the availability of timber for sale. Information is disseminated both by sending letters to the buyers and advertising in newspapers, both in Laos and in neighboring countries such as Thailand and Vietnam. The information should include the name and address of the group of VFAs, available volume of each species, location of sale, transport routes, date of the sale, and instructions on the requirements and process of the sale.

Step 2. Calculating floor prices. Floor prices in $ for each cubic meter of timber of given species and grade delivered to the second landing is calculated by adding the following:

- Royalty for the given species and grade
- Taxes and fees (e.g. tree planting fee)
- Average logging cost and transport cost to the second landing
- Average forest management cost of the VFAs
- Profit margin of the VFAs
Step 3. *Timber sales by closed bidding*. The timber sales committee uses closed bidding as the first option for conducting the sale. Its features are as follows:

- A list of timber by species, quality indication, and location of delivery point (second landing) is provided to the bidders. Instructions on how to obtain the letter of invitation and other documents, the deadline for submitting the bids, and the date, time, and place of opening of the bids are also provided.

- Invitation letters to bidders include the rules for evaluation of bids along with the other bidding documents.

- Closed bidding procedures are followed, i.e. bidders submit closed and sealed bids for evaluation by the committee.

- The bidders quote their own price for the desired volume of the given species, quality class, and location of second landing. Other information are also to be provided by the bidders, such as guarantee of payment, capability to pay a deposit upon signing of the contract, and minimum timber sizes and other specifications.

- In the bid, prices are quoted for timber delivered at the second landing, the actual place of the sale. The buyer is responsible for the cost and arrangement of timber transport out from the second landing.

- The bidder who quotes the highest price for the given species, quality class, and location has the priority to buy the volume desired at the quoted price. The second, third, and so on highest bidders in that order can buy any remaining volume at their quoted price. To be valid, the timber price must be at least as much as the floor price.

- The committee has the right to reject any bid for any valid reason, such as the lack of guarantee of payment.

- Actual timber sales occur after timber of a certain lot size, e.g. 100 cubic meters, is available at the second landing. Timber sales operations consist of timber scaling and grading by PAFO (with representatives of the buyer and VFAs present), invoicing, payment, preparation of timber transport documentation, and timber loading and transport. Full payment is needed before logs can be loaded for transporting out of the second landing.

Step 4. *Timber sales by canvassing interested buyers*. If the bidding fails (e.g. because of low prices, lack of capable buyers), the committee approaches interested buyers and asks them if they are interested to buy the given species and at what prices. Price negotiations are conducted with the prospective buyers and the right of sale for a given species is awarded to the buyer who offers the best prices and other terms (e.g. down payment).

Step 5. *Negotiating and signing the timber sales contract*. After the buyer and timber prices have been approved by the authorities (usually PAFO), contract negotiations between the group of VFAs and the buyer proceed. A successful negotiation culminates with the signing of the timber sales contract. Otherwise, Step 4 is repeated with a
different buyer. Approval of the contract is confirmed by the authorities (usually PAFO). The next lesson is about the timber sales contract.

**Step 6. Payment and management of deposits.** Within a stipulated time period after contract signing the buyer pays to the group of VFAs the required amount of deposits. Then the required deposits for royalties, taxes, and other fees are paid to the finance department of the province by the group of VFAs. The committee may assign a manager of the deposits with the agreement of the group of VFAs. This could happen, for example, if it is inconvenient for the VFAs to transact business at the provincial center on a regular basis. Once timber sales are completed, an accounting and auditing of the use of the deposits and other payments is made and funds that are due to the VFAs are handed over to them.
Lesson 2.7.1.3
Timber sales contract

Objectives

At the end of the lesson, the participants should be able to train and assist the group of VFAs in formulating a timber sales contract with the selected buyers.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape
Sample timber sales contract (see attached handout)
Sample data on volume sold by species (see attached handout)

Time

One hour

Process

1. Discuss with the participants the components and provisions of the timber sales contract, e.g. contracting parties, legal provisions allowing the contract to be made, terms and conditions of the timber sales, responsibilities of each party, etc.

2. Ask the participants to prepare a sample contract by using assumed results of the timber sales and other information. Explain that a separate contract is needed for each buyer.
Handout no. 2.7.1.3.1. Sample timber sales contract

Timber sales contract

1. This timber sales contract is between _________ hereinafter referred to as the buyer and the seller represented by PAFO and the Group of VFAs. The buyer is represented in this contract by ________ and the Group of VFAs by its Chairperson.

2. The buyer agrees to buy and the VFAs agree to deliver to the second landings the following species and volumes with the following allowable variations and specifications and for the following prices:

<table>
<thead>
<tr>
<th>Species</th>
<th>Volume (m³)</th>
<th>Variation (+/- m³)</th>
<th>dia length (cm)</th>
<th>Prices by grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A   B   C   Undergrade</td>
</tr>
</tbody>
</table>

3. The second landings will be in the villages of ____________.

4. The prices include royalty prescribed by the government for each species and grade, logging and transport cost of $____ per cubic meter, and VFA costs of at least $____ per cubic meter to cover the costs of forest management and administration.

5. The buyer agrees to pay other costs such as tree planting fees and any other taxes and fees prescribed by the government. The buyer also agrees to pay the royalty prescribed deducting the amount from the agreed prices and paying the VFAs the logging cost and VFA costs, which in no case should fall below $____ per cubic meter.

6. The buyer agrees to pay within 3 working days after contract signing a deposit of $______ to the government and a down payment of $_______ to cover the mobilization of the logging teams and VFA costs for immediate activities, such as tree marking and access road clearing. The buyer shall pay the balance less a proportionate deduction per cubic meter for the deposit and down payment within ___ working days after receipt of invoices sent by the VFAs with attached official PAFO timber scaling and grading report.

7. Request for timber scaling and grading shall be submitted by the VFAs to PAFO after every ______ cubic meters delivered to the second landings. The buyer and the VFAs shall be informed of the dates of timber scaling and grading at least two working days in advance. If the buyer or the VFAs do not send their representative on the notified dates, the timber scaling and grading reports shall remain valid. Scaling and grading shall be according to government rules, which among others prescribe that sapwood shall be included in diameter measurements.

8. The closing date of the timber sale shall be on _______ after which date the buyer is not obliged to buy and the VFAs are not obliged to deliver any further timber at the second landing.

Signed:

Representative of VFAs

Buyer

Witnesses

Confirmed:

PFO

PAFO
Handout no. 2.7.1.3.2. Sample data on volume sold by species

Sample data on the volume of timber sold by species

<table>
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<tr>
<th>Species</th>
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<th>Buyer 2</th>
<th>Buyer 3</th>
<th>Total</th>
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<td>1000</td>
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<td>Mai khen hin/mai laen</td>
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<td>Mai bak/mai nyang</td>
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<td>Mai si</td>
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</table>

Notes:
1. The buyers were informed that the total logging quota is 7500 cubic meters.
2. Three buyers offered higher prices for the above species than other buyers.
3. The above figures are the maximum that the buyers would like to buy in each species.
Module 2.7.2
Re-allocating the logging quota and preparing trees for cutting

Introduction

This module is aimed at strengthening the technical capability of the forestry staff to train and assist staff in re-allocating the logging quota among the member VFAs of the group of VFAs, and preparing trees for cutting by marking them, cutting vines around their trunk, and preparing access tracks that connect them to the existing road.

Contents

The module consists of four lessons:

**Lesson 2.7.2.1 Re-allocating the logging quota.** In this lesson, the participants learn how to re-allocate the logging quota among the member VFAs of the group of VFAs.

**Lesson 2.7.2.2 Modifying the timber harvesting plan.** The participants learn how to make changes in the timber harvesting plan to accommodate changes in the tree list based on the results of the timber sales and re-allocation the logging quota.

**Lesson 2.7.2.3 Tree marking and vine cutting.** The participants learn how to mark trees to be cut, as well as seed trees, and appreciate the need to cut vines around the trunk of trees marked for cutting.

**Lesson 2.7.2.4 Clearing access tracks.** The participants learn the specifications of access tracks and how to organize the village workforce for clearing access tracks that connect the trees to be cut to the existing road.
Lesson 2.7.2.1
Re-allocating the logging quota

Objectives

At the end of the lesson, the participants should be able to re-allocate the logging quota among the member VFAs of the group of VFAs based on the species sold, the availability of these species in the different village forests, and other considerations.

Methods

Discussion and demonstration

Materials

Large brown sheets of paper, marker, and masking tape
Sample data on the logging quota and volume sold by species (see Lesson 2.7.1.3))
Sample data on the availability of the species in the different village forest management units (see attached handout)

Time

One hour

Process

1. Discuss with the participants the different considerations for re-allocating the logging quota approved by MAF/DOF among the member VFAs of the group of VFAs. Who should decide how the quota be re-allocated?

2. Demonstrate how to re-allocate the quota based on the considerations taken up in the discussion.

Learning notes

Re-allocation of the logging quota

Authorized representatives of VFAs belonging to the group meet together to re-allocate the logging quota among the VFAs. Based on the total quota, the quantity of each species that were included in the timber sales contract(s), and the availability of trees to be cut in each individual VFMU, the logging quota is broken down by volume of each species that each VFA is allowed to cut. See attached handout for an example of re-allocation of the logging quota). Before the re-allocation is considered final, it must be approved by the group.
Sample data on the availability of species in the different village forest management units

<table>
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<th>VFA No.</th>
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<th>khen thong</th>
<th>khen hin/laen</th>
<th>bak</th>
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Course 2.8
Timber harvesting

Introduction

The course is aimed at developing the capability of the forestry staff to train and assist the VFA logging teams in conducting and controlling the timber harvesting operations. Emphasis is placed on controls to ensure the safety of workers, reduce logging damages and wastes, and secure the chain of custody of logs.

Contents

The course consists of three modules:

Module 2.8.1 Preparing for logging - In this module, the participants learn how to secure the logging permit, organize the logging teams, assess preparedness to conduct logging, contract parts of the logging operations if needed, and prepare the second landings and access routes to them.

Module 2.8.2 Felling and log transport - The participants learn how felling, log preparation, and log transport operations are carried out and controlled.

Module 2.8.3 Second landing operations - The participants learn how to scale and secure the logs delivered to the second landing.
Module 2.8.1
Preparing for logging

Introduction

This module is aimed at strengthening the technical capability of the forestry staff to train and assist the village teams to prepare for the logging operations. By this time the trees would have been marked for cutting. Further preparations are needed before logging can start. The logging permit must be obtained; the logging teams must be organized and trained; and the second landings and the access routes to them must be prepared. The capability of the VFA to conduct logging on its own must also be assessed. Those activities that they cannot do have to be contracted out to other parties.

Contents

The module consists of four lessons:

Lesson 2.8.1.1 Obtaining the logging permit. In this lesson, the participants learn how to obtain the logging permit for the group of VFAs.

Lesson 2.8.1.2 Organizing the logging teams. The participants learn how to organize the different logging and second landing teams.

Lesson 2.8.1.3 Assessing preparedness and contracting out parts of the logging operations. The participants learn how to assess the capability of the VFA to conduct logging on its own, and how to contract out logging activities that the VFA cannot do on its own.

Lesson 2.8.1.4 Preparing second landings and access routes to them. The participants learn how to select the second landing sites and prepare them, as well as the routes connecting them to the logging sites.
Lesson 2.8.1.1
Obtaining the logging permit

Objectives

At the end of the lesson, the participants should be able to train and assist the group of VFAs to obtain a logging permit.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

Thirty minutes

Process

Discuss with the participants the requirements for the issuance of a logging permit and the steps to be followed to obtain a logging permit.

Learning notes

Requesting for a logging permit

Before the group of VFAs request a logging permit, they must check with PAFO, the issuing office, to find out what the requirements are, e.g. payment of deposits for royalties and other fees, etc. After the timber sales contract is signed, the buyer would have provided some amount as deposit to the group of VFAs. The amount should be adequate to pay for the required deposits to the government as well as the initial costs of starting and conducting the logging operations up to the time that another payment is made by the buyer.

Issuance of the logging permit

Before PAFO issues a logging permit, all of its conditions are first met. There might be new conditions each year as the result of new administrative orders from MAF/DOF or the Prime Minister’s Office. One of the conditions is that the required deposits must be paid. PAFO may also require the stamping of trees to be cut. The group of VFAs may request that PAFO give an exemption from the practice of tree stamping since each VFA in the group already practices marking of trees to be cut or left as seed trees.
Lesson 2.8.1.2
Organizing the logging teams

Objectives

At the end of the lesson, the participants should be able to train and assist the VFA management to organize logging teams.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

One hour

Process

Discuss with the participants what teams are needed to conduct or control the logging operations. What is the composition of each of the teams? What are the responsibilities of each team member?

Learning notes

The logging teams include the following:

- Logging supervisors, one per VFA, who are responsible for all logging work in their respective VFMUs.
- Felling and log preparation teams each consisting of a feller and his helper, and a guide from each VFA, who will show the location of marked trees and who will later mark the number of the logs. A logging contractor may provide the fellers and helpers for the group of VFA. One team can prepare logs for one to three logging trucks.
- Log transport teams, one per logging truck, consisting of a driver and two to four choker setters. The teams may be organized by the VFA itself, or the group of VFAs may contract out log transport along with felling and log preparation. The number of teams needed depends on the volume to be produced and the number of working days available, having taken into consideration the capacity of the kind of logging trucks that are available for use or hire.
- Two-person scaling teams at two teams per second landing. The teams are provided by the VFAs but are hired by the group of VFAs since they do work for all VFAs that are using the second landing. The team is responsible for painting the log number on both ends of the log, scaling the log, and recording it on the second landing log registry.
Lesson 2.8.1.3
Assessing preparedness and contracting out parts of the logging operations

Objectives

At the end of the lesson, the participants should be able to:
1. Train and assist the VFA management to assess its capability to conduct the logging operations on their own.
2. Train and assist the group of VFAs to contract out activities that the VFAs cannot do on their own.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape
Sample logging contract (see attached handout)

Time

One hour and thirty minutes

Process

List (write down) with the participants the different logging activities. Discuss with them how to survey the resources of the village for conducting these logging activities. List those that the village cannot do on its own. These activities are to be contracted out.
Discuss with the participants who will be the contracting party and who are the possible logging contractors. End the lesson by discussing the terms and conditions of the logging contract that must be prepared.

Learning notes

Assessing the capability of the VFA to conduct logging on its own

Most villages have people who can fell trees using manual tools. If there are enough of these villagers, the VFA of these villages may prefer to hire them to do the felling and log preparation. The village or nearby villages may also have people who own logging trucks. They can be hired to transport logs from the felling site to the second landing. If the VFA prefers to contract out these logging activities, it must notify the group of VFAs well in advance.

Contracting felling and log transport to the second landing

As with timber sales contracting, the contracting of part of the logging operations (usually felling, log preparation, and log transport) is done by the group of VFAs, with the exclusion of VFAs which can do all of the logging operations by themselves. The terms of the logging contract should include the following (see the sample contract):
• The VFA is responsible for overseeing the operations being carried out in its VFMU to ensure that they are carried out properly and timely. The VFA will mark the trees, clear access tracks, and supervise the cutting and trucking operations.

• The contractor is responsible for felling, log preparation, and transport of logs to the second landing, as well as providing instructions regarding road clearing.

• The VFA will assign a logging supervisor who will work daily with the logging crews of the contractor.

• The logging crews of the contractor will follow the instructions of the VFA logging supervisor regarding what trees to cut, stump height, minimizing damage to existing vegetation, maximizing benefit from logs by selecting proper log length, etc.

• The VFA will pay the contractor the agreed price in $/m$^3$ of logs delivered to the second landing. A specified advance payment will be given to the contractor. The balance will be paid after the logs have been officially scaled.

• The contractor will provide the agreed number of logging crews with the agreed set of equipment, and will replace in a timely manner any crew or equipment which do not work properly.

• The logging contractor will deliver the agreed volume of logs to the second landing following the agreed timetable.

**Planning to mobilize the logging operations**

Before the contract is signed, the group of VFAs (preferably with each VFA represented) should meet with the logging contractor to prepare a schedule for mobilizing the logging teams. The schedule includes the sequence and approximate dates of deployment in each VFMU of the logging teams of both the VFAs and the contractor. It must also be agreed that before a single tree is cut, all logging teams will attend a meeting for the purpose of explaining the guidelines for working in the forest, particularly those included in the terms of the logging contract.
Logging contract

This contract is entered to between:

Logging contractor

and

Group of VFAs

Whereas:

1. The VFAs belonging to the group collectively have a quota to harvest ________ cubic meters of logs and are responsible for sustainable forest management in their respective village forest management units.

2. The VFAs have organized themselves as a group for the purpose of jointly conducting the logging operations, the group being represented by the signatories below and attested by the attached signed concurrence of the VFAs.

3. The group lacks the capability to prepare logs in the forest and transport them to the second landing, and is willing to hire the logging contractor.

4. The logging contractor has the capability to prepare logs in the forest and transport them to the second landing, and is willing to work for the group.

Therefore, this logging contract is entered into with the following terms and conditions:

1. The logging contractor is responsible for felling trees marked by the group, preparing logs, and transporting logs to the second landing.

2. The group is responsible for overseeing the entire logging operations to ensure that they are carried out properly and timely. It will provide human resources for marking trees, clearing access tracks and transport routes to the second landing, and supervising the cutting and log transport operations.

3. The logging crews of the logging contractor will follow the instructions of the group’s VFA logging supervisor and logging guide regarding what trees to cut, stump height, minimizing damage to existing vegetation, maximizing benefit from logs by selecting proper log length, etc.

4. The group will pay the logging contractor ___ dollars for each cubic meter of logs delivered to the second landing. The logging contractor will be responsible for paying any tax related to logging and log transport. All payments will be in kips calculated from dollars using the prevailing bank rate. An advance of ________ kips will be provided to the logging contractor for every cutting-trucking crew that is deployed. The logging contractor will bill the VFAs after each ______ cubic meters of logs are delivered to and officially scaled at the second landing.
5. The logging contractor will provide ___ cutting-trucking crews each equipped with a logging truck, two chainsaws, and other related tools, and will replace any crew or equipment that do not work properly.

6. The logging contractor will deliver up to _______ cubic meters of logs to the second landing on or before ____________.

7. This contract is valid from __________ to ____________ and may be terminated by any party with ____ week(s) notice.

8. Any conflicts will be settled amicably between the signing parties and if unavoidable in Lao court(s) at ____________.

9. This contract is written and signed in two original copies, one copy for each signing party.

Signed this _____________ at _____________________.

_______________________________  _______________________________
Logging contractor  Representative of the Group of VFAs

_______________________________  _______________________________
Witness  Witness

Attachment:
Confirmation of each VFA to enter into joint logging as a Group
Lesson 2.8.1.4
Preparing second landings and access routes to them

Objectives

At the end of the lesson, the participants should be able to train and assist the VFA management and work teams in:
1. Selecting the second landings.
2. Preparing the second landings for the logging operations
3. Preparing the access routes connecting the second landings to the logging sites.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape
Logging site map covering the VFMUs and routes leading to the highway

Time

One hour

Process

Discuss with the participants the criteria to be used to select second landing sites. Proceed by discussing who will be responsible in clearing the second landings and preparing the routes connecting them to the logging sites.

Learning notes

Selecting the second landings

Using the logging site map, one or more second landings are selected from a set of alternative sites by the VFAs, which will be using the landing together. The second landings must have the following features:
• Connected by roads to the different logging sites and to the highway.
• Centrally located to minimize the transport distance from the logging sites, but at sites likely to be accepted by the buyers.
• Large enough to accommodate the planned volume of logs.
• Flat terrain to facilitate all second landing operations.

Preparing the second landings

VFAs, which will be using a common second landing should cooperate in preparing it. If the second landing was chosen well, its preparation should only require the clearing of vegetation using manual tools. The VFAs should agree on how the work of cost of clearing would be shared, as well as the timetable for its completion.
Ensuring passability of access routes to the second landing

VFAs using a common route in transporting logs to the second landing should cooperate in ensuring that the route is always passable during the logging season. They should agree on which village is responsible for building and maintaining which section of the route, including the timetable for completing the access route.
Module 2.8.2
Felling and log transport

Introduction

This module is aimed at strengthening the technical capability of the forestry staff to train and assist the VFA logging teams in conducting and controlling felling, log preparation, and log transport operations. The emphasis of the lessons is on the controls rather than on the techniques for conducting them.

Contents

The module consists of three lessons:

Lesson 2.8.2.1 Felling. In this lesson, the participants learn the specifications for conducting felling operations properly.

Lesson 2.8.2.2 Log preparation. The participants learn how logs are prepared from the felled tree to maximize its value.

Lesson 2.8.2.3 Log extraction and transport to the second landing. The participants learn how to secure the logs as they are transported from the felling site to the second landing.
Lesson 2.8.2.1
Felling

Objectives

At the end of the lesson, the participants should be able to understand the different considerations for conducting the felling operation properly.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

Thirty minutes

Process

Discuss with the participants the guidelines for properly conducting the felling operation.

Learning notes

Guidelines for properly conducting felling:

1. Only those trees that have been marked to be cut are felled.

2. The cuts are made to leave stumps that are as low as possible to maximize the recovery of sellable logs.

3. Felling is directed to minimize damage on the crop trees and regeneration, while ensuring the safety of the workers.

4. The VFA and its contractors should endeavor to properly equip their felling crews to ensure the safety and health of the workers. Helmets should be worn by the workers to protect their heads against falling branches and other objects. Gloves help to prevent vibration sickness that is common among workers using vibrating power tools.

5. So that the tree falls in the desired direction, a directional cut is made on the stem before the felling cut is made.

6. The use of wedges is important in many cases to properly direct the fall.
**Lesson 2.8.2.2**

**Log preparation**

**Objectives**

At the end of the lesson, the participants should be able to:
1. Understand the different considerations for preparing logs from a fallen tree.
2. Learn the system for numbering logs in preparation for transport to the second landing.

**Method**

Discussion

**Materials**

Large brown sheets of paper, marker, and masking tape

**Time**

Thirty minutes

**Process**

Discuss with the participants the different considerations for preparing logs from a fallen tree. End the discussion by going into the system for numbering the logs.

**Learning notes**

**Log preparation**

In cross-cutting the tree into logs, the following must be considered:

1. The hauling capacity of the logging truck.
2. The specifications of the buyer concerning the minimum log diameter and log lengths.
3. Leaving the minimum of valuable wood at the felling site. This means that the top diameter should be as small as possible, but satisfying the buyer’s specifications.

**Numbering logs**

A log number is written using a chalk at or near both ends of the log. The number is written as n/m/o/p, where "n" is the number of the VFA, "m" is the number of the strip, "o" is the number of the tree, and "p" is a number 1, 2, or 3 where 1 is used for the first log made from the tree, 2 for the second, etc. By using this numbering system, it is possible to trace a log back to the stump of the tree in the forest.
Lesson 2.8.2.3
Log extraction and transport to the second landing

Objectives

At the end of the lesson, the participants should be able to:

1. Learn the log extraction and transport techniques that are commonly used in the Lao PDR.

2. Learn how to secure the logs as they are transported from the felling site to the first and second landings.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape
Sample log transport slip (see attached handout)

Time

One hour

Process

Discuss with the participants the technique of extracting logs that is commonly used in the Lao PDR. Proceed with the discussion to the control system to ensure that logs are not lost as they go from the felling site to the first and second landings.
Learning notes

**Log extraction**

When extracting logs in most logging sites in Laos, it is possible to avoid the use of skidders (whether animal or mechanical), which is particularly damaging to the soil and standing trees. A logging truck is used as a forwarder, i.e. it is driven at or near the location of the log, which is then skidded and loaded into the truck. Skidding over short distances, say 20 m which is possible with the truck’s winch, reduces damage to regeneration caused during the preparation of access tracks.

**Controls during log transport**

The VFA logging guide prepares a log transport slip in triplicate copies (see sample). The first copy is given to the truck driver for his record. With this copy the logging contractor can keep track of logs that he has delivered, which is important especially if there are other logging contractors operating in the area. The second copy is sent via the truck driver to the second landing supervisor. With this copy proper records of the logs can be made at the second landing. The third copy is given by the logging guide to the logging supervisor. With this copy the logging supervisor can check if the logs were actually delivered to the second landing.
Handout no. 2.8.2.3.1. Sample log transport slip

Logging truck no. _____________________ Date _______________________

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<thead>
<tr>
<th>No.</th>
<th>Log number</th>
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Signatures:

_______________________________  _______________________________

VFA logging guide Logging truck driver

One copy each to VFA logging supervisor, logging contractor, and second landing supervisor.
Module 2.8.3
Second landing operations

Introduction

This module is aimed at strengthening the technical capability of the forestry staff to train and assist the VFA second landing teams in conducting the different second landing operations. The participants learn how to secure the logs that are delivered to the second landing. They also learn how logs are scaled and how the scaling information is used.

Contents

The module consists of three lessons:

Lesson 2.8.3.1 Chain of custody of harvested logs. In this lesson, the participants consolidate their understanding of the chain of custody of harvested logs, ensuring that logs are not lost and can be traced back to the stump in the forest.

Lesson 2.8.3.2 Scaling logs for control purposes. The participants learn how to scale logs unofficially for control purposes.

Lesson 2.8.3.3 Official scaling and grading of logs. The participants learn how logs are officially scaled and graded for the purpose of calculating payments for the logs, royalties, taxes and fees.
Lesson 2.8.3.1
Chain of custody of harvested logs

Objectives

At the end of the lesson, the participants should be able to:
1. Explain the flow of logs from the felling site to the second landing and onwards, and how the logs are secured.
2. Record logs that are delivered to the second landing in a registry.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape
Sample second landing log registry (see attached handout)

Time

One hour

Process

Discuss with the participants the chain of custody of logs as they move from the felling site to the second landing and onwards. Proceed with the discussion on how logs are received and then secured in the second landing.

Learning notes

Chain of log custody

Logs change hands as follows:

1. On the forest floor the VFA is responsible for the logs. The VFA logging guide makes sure that the log numbers are properly and legibly written on both ends of the logs with a timber chalk.

2. When the logs are extracted from the forest floor and transported, the logging contractor is responsible for the logs. The VFA logging guide must provide the logging truck driver with two copies of the log transport slip and deliver the third copy to the VFA logging supervisor.

3. After the logs are unloaded at the second landing, the group of VFA is responsible for the logs. The second landing supervisor receives the logs and records them in a registry. The logs are subsequently scaled and graded, and the buyer is billed for the price of the logs. Once payment is received by the group of VFA, then royalties, taxes, and fees are paid, after which PAFO issues a log transport permit to the buyer.
4. Upon presentation of the log transport permit, the second landing supervisor allows the buyer to take out the logs. The logs become the responsibility of the buyer. By retaining the log numbers which are painted on both ends of the logs, it is possible to trace the logs back to the stump in the forest.

**Receiving, scaling, and recording logs at the second landing**

1. The log transport team unloads the logs at the second landing and hands over a copy of the log transport slip to the second landing supervisor.

2. The scaling team of the group of VFAs paints the log number at both ends of the logs, and then scales the logs. The scaling data is unofficial but necessary for controlling the logging operations.

3. The second landing supervisor ensures that the scaling data are properly recorded in the second landing log registry (see sample registry).

4. After the last load of the day has been unloaded, the second landing supervisor makes a summary of logs delivered to the second landing. The summary shows the volume of logs by VFA and species delivered during the day, as well as a running total by species and VFA. The summary is fed back on a daily basis to the VFA logging supervisors, who are responsible for ensuring that no logs are lost during delivery and that the logging quota of the VFA by species is not exceeded.

**Completion of logging in a VFMU**

Logging in a VFMU is completed when the total volume cut for all species is about the same as the quota of the VFA. An allowance for exceeding the quota of a few, say up to 3 cubic meters is allowed. Once the quota is reached, any marked but still uncut tree is left unfelled. The logging supervisor makes sure that all prepared logs are transported to the second landing.

**Securing the logs at the second landing**

1. Logs are properly stored in the second landing.

2. Each VFA has its own place assigned for storing its logs.

3. Logs are guarded on a 24-hour basis by both forestry staff and second landing teams of the group of VFAs.
Handout no. 2.8.3.1.1. Sample second landing log registry

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<tr>
<th>Serial no.</th>
<th>Log no.</th>
<th>Species</th>
<th>D1</th>
<th>D2</th>
<th>d3</th>
<th>d4</th>
<th>Ave. diameter</th>
<th>Length (m)</th>
<th>Date delivered</th>
<th>Logging truck</th>
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Daily summary for VFA ____________________

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Lesson 2.8.3.2
Scaling of logs for control purposes

Objectives

At the end of the lesson, the participants should be able to scale logs unofficially for control purposes.

Methods

Discussion and demonstration

Materials

Large brown sheets of paper, marker, and masking tape
Log scaling rules (see attached handout)

Time

One hour

Process

Discuss with the participants the rules for scaling logs. If logs are available demonstrate how scaling is actually done. Otherwise, demonstrate using illustrations.

Learning notes

Official scaling information is used to determine whether the logging quota has been reached. However, this information is not available before the logs have been officially scaled. By then it might be too late and overcutting may already have occurred. To prevent this from happening, logs arriving at the second landing are scaled unofficially using the same rules as those used during official scaling.

As mentioned in Lesson 2.8.3.1, the scaling information is then fed back by the second landing supervisor to the logging supervisor. With this information the logging supervisor can stop the cutting of trees once the quota has been reached.
Handout no. 2.8.3.2.1. Log scaling and grading rules

Purpose of the guidelines

The guidelines consist of a set of guidelines for log scaling and another set for log grading. The log scaling guidelines are intended to set a scaling system for the use of VFAs. VFA scalers must be trained to apply these guidelines. The guidelines are based on the DOF scaling and grading rules, which are in turn based on the ASEAN standards for log grading.

The VFA scaler scales all the logs delivered to the second landing. The results are entered in the second landing log registry and used as the basis for checking if the logging volume target for each species and VFA has been reached. While official scaling rules are used, the results cannot be used for royalty and tax calculations and other payments, e.g. to logging contractors.

Official log scaling and grading is done at the second landing by a PAFO-organized log scaling and grading committee, specifically by a PAFO scaler assisted by a DAFO staff in the presence of a representative from the VFA and buyers concerned. The results are used as the basis for invoicing and log transport permit documentation.

VFA scalers are also taught the rudiments of log grading so that they can effectively represent the VFA during the official scaling and grading of the logs at the second landing.

Log scaling guidelines

1. Logs shall be cross-cut at each end by a cut which are perpendicular (90 degrees) to the log axis (with a tolerance for error of not more than 10 degrees), and trimmed flush to the surface to remove buttress flares, branches, and other protuberances.

2. Any cutting on the log must be done before scaling. After scaling no further cutting is permitted.

3. There shall be four diameter measurements: D1=longest diameter at the larger end of the log, D2=diameter measured perpendicular to D1, d3=longest diameter at the smaller end of the log, and d4=diameter measured perpendicular to d1. If the log is highly irregular in its end cross section, more than four measurements may be taken, but the number of measurements must be equal at each end of the log (e.g. 3 measurements at the larger end and 3 at the smaller end).

4. The average log diameter is the average of all diameter measurements, e.g. \[ D = \frac{(D1+D2+d3+d4)}{4} \]. The results are expressed to the nearest lower centimeter (e.g. 57, 82).

5. Log length (L) is measured along a straight line parallel to the log axis, and recorded in meters to the nearest decimal place (i.e. decimeter) (e.g. 4.2, 7.3). A trimming allowance may be excluded but not more than 10 cm. That is, the actual log length must not be more than 10 cm longer than the measured log length.
6. The log volume in cubic meters is calculated as follows: 

\[ V = \frac{D \times D \times L \times 0.7854}{10000} \]

and recorded to the nearest three decimal places (e.g. 3.104, 5.643 cubic meters).

7. The resulting log volume (V) shall be used as the basis for: (a) paying contractor and (b) checking whether the logging volume target for the species has been reached. There shall be no deductions on this volume to account for defects in the log.

**Log grading guidelines**

1. Log grading shall assess the following: (a) log form, (b) log soundness, (c) cross-section defects, and (d) log surface defects, and then, together with log size, relate these to determine the peeling and sawing grades of the log.

2. Log form refers to: (a) circularity of the cross section, (b) taper, (c) bend, and (d) fluting.
   a. Log circularity of the cross section is calculated as the ratio (dratio) expressed in percent of the highest and lowest diameter measurements at the smaller end of the log (e.g. \( d_4/d_3 \times 100\% \)). If dratio is greater than 80% then the log is “circular”, if 70-79% then the log is “nearly circular”, if less than 70% then the log is “irregular”.
   b. Log taper is calculated as the rate at which the diameter decreases per meter of log length (i.e. \( \left[ \frac{(D_1+D_2)/2 – (d_3+d_4)/2}{L} \right] \)) expressed in centimeters per meter of log length). “Low taper” means less than 5 cm taper per meter of log length, “medium taper” means 5-10 cm taper per meter, and “high taper” means more than 10 cm taper per meter.
   c. Not more than one bend is permitted per log. Bend is determined by the ratio of the deviation of the log center from the central axis and the average diameter, expressed as a percentage (i.e. \( \text{bend ratio} = \frac{\text{deviation}}{D} \times 100\% \)). “Small bend” means a bend ratio of less than 10%, “medium bend” means 10-20%, and “severe bend” means more than 20%.
   d. Fluting is determined by the ratio of the deepest penetration of a depression in the log surface and the average diameter, expressed as a percentage (i.e. \( \text{flute ratio} = \frac{\text{depression depth}}{D} \times 100\% \)). “Shallow flutes” means a flute ratio of less than 15%, “medium flutes” means 15-30%, and “deep flutes” means more than 30%.

3. Log soundness refers to the degree to which the log is free from defects such as brittle heart, butt rot, and other defects located at or near the center of the log’s cross section. Soundness is determined as the ratio, expressed as a percentage, of the soundwood volume (SV) and the log volume (i.e. soundness = \( \frac{SV}{V} \times 100\% \)). Soundwood volume is determined by deducting the volume of the defect (VOLdef) from the log volume. Volume of the defect is found by: 

\[ \text{VOLdef} = \left( \frac{df_1+df_2}{2} \right)^2 \times 0.7854 \times L_f \]

where \( df_1 \) and \( df_2 \) are two estimates of the diameter of the defect, and \( L_f = L/2 \) if the defect is clearly visible only at the larger end of the log, but \( L_f = L \) if the defect can be seen at both ends.

4. Cross-section defects include heart location, shakes (heart, cup, ring), and checks.
   a. Heart location is determined as the ratio, expressed as a fraction, of the deviation of the heart from the geometric center of the log and the average log diameter.
b. Heart shakes are fiber separations (like cracks) near the heart of the log. They are determined only for logs which are 100% sound. The number of heart shakes are counted.

c. Cup shakes are fiber separations along annual growth rings. Cup shakes do not completely encircle the heart. Cup shakes are counted and also assessed as the ratio, expressed as a percentage, of the total arc length and the average log diameter. “Low degree” of cup shake severity means less than 25%, “medium degree” means 25-35%, and “high degree” means more than 35%.

d. Ring shakes are also fiber separations along annual growth rings, but they almost or completely encircle the heart. Ring shakes are counted and also assessed as the ratio, expressed as a percentage, of the circumference of the ring shake and the average log diameter. The circumference is found by taking two measurements (perpendicular to each other) of the diameter of the ring shake, getting their average, and multiplying by pi (3.1416). “Low degree” of ring shake severity means less than 25%, “medium degree” means 25-35%, and “high degree” means more than 35%.

e. Checks are small fiber separations visible on the log cross section oriented in a radial direction. Checks are assessed by the measurement using a probe of their depth of penetration into the log. Checks are recorded only if they are deeper than 2 cm.

5. Log surface defects include surface checks, knots, splits, borer holes, and twisted grain.

a. Surface checks are small fiber separations on the log surface oriented longitudinally. They are assessed by the measurement using a probe of their depth of penetration into the log. Checks are recorded only if they are deeper than 2 cm. As well, the number of quadrants of the log where checks appear are counted.

b. The maximum diameter of each knot is measured in centimeters to the nearest decimal point and the number counted. “Small knots” are less than 3 cm in diameter, “medium knots” 3-5 cm, and “large knots” more than 5 cm. The count of the knots is expressed as number per 2.5 of log length (i.e. multiply the count by 2.5/L).

c. Splits are wide longitudinal fiber separations. They are assessed by the ratio of their length in meters recorded to the nearest decimal place and the log length. Their number is also counted. “Short splits” have lengths less than 10% of L, “medium splits” 10-20%, “long splits” more than 20%.

d. The diameter of borer holes are measured in millimeters. “Small-sized” borer holes have diameter of less than 1.5 mm, “medium-sized” 1.5-3.0 mm, and “large-sized” greater than 3 mm. The degree of concentration of each size class of borer holes are determined by counting their number found in 4 sampling units (of size 15 cm x 15 cm) for each meter of log length. For small-sized borer holes the degree of concentration is “low” if there is an average of less than 5 counted, “medium” if 16-32 are counted, and “high” if more than 32 are counted. For medium-sized borer holes the degree of concentration is “low” if there is an average of less than 5 counted, “medium” if 5-8 are counted, and “high” if more than 8 are counted. For large-sized borer holes the degree of concentration is “low” if there is an average of less than 3 counted, “medium” if 3-4 are counted, and “high” if more than 4 are counted.
To assess the degree of twist, draw a right triangle on the log using a chalk. One side of the triangle (T1) is along the central axis and about 60 cm long. The hypotenuse (T2) starts from T1 and is along the direction of the grain. The shortest side (T3) connects the other two. The degree of twist is calculated as $\text{degree of twist} = \frac{T3}{T2} \times 100\%$.

“Low degree” of twist means less than 5%, “medium degree” 5-10%, “high degree” more than 10%.

There are two peeler log grades (P1, P2) and six sawlog grades (S1, S2, S3, S4, S5, S6). The size and grade requirements for each grade are given in the following table.

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<tr>
<th>Grade factors</th>
<th>Peeler grades</th>
<th>Sawlog grades</th>
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<tr>
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<td>P1</td>
<td>P2</td>
</tr>
<tr>
<td>Diameter (cm)</td>
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</table>
| Length (m)             | >2.5| >2.5| >2.5| >2.5| >2.5| >2.5
| Soundness (%)          | 100| 100| >75| >65| >55| >45
| Sapwood condition      |    |    |    |    |    |    |
| Sound sapwood, but discolored sapwood is accepted |
| **Form**               |    |    |    |    |    |    |
| Circularity of cross section (%) | >80| 70-79| 70-79 |
| Log taper (cm/m)        | <5 | 5-10| 5-10 |
| Bend (%)                | <10| 10-20| <10 |
| Fluting (%)             | <15| 15-30| <15 |
| **End defects**         |    |    |    |    |    |    |
| Heart location ratio    | 1/4| 1/3 |
| Heart shakes number     | none| 2 |
| Cup shakes number (%)   | <25| <25| <25 |
| Ring shakes number (%)  | <25| <25| <25 |
| Checks, depth (cm)      | <2 | <2 | <2 |
| Checks, depth quadrant  | 1  | 2  | 2  |
| Knots per 2.5 m of log length number | 3 at 3-5 | 2 at 3-5 | 2 at 3-5 |
| Knots per 2.5 m of log length size, cm | 3-5 | 1 at >5 | 2 at >5 |
| Splits, number and length count | 2 only | 2 only | 2 only |
| Splits, number and length % | <10 | <20 | <20 |
| Borer holes, size and concentration small/med | small/high | med/low | med/med |
| Borer holes, size and concentration |    |     |     |
| Twisted grain (%)       | <5 | <10 | <5 |

Sawlog grade S6 has no minimum dimensions or degree of soundness.

The sawlog grades S2, S3, S4, S5, and S6 shall admit any log which is unacceptable for admission into a higher grade, subject to the specifications for the minimum dimensions and soundness being met.
Lesson 2.8.3.3
Official scaling and grading of logs

Objectives

At the end of the lesson, the participants should be able to:
1. Learn how logs are officially scaled and graded.
2. Learn how the scaling and grading information is used.

Methods

Discussion and demonstration

Materials

Large brown sheets of paper, marker, and masking tape
Log scaling and grading rules (see handout in Lesson 2.8.3.2)

Time

Two hours

Process

Discuss with the participants when official scaling and grading of logs are made and who will do the work. Continue by discussing the rules for grading logs. If logs are available demonstrate how grading is actually done. Otherwise, demonstrate using illustrations.

Learning notes

Official scaling and grading

Once a certain batch of logs, e.g. 200 m³, has been delivered to the second landing, the forestry staff initiates a request for PAFO to officially scale and grade the logs. PAFO appoints a scaling and grading committee consisting of a PAFO scaler-grader, a DAFO assistant scaler-grader, and representatives of the buyer and the group of VFAs. Annex 2.29.2 shows a summary of the scaling and grading rules.

Using the official log scaling and grading information

The PAFO scaler-grader prepares the scaling and grading document and secures the signature of the members of the committee. This document is used as the basis for calculating and paying of royalties and other taxes and fees. An agent of the buyer normally follows up the process of paying for the logs and securing the documents for transporting logs out of the second landing. Logs are released by the forestry staff and the second landing supervisor to the buyer’s agent only after the log transport documents approved by PAFO has been presented. The release of the logs is then duly recorded in the second landing log registry.

Back the Table of Contents
Course 2.9
Post-harvest operations

Introduction

The course is aimed at developing the capability of the forestry staff to train and assist
the village work teams in conducting annual post-harvest timber management operations.
These operations are aimed at assessing the impacts of the timber harvest and conducting
the required operations to improve the condition and productivity of the timber stand.

Contents

The course consists of two modules:

**Module 2.9.1 Post-harvest assessment.** In this module, the participants learn how to
assess the impacts of the timber harvest especially on the growing stock and the soil, as
well as assess the need for operations to improve the timber stand.

**Module 2.9.2 Forest regeneration and timber stand improvement.** The participants
learn how to ensure that the forest is regenerated successfully after the timber harvest and
how to improve its condition and productivity.
Module 2.9.1
Post-harvest assessment

Introduction

This module is aimed at strengthening the technical capability of the forestry staff to
train and assist the village teams in assessing the impacts of the timber harvest on the
growing stock and other components of the forest.

Contents

The module consists of three lessons:

Lesson 2.9.1.1 Assessing logging damage and canopy opening. In this lesson, the
participants learn how to assess the damage on the growing stock caused by the previous
logging operations.

Lesson 2.9.1.2 Assessing logging wastes. The participants learn how to assess the
quantity of useable wood left behind during the logging operations.

Lesson 2.9.1.3 Assessing the need for timber stand improvement operations. The
participants learn to assess the condition of the timber stand a few years after logging to
determine if further operations are needed to improve the condition and productivity of
the timber stand.
Lesson 2.9.1.1
Assessing logging damage and canopy opening

Objectives

At the end of the lesson, the participants should be able to:
1. Assess how much of the stand volume is destroyed by clearing access tracks.
2. Assess the damage to the growing stock caused by felling and log extraction.
3. Assess the total damage to the growing stock in proportion to the quantity of timber harvested.
4. Assess the extent of canopy opening caused by logging.
5. Assess the soil erosion hazards caused by logging and the means of correcting them.

Methods

Discussion and demonstration

Materials

Large brown sheets of paper, marker, and masking tape
Sample post-harvest assessment data and calculations (see attached handout)
Tree volume table (attached as a handout in Lesson 2.5.2.5)

Time

Two hours

Process

1. Discuss with the participants the sampling procedure to be used in assessing the damage caused by clearing access tracks and also that caused by felling and log extraction.

2. Using the sample data, demonstrate how to calculate the damage to the growing stock caused by clearing access tracks, felling, and log extraction.

3. Continue the lesson by discussing how to assess the extent of canopy opening caused by logging.

4. End the lesson by discussing how to assess the soil erosion hazards caused by logging and how to correct them.

Learning notes

Assessing damage from preparing access roads

At least five 15-m sections of the access tracks are taken at random from a VFMU. Data from several VFMUs may be combined later to determine the results applicable to a larger area. The stump size of all trees cut in the sample sections are measured. The
average number and volume of the damaged trees per hectare are calculated from these measurements using a tree volume table (see handout for a sample calculation).

**Assessing damage from felling and log extraction**

Ten stumpsites are taken at random from a VFMU. Data from several VFMUs may be combined later to determine the results applicable to a larger area. The dbh of all trees in the stumpsite which were damaged during felling and log extraction is measured. The number and volume of the damaged trees per hectare are calculated from these measurements using a tree volume table (see handout for a sample calculation).

**Assessing the total damage to the growing stock per cubic meter harvested**

Add the volume per hectare of damage caused by clearing access tracks to the damage caused by felling and log extraction. Divide by the volume harvested per hectare to determine the quantity of the damage in proportion to the volume harvested. This may be expressed in % by multiplying by 100 (see handout for a sample calculation).

**Assessing the opening of the canopy**

At the same stumpsites as those used in assessing felling damage, measure the diameter of the canopy opening in meters. Calculate the average canopy opening per tree harvested.

**Checking soil erosion hazards**

All access tracks are checked for soil erosion hazards by walking through them. Corrective action, if required (especially in sloping ground), is done by laying debris that will impede the surface run-off of water.
# Handout no. 2.9.1.1. Sample post-harvest assessment data and calculations

## Results of post-harvest assessment of logging damage

(4 VFAs in May 1999)

1. Damage from tree felling and log extraction

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<th>Volume m³</th>
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**Total no. of trees killed or damaged:**

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**Total volume cut (60 trees):**

- **Total no. of trees killed or damaged:** 399
- **Total volume killed:** 43.88 m³
- **Total volume damaged:** 37.76 m³
- **Killed as % of volume cut:** 9.8%
- **Damaged as % of volume cut:** 8.4%

**Average volume per tree cut:** 7.5 m³

**Volume of trees killed or damaged:**

- **Volume of trees killed + 70% of trees damaged:** 70 m³
- **Ave. volume killed + 70% damaged per tree cut:** 1.2 m³
- **Volume of trees killed + 50% of trees damaged:** 63 m³
- **Ave. volume killed + 50% damaged per tree cut:** 1.0 m³
- **Volume of trees killed + 30% of trees damaged:** 55 m³
- **Ave. volume killed + 30% damaged per tree cut:** 0.9 m³
2. Damage from clearing access tracks  

**Note:**

A sample is 3m x 15m of track.

Area of track per sample is 45 m².

A tree requires on average 35 m of track allowing maximum skidding distance Of 20 m by truck winch.

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**Trees cleared**

Total no. of trees cleared: 135

Ave. vol. per tree cleared: 0.02 m³

Total volume cleared: 5.50 m³

Average volume cleared per sample: 0.23 m³

Average volume cleared per m of track: 0.02 m³

Average volume cleared per tree cut: **0.53** m³

3. Average logging damage per tree cut

(Includes damage from clearing access tracks, felling, and log extraction)

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<th>Logging damage in %</th>
<th>1.71 m³</th>
<th>If 70% of damaged trees die</th>
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<td>Logging damage as % of volume cut</td>
<td>22.8%</td>
<td>If 70% of damaged trees die</td>
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<tr>
<td>Logging damage as % of volume cut</td>
<td>21.1%</td>
<td>If 50% of damaged trees die</td>
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<td>Logging damage as % of volume cut</td>
<td>19.5%</td>
<td>If 30% of damaged trees die</td>
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### Handout no. 2.9.1.2. Sample post-harvest assessment data and calculations 2

Utilizable wastes left behind during logging (species with hard, durable wood)

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<th>Total length in meters by dbh class</th>
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Ave. volume of logs recovered = $6.75$ cubic meters

Waste as % of logs recovered = $18.2\%$
Utilizable wastes left behind during logging (construction wood species)

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<td>2.8</td>
<td>3.1</td>
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Ave. volume of logs recovered = 8.20 cubic meters
Waste as % of logs recovered = 10.8%
Lesson 2.9.1.2
Assessing logging wastes

Objectives

At the end of the lesson, the participants should be able to assess the quantity of utilizable materials left behind during logging operations.

Methods

Discussion and demonstration

Materials

Large brown sheets of paper, marker, and masking tape
Sample data on logging wastes (see attached handout)
Tree volume table (from Lesson 2.9.1.1)

Time

One hour

Process

Discuss with the participants the sampling method to be used to assess the quantity of utilizable materials left behind during logging operations. Demonstrate how this quantity is calculated from a sample data set. How can this quantity of materials be profitably recovered?

Learning notes

At the same stumpsites as those used to assess felling damage, the stump, top, and large branches left behind by the harvested tree are measured as follows:

- **Stump.** Measure from the cutting level to the level where the cut should have been made to save wood.
- **Top.** Measure from where the diameter is about 30 cm to the place of cut.
- **Large branches.** Measure the diameter and length of large branches above 30 cm in diameter.

The attached handout shows a sample calculation of the volume of utilizable materials left behind during logging. If there is a market for this wood, as well as quota for recovering them, these materials can be utilized if the benefit exceeds the cost of extracting and transporting them to the selling point. Otherwise, the wood and materials are left behind to decay and help conserve the fertility of the forest soil.
Handout no. 2.9.1.2.1. Sample data and calculation of logging wastes
Utilizable wastes left behind during logging (species with hard, durable wood)

<table>
<thead>
<tr>
<th>Sample</th>
<th>Species</th>
<th>No. of tops and branches by dbh class</th>
<th>Total length in meters by dbh class</th>
<th>Total volume in cubic meters by dbh</th>
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Average: 13.6 5.6 4.5 3.5 17.0 8.6 9.9 11.9 0.13 0.26 0.66 1.42

Ave. volume of logs recovered = 6.75 cubic meters
Waste as % of logs recovered = 18.2%
### Sample data and calculation of logging wastes

Utilizable wastes left behind during logging (construction wood species)

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<th>Sample</th>
<th>Species</th>
<th>No. of tops and branches by dbh class</th>
<th>Total length in meters by dbh class</th>
<th>Total volume in cubic meters by dbh</th>
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<td>2.8</td>
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<td>2.6</td>
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Ave. volume of logs recovered = 8.20 cubic meters

Waste as % of logs recovered = 10.8%
Lesson 2.9.1.3
Assessing the need for timber stand improvement operations

Objectives

At the end of the lesson, the participants should be able to learn the procedure for assessing the need for timber stand improvement operations.

Method

Discussion

Materials

Large brown sheets of paper, marker, and masking tape

Time

Thirty minutes

Process

Discuss with the participants when to undertake an assessment of the timber stand to determine the need for timber stand improvement operations. Discuss how the assessment is undertaken.

Learning notes

When the second or subsequent cut is about to be undertaken, a few years would have elapsed since the last logging. In the case of a five-year cutting cycle, it would already have been about four years at the time of the pre-harvest inventory for the next cut. By this time, the need for timber stand improvement operations would already be more apparent. It is therefore recommended to combine the pre-harvest inventory for the next cut with post-harvest assessment of the last cut for the purpose of assessing the need for timber stand improvement operations.

To make the assessment, the team examines the logged-over sites and notes the location, if any, of places which can benefit from enrichment planting (e.g. large canopy openings) or liberation cutting to free the saplings of valuable species from weeds and other competition.
Module 2.9.2
Forest regeneration and timber stand improvement

Introduction

This module is aimed at strengthening the technical capability of the forestry staff to train and assist village teams in ensuring forest regeneration in various activities, i.e. planning the timber harvest, tree marking, felling, etc., and in improving the timber stand particularly after a few years following the timber harvest.

Contents

The module consists of two lessons:

Lesson 2.9.2.1 Ensuring forest regeneration. The participants learn how to incorporate the regeneration of the forest in various activities that are done before, during, and after the timber harvest.

Lesson 2.9.2.2 Timber stand improvement. The participants learn various techniques to improve the timber stand and when these techniques are applied.
Lesson 2.9.2.1  
Ensuring forest regeneration

Objectives

At the end of the lesson, the participants should be able to incorporate techniques for ensuring forest regeneration in various activities that are done before, during, and after the timber harvest.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape

Time

Two hours

Process

1. Discuss with the participants how forest regeneration is incorporated in the different pre-logging activities, such as pre-harvest inventory, logging planning, tree marking, and vine cutting.

2. Continue by discussing how forest regeneration is incorporated in logging activities, such as clearing access tracks, felling, and log transport.

3. Then discuss how forest regeneration is incorporated in post-logging activities.

4. As the last part of the discussion, take up how to ensure forest regeneration in the management of the dry dipterocarp forest.

Learning notes

Pre-logging activities to help ensure forest regeneration

Regeneration of the forest after harvesting is the heart of the village forest management system. All activities in the system directly or indirectly help to ensure that forest regeneration happens. Pre-logging activities that directly help to ensure regeneration include pre-harvest inventory, logging planning, tree marking, and vine cutting.

Pre-harvest inventory. Pre-harvest inventory provides information needed for planning how to ensure regeneration after the harvest. Most important of these are the volume of sub-compartments and the regeneration count.
Logging planning, deciding sub-compartments to be logged. The most important consideration in selecting which sub-compartments are to be logged is ensuring regeneration. Using stand volume as indicator:

- Sub-compartments with 150 m$^3$/ha or more are considered to be adequately stocked with large trees of commercial species that can regenerate the site after logging; hence, they are the first choice for harvesting.

- Sub-compartments with 120-150 m$^3$/ha may not have enough large trees of commercial species for regeneration purposes. To decide whether they should be harvested, the regeneration count is checked. Giving due consideration to how many of the existing regeneration are expected to grow to maturity, the following quantities of regeneration is recommended to be present before harvesting is allowed:
  - at least 180 saplings/ha of valuable species, or
  - at least 1800 saplings/ha of other commercial species, or
  - at least 120 saplings/ha of valuable species and at least 1200 saplings/ha of other commercial species.

- Sub-compartments with less than 120 m$^3$/ha are considered for regeneration purposes to be inadequately stocked with large trees of commercial species. Logging is not allowed, but dead and dying trees may be recovered if the log extraction does not cause too much destruction of the regeneration, e.g. near an existing access track. Care is especially taken if the stand volume is less than 100 m$^3$/ha, in which case only highly valuable dead trees of small sizes (thus requiring only manual log extraction) can be removed, e.g. mai khanyong.

Logging planning, selecting trees to be cut. The tree map and the inventory records of individual large trees (Pre-harvest Inventory Form 1) allow the selection of trees to be cut to ensure regeneration by:

- Preferring commercial species that are most abundant, e.g. mai khen hin and mai deng, over those that are not abundant, e.g. mai bak, mai khen thong and mai dou.

- Selecting as many species as possible so that cutting is not concentrated on only a few species, which may then change the stand composition.

- Not cutting too much of one species, i.e. not more than 20% of the number of large trees of a species.

- Preferring to select from a clump of trees rather than selecting a solitary tree.

- Spacing trees to be cut wide apart, e.g. at least 20 m, to prevent invasion of the open spaces by bamboo and other unwanted vegetation.

Logging planning, selecting seed trees. There must be at least 10 seed trees within a one-hectare area around the tree selected to be cut. Seed trees must be:

- Of commercial species
- Medium to large size (at least 40 cm dbh, actual size depends on the species)
- Of good form and condition (quality class 1 or 2)
• Capable of good seed production

**Tree marking.** Trees to be cut and seed trees are marked on the ground. For trees marked to be cut, the direction of cut that destroys the least number of regeneration is painted on the tree. Seed trees are marked with 2 dots on opposite sides of the stem at 1.3 m height and two dots on opposite sides of the stem below the cutting height (that could be used for checking if the seed tree is actually cut).

**Vine cutting.** Cutting of vines around trees marked to be cut is done at the same time as tree marking. Vine cutting helps to:
• Reduce risk to the safety of the felling crew
• Reduce felling damage because vines do not tie the trees together
• Reduce post-felling competition for space and sunlight
• Increase the availability of light reaching the understory, thereby preparing the seedlings for the post-logging environment

**Activities during logging to ensure regeneration**

Forest workers and logging teams are trained to look out for and take good care of regeneration when conducting logging operations, e.g. during access track preparation, felling, and extracting logs.

**Preparing access tracks.** When directing workers to places to be cleared for access, the guide avoids places with plenty of regeneration of valuable species.

**Felling.** Directional felling is used so that the tree falls towards the desired direction. The direction of fell is selected away from crop trees and from seedlings and saplings of valuable and other commercial species. Saplings are particularly prone to felling damage.

**Log transport.** Log extraction techniques that minimize damage to crop trees and regeneration are selected. The forwarding method using logging trucks over prepared access tracks is preferred; fortunately, it is the method commonly used in the Lao PDR. Skidding over long distances is discouraged. Animal skidding is preferred to mechanized skidding.

**Post-logging activities to further ensure regeneration**

Activities after harvest that ensure good natural regeneration of the timber stand include:
• Post-harvest assessment
• Promoting the development of saplings of valuable species

**Post-harvest assessment.** As discussed in Lesson 2.9.1.3, the post-harvest assessment which is done at the same time as the pre-harvest inventory for the next cycle is a good time to assess what activities can be done to further ensure forest regeneration and improve the timber stand.

**Promoting the development of saplings of valuable species.** The main principle in promoting the development of saplings of valuable species is to reduce competition for space, light, water, and nutrients from unwanted vegetation. During post-harvest assessment, the benefit of liberating saplings of valuable
species or reducing competition is assessed. It is desirable to have 30-50 saplings/ha of valuable species growing well and free from competition that may prevent or hinder their growth into the top layer of the canopy.

**Further considerations for regenerating and improving the dry dipterocarp forest**

- The major species in the dry dipterocarp forest are light demanding, hence larger gaps in the canopy are possible than in the high forest.

- Forest regeneration should be done by natural means.
  - Regeneration of *Shorea obtusa* is generally good because:
    - Seed production is usually adequate in groups of the species.
    - It has good capacity to recover after damage by fire and grazing.
    - Vegetative regeneration from young stumps is generally viable up to 5-6 cm in dbh.
  - Natural regeneration can be assisted by:
    - Creating gaps with a radius of 10-15 m around identified seed trees
    - Establishing areas where the development of existing seedlings will be promoted (minimum requirement – 100 saplings/ha of *Shorea obtusa, Dipterocarpus obtusifolius, D. tuberculatus*).
    - Selecting 50-100 good quality saplings for tending (Protection is required until the saplings are tall enough, i.e. 3-4 m high, to tolerate fire and grazing. Fencing may be considered if the selected saplings are susceptible to fire and grazing. If fencing is not possible then grazing should be reduced by other means.).

- Alleviating pressure from grazing and fire:
  - Prescribed burning early rather than late in the dry season is less detrimental to forest regeneration.
  - The access of cattle and buffaloes to sensitive areas should be limited.

- Tending of scattered, good-quality trees of valuable species:
  - Straight, non-deformed and healthy stems of valuable species may be tended to enable them to grow into timber sizes.
  - Mai deng is a suitable species.
Lesson 2.9.2.2
Timber stand improvement

Objectives

At the end of the lesson, the participants should have learned simple techniques for improving the timber stand and when these techniques are applied.

Methods

Discussion and lecture

Materials

Large brown sheets of paper, marker, and masking tape

Time

One hour

Process

• Discuss with the participants several simple techniques that have been tried in other countries to improve the timber stand especially after a few years from the timber harvest. In addition to those already discussed in Lesson 2.9.2.1, e.g. liberation cutting, these include enrichment planting, thinning, pruning, singling, and vine cutting.

• Discuss also the conditions under which the application of these techniques may be beneficial.

Learning notes

Enrichment planting

Enrichment planting is generally not recommended, since it requires considerable inputs and costs in procuring, planting, and tending of the seedlings. However, enrichment planting may be necessary if the number of saplings of valuable species is minimal because of damage during harvesting. This is not likely to happen in village forestry sites, where adequate seed trees are provided and opening of the canopy during harvest is not large.

If enrichment planting is at all undertaken, then:

• Species selected for enrichment planting must be:
  » Known to have reasonable diameter growth rate (when in dominant position)
  » Of good stem shape (low tapering)
  » Belonging to commercially valuable species
  » Reasonably quick to adapt to the site (less than 6 months)
  » Suitable species include mai peuay, mai deng, mai dou, mai tekha.
• No seedlings should be planted within 5 m of a commercial tree or sapling that has potential to reach the upper canopy.

• Regular tending of the seedlings should be done until they attain the size of 2-3 m to minimize competition from other vegetation. If this is not done, the efforts at enrichment planting will just be wasted.

**Thinning and other timber stand improvement techniques**

Aside from those already taken up, there is a number of other timber stand improvement techniques that have been tried in other countries, e.g.

• **Thinning.** The purpose of thinning is to remove undesirable trees (e.g. crooked, non-commercial species) which compete with the crop trees, as well as to remove some of the crop trees, if there are too many of them, in order to enhance the growth and quality of the remaining crop trees.

• **Pruning.** To remove branches that hinder the development of good tree form, as well as to hasten growth of the stem.

• **Singling.** In the case of coppicing trees, to reduce the number of stems that coppice from the stump.

• **Vine cutting.** To free the trees, especially their crowns, from vines that threaten to cut off light and other growth requirements.

• **Liberation cutting.** To free saplings or crop trees from large trees so that they can grow well.

The main issue in selecting which of these techniques to use in village forestry sites is whether the benefits expected from their application exceeds the cost of the application (i.e. the investment in labor and other inputs). Experiences from other countries have shown mixed results, so that it cannot be said that village forestry sites are certain to benefit from these techniques. Research trials must be conducted in Lao logged-over forests to assess the technical and economic viability of these techniques before they can be recommended.
Course 2.10
Establishing village rules on other forest management operations

Introduction

The course is intended for key villagers, particularly village administration officials and VFA officers who will lead the village in establishing rules on the use of forest resources. However, the course is first taught to forestry staff, primarily the trainers and extension workers, who will work with the key villagers. In the process they must act as if they are the intended participants of the village-level course.

Forest management operations not directly related to timber harvesting include customary use of the forest by villagers, such as to cut trees for household and community purposes, collect non-timber forest products, send livestock for grazing, and convert forestland to farms and other land uses. They also include forest protection and conservation activities. It should be noted that customary forest use is closely related to forest protection and conservation, since unplanned and excessive use of the forest could lead to deforestation and forest degradation.

Contents

The course includes two modules:

Module 2.10.1 Village rules on customary uses of the forest. In this module, the participants learn how to conduct activities leading to the establishment of village rules related to the customary uses of the forest.

Module 2.10.2 Village rules on forest protection and conservation. The participants continue learning to establish rules, this time for forest protection against fire, biodiversity conservation, and control of soil erosion.

Back the Table of Contents
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Module 2.10.1
Village rules on customary uses of the forest

Introduction

This module is aimed at strengthening the capacity of the participants to lead the village in formulating, approving, and implementing rules related to the customary uses of the forest, such as for cutting trees for household and community use, collecting non-timber forest products, grazing, and conversion of forest land to other land uses.

Contents

The module consists of twelve lessons:

Lesson 2.10.1.1 Understanding the importance of regulating the cutting of trees for household and community use. In this lesson, the participants learn to appreciate and understand the need to regulate the cutting of trees for household and community use.

Lesson 2.10.1.2 Review of existing practices, rules, and issues related to the cutting of trees for household and community use. The participants learn how to analytically review their existing practices and rules, and other issues related to the cutting of trees for household and community use.

Lesson 2.10.1.3 Writing the village rules on the cutting of trees for household and community use. The participants learn to formulate village rules on cutting of trees for household and community use.

Lesson 2.10.1.4 Understanding the importance of regulating the collection of non-timber forest products. The participants learn to appreciate and understand the need to regulate the collection of non-timber forest products.

Lesson 2.10.1.5 Review of existing practices, rules, and issues related to the collection of non-timber forest products. The participants learn how to analytically review their existing practices and rules, and other issues related to the collection of non-timber forest products.

Lesson 2.10.1.6 Writing the village rules on the collection of non-timber forest products. The participants learn to formulate village rules on collection of non-timber forest products.

Lesson 2.10.1.7 Understanding the importance of regulating grazing. The participants learn to appreciate and understand the need to regulate grazing.

Lesson 2.10.1.8 Review of existing practices, rules, and issues related to grazing. The participants learn how to analytically review their existing practices and rules, and other issues related to grazing.

Lesson 2.10.1.9 Writing the village rules on grazing. The participants learn to formulate village rules on grazing.
Lesson 2.10.1.10 *Understanding the importance of regulating the conversion of village land uses.* The participants learn to appreciate and understand the need to regulate the conversion of forest land to other land uses.

Lesson 2.10.1.11 *Review of existing practices, rules, and issues related to the conversion of village land uses.* The participants learn how to analytically review their existing practices and rules, and other issues related to the conversion of forest land to other land uses.

Lesson 2.10.1.12 *Writing the village rules on the conversion of village land uses.* The participants learn to formulate village rules on conversion of forest land to other land uses.
Lesson 2.10.1.1
Understanding the importance of regulating the cutting of trees for household and community use

Objectives

At the end of the lesson, the participants should be able to:
1. Explain the condition of their village forests (e.g. mixed deciduous and dry dipterocarp forests) based on village forest inventory results.
2. Appreciate the importance of regulating the cutting of trees for household and community use.

Method

Group discussion

Materials

Approved village forest management plan, village land use map, large brown sheets of paper and markers

Time

1 hour

Process

1. Discuss with the participants the present condition of forest resources (mixed deciduous forests and dry dipterocarp forests) in the village using the approved village forest management plan (see section 2 of the plan) and the village land use map.

2. Discuss and list (write down) on the large sheets of paper the results if cutting of trees is not controlled.

3. Discuss and list on the large sheets of paper the reasons why timber harvesting for household and community use should be regulated.
Lesson 2.10.1.2
Review of existing practices, rules, and issues related to cutting trees for household and village use

Objectives

At the end of the lesson, the participants should be able to:
1. Discuss the existing procedures, practices, and rules relating to timber harvesting for household and community use.
2. Explain the issues and problems relating to timber harvesting for household and community use.

Methods

Group discussion and problem tree analysis

Materials

Forestry Law of 1996, approved village forest management plan, approved annual operations plan, village land-use plan, any existing village rules related to cutting of trees

Large brown sheets of paper, colored paper, scissors, glue, markers, and pen

Time

2 hours

Process

1. Based on the discussions in lesson 2.10.1.1, ask the participants to discuss the existing procedures and practices related to cutting of trees for household and community use using the following guide questions:
   a. What are the existing procedures on cutting of trees for household use? For community use?
   b. Who approves, controls, and monitors the cutting of trees for household use? For community use?
   c. What are the existing practices on cutting trees for household use? For community use?
   d. Do these cutting practices destroy the forest or not? Why?
   e. What is the estimated number and volume (m³) of trees harvested annually in the village for household use? For community use?
   f. What timber species are commonly cut?
   g. Where are they cut, from the dry dipterocarp forest or the mixed deciduous forest?
   h. Is there a fee or tax for cutting trees for household use levied by the village? If yes, how much?
   i. Where will the money go (e.g. into a village fund)?

2. Ask the participants to discuss and list the current issues and problems related to cutting trees for household and community use. Discuss the causes and
effects of these problems using the problem tree analysis. (Review the problem tree exercise with the participants.)

3. Discuss with the participants the sections of the village forest management plan relevant to cutting trees for household and community use (see Section 3 of the plan). Discuss the designated cutting areas in the DDF as indicated in the village forest management map.

4. Discuss with the participants the sections of the annual operations plan relevant to cutting trees for household and community use (see Sections 2.1, 2.3, and 3.2 of the plan).

5. Discuss with the participants the provisions of the Forestry Law of 1996 related to cutting trees for household and community use (e.g. Articles 28, 30 and 63).

6. Ask the participants to review existing village guidelines/rules (if any) related to cutting trees for household and community use using the following guide questions:
   a. Are these rules effective or ineffective? Why?
   b. What are the changes needed to improve these rules?
   c. Who monitors and controls the implementation of these rules?
   d. Do the village rules contain the following items?
      • Criteria or guidelines for cutting trees for household and community use (e.g. what, where, when, and how to harvest timber)
      • Cutting limits
      • Procedures for requesting, approving, monitoring, controlling, and reporting cutting trees for household and community use
      • Provisions for penalties for non-compliance and violation of the rules.
Lesson 2.10.1.3
Writing the village rules on cutting trees for household and community use

Objective

At the end of the lesson, the participants should be able to write rules on cutting trees for household and community use.

Methods

Group discussion and guided group work

Materials

Forestry Law of 1996, any existing village rules related to cutting trees, approved village forest management plan, approved annual operations plan, approved village land use plan

Sheets of standard forms for writing VFA rules

Time

2 hours

Process

Based on the results of the review and discussions in Lesson 2.10.1.2, ask the participants to write new or improved guidelines and rules on cutting trees for household and community use. Use the following guide questions:

1. What are the requirements and procedures for requesting the cutting of trees for household and community use?

2. What are the basis and procedures for reviewing and approving/disapproving requests?

3. Are there designated cutting sites for cutting trees for household and community use?

4. Are there species and volume limits for cutting trees for household and community use?

5. What are the procedures for monitoring, controlling, and reporting the cutting of trees for household and community use?

6. What are the penalties for non-compliance or violation of the rules?

7. What are the procedures for approving and amending the rules?

8. In the case of a village cluster, how will the rules be formulated and enforced?
Learning notes

The following is an example of a set of guidelines and rules on cutting trees for household and community use.

1. The villager or village association who wants to cut trees for household and community use makes an oral request to the VFA Secretary. The date and other information, together with the signature of the requester, are entered into a registry of timber harvest for local use (see handout).

2. The request is presented to, discussed with, and evaluated by the village chief and VFA manager based on the following checklist (see also a handout):
   a. Is the request justified?
   b. Are the species and volume requested within limits? (Attach a set of limits agreed to by the village.)
   c. Is the harvesting site that as prescribed in the village forest management plan? (Attach a map showing the current harvesting sites.)

3. If the request is approved by the village chief and VFA manager, the requester and a VFA authorized representative go to the forest and mark the trees, making sure that cutting rules are followed, e.g. trees to be cut are not closer than 20 m apart; at least 10 seed trees are found within a hectare around the marked tree; cutting is outside the buffer strip of waterways, etc.

4. The trees are cut under the supervision of the VFA authorized representative.

5. The VFA authorized representative reports the completion of the work to the VFA Secretary, who then makes the proper entry into the registry.
Handout no. 2.10.1.3.1. Sample format of a registry of timber harvest for household and village use
Ban__________________________

<table>
<thead>
<tr>
<th>Date of Request/approval</th>
<th>Name of villager/village group</th>
<th>Purpose</th>
<th>Trees to be harvested</th>
<th>Post harvest inspection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request</td>
<td>Signature/Thumb mark</td>
<td>Approved</td>
<td>Signature</td>
<td></td>
</tr>
<tr>
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</table>
Handout no. 2.10.1.3.2. Checklist for evaluating request for cutting trees for household and community use

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes</th>
<th>No</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the request in accordance with approved national and village laws, rules and regulations?</td>
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<td>Are the trees to be cut not of prohibited species?</td>
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<tr>
<td>Is the request adequate and not excessive considering the purpose or intended use of the timber?</td>
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<tr>
<td>Are the trees to be cut found within the approved cutting sites?</td>
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<tr>
<td>Are the trees not designated seed trees?</td>
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<tr>
<td>Are the trees outside the 30-m buffer from a stream?</td>
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<tr>
<td>Are the trees to be cut clear from any customary tree rights claim?</td>
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<tr>
<td>Is the result of the ocular inspection satisfactory?</td>
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</table>
Lesson 2.10.1.4
Understanding the need to regulate the collection of non-timber forest products (NTFPs)

Objectives

At the end of the lesson, the participants should be able to:
1. Understand and explain the status and trends of collection of NTFPs in their village.
2. Explain the importance of regulating the collection of NTFPs.

Methods

Group discussion, trend-line diagramming, pair-wise ranking, participatory mapping, seasonal diagramming

Materials

Board and chalk, large brown sheets of paper, markers, masking tape, village forest management map

Time

3 hours

Process

1. Ask the participants to list (write down) the NTFPs that villagers collect.
2. Based on the list, ask the participants to identify NTFPs which are most important to them. Why are these NTFPs important? Rank these NTFPs according to their importance using the pair-wise ranking exercise.
3. Which of these important NTFPs are collected for family use, for cash sale, or for exchange with other goods?
4. Ask the participants to indicate in a calendar the time of the year when these important NTFPs are collected (use the seasonal diagramming exercise).
5. Ask the participants to indicate on the village forest management map the approximate locations where these important NTFPs are collected (use participatory mapping exercise).
6. Ask the participants to indicate the increase or decrease in the availability of these important NTFPs through the years using a trend-line diagram exercise.
7. Discuss and list down the results and effects if collection of these NTFPs is not regulated and, conversely, the reasons why collection of these NTFPs should be regulated.
The methods for the different exercises have been discussed in earlier lessons on PRA tools, except for trend-line diagramming whose steps are described below:

**Step 1.** Organize the participants by selecting participants who have been involved in NTFP collection for a long period of time. It is preferable to discuss with different NTFP collector groups (based on the NTFP they collect). It is also advisable to have separate discussions between men and women collectors.

**Step 2.** Explain to the participants the purpose of the NTFP trend-line diagramming.

**Step 3.** Draw a matrix on the board or a large brown sheet of paper. Indicate the years along the bottom axis. Decide on the number of years that the information will cover including and the interval of years that will be used. (Tip: Start from the year the village was established up to present.) Explain how the years are to move from left to right along the axis and how the estimates of increasing or decreasing NTFP availability are to be indicated.

**Step 4.** Begin the exercise by asking the participants to discuss about significant changes in the amount of NTFPs collected by villagers through the years and indicate these changes in a trend-line diagram as discussed in Step 3. If it is not possible to quantify the amount of NTFP collected, a simple indication of the increase and decrease (using lower or higher) over the years may be done. Ask one of the participants to lead while the trainer guides them in undertaking the exercise. Repeat the exercise for each of the important NTFPs.

**Step 5.** When the trend line diagrams are completed, encourage a discussion on the trends that have emerged and the reasons for the trends. For example, if the availability of NTFPs has decreased through the years, ask the participants for the causes of the decrease.
Lesson 2.10.1.5
Assessing existing NTFP related practices, rules and issues

Objectives

At the end of the lesson, the participants should be able to:
1. Discuss existing procedures, practices, and rules relating to NTFPs.
2. Explain the issues and problems relating to NTFP collection

Method

Group discussion

Materials

Forestry Law of 1996, village forest management plan, annual operations plan, any existing village rules on NTFP
Large brown sheets of paper and marker, masking tape

Time

2 hours

Process

1. Based on the results of the NTFP trend-line diagramming, seasonal diagramming, participatory mapping, and discussions in Lesson 2.10.1.4, ask the participants to review the existing procedures, practices, and rules related to NTFP collection using the following guide questions:
   a) What is the existing procedure in collecting NTFPs in the village?
   b) Who controls and monitors and how is the collection of NTFPs regulated?
   c) Are the NTFP collection rates excessive? Ask the participants to determine their own indicators or measurements for excessive collection rates for each of the important NTFPs.
   d) What are the present practices or techniques in NTFP collection? Describe for each of the important NTFPs.
   e) Are these practices destructive or non-destructive? Why?
   f) What important NTFPs may soon disappear if they are collected excessively or destructively?
   g) Are there people from other villages who are collecting NTFPs within the village?
   h) What actions are needed to reduce excessive collection rates and improve destructive collection practices? Indicate for each of the important NTFPs.

2. Ask the participants to discuss and list the current issues and problems related to the collection of NTFPs and identify the actions to be taken.

3. Discuss with the participants the sections of the village forest management plan related to NTFP collection (e.g. Sections 3.2, 3.4, and 3.7).
4. Discuss with the participants the approved annual operations plan relevant to NTFP collection (see section 2.1, 2.3, 3.2, and 3.3 of the plan).

5. Discuss with the participants the provisions of the Forestry Law of 1996 related to NTFPs (e.g. Article 25).

6. Ask the participants to review the existing village rules and guidelines on NTFP collection using the following guide questions:
   a. Are the rules adequate to ensure sustainable collection of NTFPs? Why?
   b. What are the changes needed to improve these rules?
   c. Who monitors and controls the implementation of these rules?
   d. Do the village rules on NTFP contain these items?
      • Criteria for NTFP collection (e.g. what, where, when, how to collect NTFPs)
      • Limits for collecting NTFPs
      • Procedures for monitoring, controlling, and reporting the collection of NTFPs
      • Provisions for non-compliance and violation of the rules
Lesson 2.10.1.6
Writing the village rules on collection of NTFPs

Objective

At the end of the lesson, the participants should be able to write new or improved existing guidelines and rules on the management on NTFPs

Methods

Group discussion and guided group work

Materials

Forestry Law of 1996, existing village rules on collection of NTFPs, village forest management plan, annual operations plan, sheets of standard forms for writing VFA rules

Time

2 hours

Process

Based on the results of the discussions in lessons 2.10.1.4 and 2.10.1.5, ask the participants to write new or improved guidelines and rules on collection of NTFPs using the following guide questions:
1. What are the procedures for regulating, monitoring, and reporting the collection of important NTFPs (i.e. who does what, where, how and when)?
2. How would the excessive NTFP collection rates be corrected or improved?
3. How would the destruction NTFP collection practices or techniques be improved?
4. Are there designated sites for collecting important NTFPs?
5. Are there limits on collecting important NTFPs?
6. Are there certain periods of the year when certain sites are closed to the collection of important NTFPs?
7. What are the penalties for non-compliance and violation of rules?
8. Who, how, and where would the collected information on NTFP be used?
9. What are the procedures for approving and amending the rules on collection of NTFPs?
10. In the case of a village cluster, how will rules be formulated and enforced?

Learning notes

Sample guidelines for regulating, monitoring and reporting the collection of NTFPs

Step 1. Monitoring and reporting the collection of important NTFPs will be the responsibility of the VFA through the NTFP monitoring team. The team will also recommend to the VFA and village administration necessary actions related to the collection of NTFPs.
Step 2. The NTFP monitoring team will work closely with the different NTFP collector groups in the village. Collectors groups may be formed for each of the important NTFPs identified by the villagers.

Step 3. The NTFP monitoring team in consultation with the village administration, VFA policy committee, and NTFP collector groups will list the kind of information to be gathered for monitoring purposes, indicators or means for measuring the amount of NTFP collected, etc.

Step 4. Regular monitoring meetings will be held by the NTFP monitoring team with the different NTFP collectors groups to monitor the collection of NTFPs, trends, problems, causes, and recommended actions. The frequency of meetings with the different NTFP collector groups shall be based on the NTFP seasonal calendar prepared in Lesson 2.10.1.5.

Step 5. The DAFO staff will provide assistance and help to facilitate NTFP monitoring meetings.

Step 6. Results of the NTFP monitoring meetings will be consolidated by the NTFP monitoring team into a NTFP Monitoring Form (see handout) and submitted to the village administration through the VFA policy committee for appropriate action.

Step 7. The NTFP monitoring results will be used for information dissemination, reporting, and as inputs for improving existing village rules on NTFP collection and practices. It will also serve as basis for initiating appropriate measures to manage important NTFPs (e.g. setting NTFP collection limits, zoning of NTFP collection areas, etc.).
### Handout no. 2.10.1.6.1. Non-timber forest products monitoring form

Ban ________________________________

For the period: _________________________________

<table>
<thead>
<tr>
<th>Name of NTFP</th>
<th>Type of NTFP</th>
<th>Where collected</th>
<th>When collected</th>
<th>Quantity collected</th>
<th>Problems</th>
<th>Causes</th>
<th>Recommendations</th>
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Lesson 2.10.1.7
Understanding the importance of regulating grazing

Objectives

At the end of the lesson, the participants should be able to:
1. Understand and explain the status and extent of grazing in the village.
2. Explain the importance of regulating grazing.

Method

Group discussion

Materials

Village land-use map, large brown sheets of paper, crayons, pencils, pens, and masking tape

Time

1 hour

Process

1. Ask the participants to review the village land-use map and discuss the present status and extent of grazing in the village using the following guide questions:
   a. How much area (in hectares) is presently utilized for grazing purposes? Are the grazing sites used the year round? Identify or indicate these sites on the map. Has the grazing land been increasing or decreasing in the past five years? Why?
   b. How many households are practicing grazing their livestock? What is the average number of livestock owned by a household? What is the estimated total number of grazing livestock in the village? Identify the livestock species. Has the number of households practicing grazing and the number of grazing livestock been increasing or decreasing in the past five years? Why?
   c. Has there been over-grazing in the village during the past five years? What are the villagers’ indicators for over-grazing?
   d. Are there animals from other villages that are grazing in the village? If yes, what is the extent of the grazing practices in terms of the number of households, livestock, and areas of grazing land?

2. Ask the participants to review the village land use map and indicate roughly on the map the sites used for grazing purposes.

3. Discuss and list on a large sheet of paper the positive and negative effects of grazing (on forest regeneration, soil, food security, household/village economy, etc.).

4. Discuss and list on paper the reasons why grazing should be regulated.
Lesson 2.10.1.8
Review of existing practices, rules, and issues related to grazing

Objectives

By the end of lesson, the participants should be able to:
1. Explain the existing procedures, practices, and rules related to grazing.
2. Explain the issues and problems related to grazing.

Methods

Group discussion and problem tree analysis

Materials

Forestry Law of 1996, village forest management plan, annual operations plan, village land use plan, any existing village rules related to grazing
Large brown sheets of paper, color paper, scissors, glue, marker, pen, and masking tape

Time

2 hours

Process

1. Based on the discussion in Lesson 2.10.2.7, ask the participants to discuss the existing procedures and practices related to grazing using the following guide questions:
   a. What are the existing procedures in the village on grazing?
   b. Who controls and monitors grazing activities in the village?
   c. What are the existing grazing practices and techniques used in the village? Are these traditional or externally introduced or acquired practices (e.g. use of fire, rotation grazing, fencing)?
   d. Are grazing lands designated communally or individually? Why?
   e. Do villagers practice the “cut and carry” technique? Why or why not?
   f. Do the villagers depend on naturally grown fodder or cultivated fodder for grazing livestock? Explain.
   g. Are these grazing practices destructive or non-destructive? Why?

2. Ask the participants to discuss and list down the issues and problems related to grazing. Discuss the causes and effects of these problems using the problem-tree analysis.

3. Discuss with the participants the sections of the village forest management plan related to grazing (Sections 3.2 and 3.10).

4. Discuss with the participants the sections of the annual operations plan related to grazing (Sections 2.1 and 3.6).

5. Ask the participants to review any existing village rules related to grazing using the following guide questions:
a. Are these rules effective or ineffective? Why?

b. What are the changes needed to improve these rules?

c. Who monitors and controls the implementation of these rules?

d. Do the village rules contain these items?
   • Criteria or guidelines for grazing (e.g. who does what, where, when, and how to graze)
   • Designated specific areas and time of the year for grazing
   • Procedures for requesting, approving, monitoring, controlling, and reporting grazing in the village
   • Provisions for non-compliance and violations of the rules
Lesson 2.10.1.9
Writing the village rules on grazing

Objectives

At the end of the lesson, the participants should be able to write the guidelines and rules on grazing.

Methods

Group discussion and supervised group work

Materials

Forestry Law of 1996, any existing village rules on grazing, village forest management plan, annual operations plan, village land use plan, sheets of standard forms for writing VFA rules

Time

2 hours

Process

Based on the results of the review and discussions in lessons 2.10.1.7 and 2.10.1.8, ask the participants to write new or improved guidelines and rules on grazing using the following guide questions:

1. What are the requirements and procedures for grazing in the village?

2. Are there designated sites in the village where grazing can be done? What are the criteria for designating grazing sites? Will sites for grazing be rotated? Why? How long should the rotation be (e.g. 5 years or longer)?

3. Are there specific time of the year when grazing is allowed or not allowed?

4. What are the procedures for monitoring, controlling, and reporting grazing in the village? Can grazing be done communally where the herding responsibility is rotated among the livestock owners?

5. Is there a need to introduce new fodder in the village for livestock grazing? Why or why not?

6. Should villagers be required to practice the “cut and carry” technique? Why or why not?

7. What action or arrangement should be taken in cases where grazing is done in the village by people from other villages?

8. What measures should be taken to prevent the destructive effects of the use of fire in grazing (controlled burning, fire lines, etc)?
9. How will village rules on grazing be enforced? Who will be responsible for enforcement?

10. What are the penalties for non-compliance or violations of the rules?

11. What are the procedures for approving and amending the rules on grazing?

12. In the case of a village cluster, how are rules formulated and enforced?
Lesson 2.10.1.10
Understanding the importance of regulating the conversion of village land uses

Objectives

At the end of the lesson the participants should be able to:
1. Understand and explain the present and future village land uses in the village.
2. Explain the importance of regulating the conversion of village land uses.

Method

Group discussion

Materials

Village land-use map, village land-use plan, large brown sheets of paper, marker, masking tape

Time

1 hour

Process

1. Ask the participants to discuss and list down the conversion of land uses commonly done in the village (e.g. DDF to rice paddies) and indicate the reasons. Indicate also which conversions are for household or community purposes.

2. Discuss with the participants the present village land-use map and the village land-use plan.

3. Discuss and list (write down) the effects of unregulated village land-use conversion.

4. Discuss and list the reasons why the conversion of village land uses should be regulated.
Lesson 2.10.1.11
Review of existing practices, rules, and issues related to the conversion of village land uses

Objectives

At the end of the lesson, the participants should be able to:
1. Explain the existing procedures, practices, and rules related to the conversion of village land uses.
2. Explain the issues and problems related to the conversion of village land uses.

Methods

Group discussion, problem tree analysis

Materials

Forestry Law of 1996, village land-use map, village land-use plan, any existing village rules on conversion of village land uses
Large brown sheets of paper and markers, masking tape

Time

2 hours

Process

1. Based on the discussions in Lesson 2.10.1.10, ask the participants to discuss the existing procedures and practices related to the conversion of village land uses using the following guide questions:
   a. What is the existing procedure for converting village land uses?
   b. Are there still unauthorized conversions of village land uses happening in the village (i.e. conversions not in accordance with the village rules and village land use plan)? Why? If yes, cite some examples.
   c. What actions are taken against unauthorized conversion of village land uses?
   d. Are conversions of village land uses (authorized or unauthorized) recorded in the village land registry or map of the village land use plan?
   e. Who approves, controls, and monitors the conversion of village land uses?
   f. What are the roles of the village administration, village land allocation committee and the village cadastral survey and mapping teams in the conversion of village land uses?
   g. What are the existing practices in converting village land uses?
   h. Are these practices destructive or non-destructive? Why?
i. What actions are needed to improve destructive practices in village land-use conversions?

2. Ask the participants to discuss and list the current issues and problems related to the conversion of village land uses. Discuss the causes and effects of these problems using the problem tree analysis.

3. Are there past and present conflicts in the village related to village land-use conversions? Are there conflicts involving persons from other villages? How are these conflicts resolved?

4. Discuss with the participants the provisions of the Forestry Law of 1996 related to the conversion of village land uses (e.g. Articles 14 and 15).

5. Ask the participants to review any existing village guidelines or rules related to the conversion of village land uses using the following guide questions:
   a. Are there written rules related to the conversion of village land uses? Why?
   b. Are these rules effective or ineffective? Why?
   c. Are the actual conversions of village land uses in accordance with the approved village rules and village forest management plan? If not, why?
   d. What are the changes needed to improve these rules?
   e. Who monitors and control the implementation of these rules?
   f. Do the village rules contain these items?
      - Criteria or basis for conversion of village land uses
      - Procedures for requesting, approving, monitoring, controlling, and reporting the conversion of village land uses
      - Provisions for non-compliance and violations of the rules
Lesson 2.10.1.12
Writing the village rules on conversion of village land uses

Objective
At the end of the lesson, the participants should be able to write new or improved rules and guidelines related to the conversion of village land uses.

Methods
Group discussion and supervised group work

Materials
Forest Law of 1996, village land-use plan, any existing village rules on conversion of village land uses, sheets of standard formats for writing VFA rules

Time
2 hours

Process
Based on the review and discussions in Lessons 2.10.1.10 and 2.10.1.11, ask the participants to write new or improved guidelines and rules on conversion of village land uses using the following guide questions:

1. What are the requirements and procedures for requesting for conversion of land uses for household or village use, e.g. DDF to rice paddies and expansion of village settlement?

2. What are the criteria for reviewing and approving requests for conversion of village land uses?

3. Are there designated sites where specific land uses can be converted to other uses?

4. Are there limits (in terms of land size) for specific conversions of village land uses?

5. What are the procedures for monitoring, controlling, and reporting conversions of village land uses?

6. What are the penalties for non-compliance and violations of the rules? Who enforces and how are the rules enforced?

7. What are the procedures for approving and amending the rules on conversion of land uses?

8. In the case of a village cluster, how are rules formulated and enforced?
Learning notes

Sample guidelines on conversion of village land uses

Step 1. The villager or village association who wants to convert a piece of forest into a farm or other land uses makes a verbal application or request to the Secretary of the Village Land Allocation Committee. The date and other information, together with the signature (or thumb mark) of the applicant, are entered into the records of application for village land-use conversion (see handout).

Step 2. A member of the Village Land Allocation Committee conducts an ocular inspection of the requested land.

Step 3. The application is presented to, discussed with, and evaluated by the Village Land Allocation Committee based on the following checklist:
   a. Is the request within the limits set by law?
   b. Is the requested area as prescribed in the village land-use plan?
   c. Is the request justified and fitting to the intended purpose?
   d. Is the requested area clear of prior claims?
   e. Does the ocular inspection confirm the answers to the above questions?

Step 4. The committee presents its recommendations to the village chief.

Step 5. If the application is approved by the village chief, the Secretary of the committee records the date of approval and the village chief signs in his approval in the records of application for village land-use conversion.

Step 6. The committee asks the village cadastral survey and mapping team, together with the applicant, to survey and map the area. The map and all related information are entered into the village cadastre and village land registry.

Step 7. The applicant receives a copy of the map signed by the village chief.

Step 8. If an official land title is desired, an application is made at the district headquarters with the endorsement of the village chief.
### Handout no. 2.10.1.12.1. Records of application for land-use conversion

Ban ____________________________

<table>
<thead>
<tr>
<th>Date of request/approval</th>
<th>Name of requester</th>
<th>Land to be converted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request</td>
<td>Signature/Thumb mark</td>
<td>Approved</td>
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Module 2.10.2
Village rules on forest protection and conservation

Introduction

This module is aimed at providing the participants with knowledge and skills in leading the village in formulating, approving, and implementing rules on protecting the forest against fire and on conserving biodiversity and the soil.

Contents

The module consists of nine lessons:

Lesson 2.10.2.1 Understanding the importance of forest fire protection and control - In this lesson, the participants learn to appreciate and understand the need to protect the forest against fire.

Lesson 2.10.2.2 Review of existing practices, rules, and issues related to forest fire protection and control - The participants learn how to analytically review their existing practices and rules, and other issues related to forest fire protection and control.

Lesson 2.10.2.3 Writing the village rules on forest fire protection and control - The participants learn to formulate village rules on forest fire protection and control.

Lesson 2.10.2.4 Understanding the importance of controlling hunting and conserving biodiversity in the village forest - The participants learn to appreciate and understand the need to regulate hunting and conserve biodiversity.

Lesson 2.10.2.5 Review of existing practices, rules, and issues related to hunting and biodiversity conservation - The participants learn how to analytically review their existing practices and rules, and other issues related to hunting and biodiversity conservation.

Lesson 2.10.2.6 Writing the village rules on hunting and biodiversity conservation - The participants learn to formulate village rules on hunting and biodiversity conservation.

Lesson 2.10.2.7 Understanding the importance of controlling soil erosion - The participants learn to appreciate and understand the need to control soil erosion.

Lesson 2.10.2.8 Review of existing practices, rules, and issues related to soil conservation. The participants learn how to analytically review their existing practices and rules, and other issues related to soil conservation.

Lesson 2.10.2.9 - Formulating a village program on soil conservation. The participants learn to formulate a village program for monitoring and controlling soil erosion.
Lesson 2.10.2.1
Understanding the importance of forest fire protection and control

Objectives

At the end of the lesson, the participants should be able to:
1. Discuss and explain the main causes and effects of forest fires.
2. Explain the importance of preventing and controlling forest fires

Methods

Lecture-discussion and supervised group work, problem tree analysis, participatory mapping

Materials

Large sheets of paper, colored paper, scissors, glue, markers, pens, masking tape

Time

1 hour

Process

1. Discuss with participants the main causes and effects of forest fires using the following guide questions:
   a. What are the main causes of forest fires?
   b. What are the negative effects of forest fires?
   c. What are the positive effects of forest fires?

2. Divide participants into groups and ask each group to make their own problem tree using words, diagrams, and/or pictures. Identify both the causes and effects of forest fires. Ask each group to present their outputs.

3. Ask the participants to identify and indicate on the village forest management map the fire prone areas (fire prone areas are those where fire occurrences have been prevalent) and indicate the causes, if known.

4. Ask the participants what time of the year forest fires are prevalent in their village.

5. Based on the above discussions, ask the participants to list (write down) the reasons why forest fires should be prevented and controlled.
Lesson 2.10.2.2
Review of existing practices, rules, and issues related to forest fire protection and control

Objective

At the end of the lesson, the participants should be able to explain the existing practices, rules, and issues related to forest fire.

Methods

Group discussion and supervised group work, participatory mapping

Materials

Forestry Law of 1996, village forest management contract, village forest management plan, annual operations plan, any village rules on forest fire

Time

2 hours

Process

1. Based on the discussions in lesson 2.1, ask the participants to discuss and identify the different practices in the villages where fire is used as a tool (grazing and farming practices, etc.). Discuss whether these practices are destructive or non-destructive? Why? What actions are needed to improve the destructive practices?

2. Ask the participants to discuss existing fire protection and control practices in the village using the following guide questions:
   a. What practices do the villagers use to prevent forest fires?
   b. What practices do the villagers use to control forest fires?
   c. What arrangements does the village have to combat forest fires that occur within the village? What arrangements are there for fires in neighboring villages? Are these arrangements workable? Why or Why not?
   d. Who is responsible for forest fire prevention and control in the village? What are their duties?
   e. What forest fire prevention and control related activities are undertaken voluntarily and which ones are compensated?

3. Ask the participants to discuss the issues and problems related to forest fire prevention and control including the actions needed to solve them.

4. Discuss with the participants the village forest management contract relevant to forest fire (see Section 7.1 of the contract).

5. Discuss with the participants the village forest management plan (1998-2007) relevant to forest fire (see Section 3.10 of the plan).

6. Discuss with the participants the annual operations plan relevant to forest fire (see Section 3.6 of the plan).
7. Discuss with the participants the provisions of the Forestry Law 1996 related to forest fire (e.g. Articles 8, 46, and 63).

8. Ask the participants to review any existing village rules on forest fire prevention and control using the following guide questions:
   a. Are there written village rules related to forest fire?
   b. Are these rules effective or ineffective? Why or why not?
   c. Are there persons responsible for forest fire prevention and control? Are they effective? Why or why not?
   d. Are there measures for preventing and controlling forest fires?
   e. Are there provisions for non-compliance and violation of rules?
Lesson 2.10.2.3
Writing the village rules on forest fire protection and control

Objectives

At the end of the lesson the participants should be able to write new or improved guidelines and rules on forest fire protection and control.

Methods

Group discussion and supervised group work

Materials:

- Tracing paper, color pens, pencils
- Village forest management map showing the fire prone areas
- Sheets of standard forms for writing VFA rules

Time

2 hours

Process

Based on the results of the review and discussions in Lessons 2.10.2.1 and 2.10.2.2, ask the participants to write new or improved guidelines and rules on forest fire protection and control using the following guide questions:

1. What measures will be adopted to prevent forest fires?
2. What measures will be adopted to control forest fires?
3. Will the village forest areas be zoned (e.g. high, medium and low fire prone areas) for action planning, patrolling, information dissemination, and monitoring purposes?
4. Will there be an annual action plan for forest protection and control? Who will prepare and implement the plan? What is the content of the plan, e.g. the plan may include activities such as (a) forest fire protection and control activities including schedules, (b) targets, (c) organization and mobilization of village teams, (d) budget, and (e) monitoring and reporting?
5. Who will be responsible for forest fire protection and control? What are their duties? How will they be organized? Will they be compensated or will it be a voluntary work?
6. What is the role of the VFA training and education committee?
7. What are the penalties for non-compliance and violation of the rules?
8. What is the procedure for approving and amending rules related to forest fires?
9. In the case of a village cluster, how will rules be formulated and enforced?
Learning notes

Forest fire protection and control strategies that villagers can adopt

- **Fire preventive measures.** These may include (a) information dissemination and education campaign to promote villagers cooperation and support, (b) forest patrol, (c) use of fire lines and controlled burning, (d) strict enforcement of village rules, and (e) adoption of no-fire bonus incentive schemes.

- **Fire control and suppression measures.** These may include (a) early fire detection system, (b) organization of fire control and suppression teams, and (c) fire suppression procedures, tools, and training, etc.

Guidelines in preparing a village forest fire zones map

**Step 1.** Trace the village forest management map.

**Step 2.** Indicate on the traced village forest management map the areas prone to forest fires.

**Step 3.** Zone and classify these areas into low, medium, and high fire prone areas. Discuss the criteria that will be used to determine these classifications using the sample matrix below:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of fire occurrences</td>
<td>Once every 5 years</td>
<td>One every 2-3 years</td>
<td>Every year</td>
</tr>
<tr>
<td>Location of forest</td>
<td>DDF far from rice paddies and no grazing</td>
<td>DDF near rice paddies and no grazing</td>
<td>DDF near rice paddies and with grazing</td>
</tr>
<tr>
<td>Accessibility</td>
<td>DDF without road and trails</td>
<td>DDF with trails</td>
<td>DDF with access roads and trails</td>
</tr>
<tr>
<td>Presence of inflammable materials</td>
<td>Low amount of inflammable materials</td>
<td>Medium amount of inflammable materials</td>
<td>High amount of inflammable materials</td>
</tr>
</tbody>
</table>

**Step 4.** Discuss the legends to be used in representing the different village forest fire zones.
Lesson 2.10.2.4
Understanding the importance of regulating hunting and conserving biodiversity in the village forests

Objectives

At the end of the lesson, participants should be able to:
1. Explain the role and importance of biodiversity in general and wildlife in particular, and the reasons and importance of hunting.
2. Explain the importance of regulating hunting in the village forest management unit.

Methods

Lecture-discussion and guided group work

Materials

Forests for life poster, village forestry flip chart, pictures of wildlife

Time

1 hour

Process

1. Using the village forestry flip chart, discuss with the participants the importance of biodiversity in general and wildlife in particular using the following guide questions:
   a. What plant and animal species comprise the village forest?
   b. What are the different uses of these species?
   c. What percentage of the village diet consists of wildlife?
   d. What are the effects of hunting on wildlife populations?

2. Discuss with participants the main reasons for hunting.

3. Using the above and other examples, discuss with participants the effects of over-hunting on the forest resource.
Lesson 2.10.2.5
Review of existing practices, rules, and issues related to hunting and biodiversity conservation

Objectives

At the end of the lesson, the participants will have:
1. Identified and assessed the existing practices and rules related to hunting and biodiversity conservation.
2. Understood the issues and problems related to hunting and biodiversity conservation.

Methods

Lecture, discussion, and group work

Materials

Decree No. 118 of the Council of Ministers; MAF Order No. 54; Presidential Order No. 125; MAF Decree No. 1074; Forestry Law; List of species identified in Dong Sithouane Wildlife Survey of significant conservation value

Time

2 hours

Process

1. Ask participants to list the names of species that are hunted for subsistence use and for trade. Record answers in the table provided.

2. Ask participants to discuss the hunting practices (when, where and by whom) and any rules about hunting these species within the village. Record answers in the table provided.

3. Discuss changes in hunting patterns over time (if any). What has been the cause of these changes (e.g. changes in law enforcement, changes in populations)?

4. Review the relevant sections of the Forestry Law and related legislation.

Learning notes

Guide questions on current hunting practices
1. Who has the right to hunt within the village boundaries?
2. Do other villages have the right to hunt in the village forest?
3. Are there any village rules and regulations regarding hunting in the village at present?
4. How are hunting rights enforced?
5. Have there been changes over time in the methods used to hunt?
6. Is hunting primarily for subsistence or is hunting practiced for trade?
7. Has there been a voluntary gun collection in the village? Organized by whom?
8. What was the reason for the gun collection campaign?
Example of a table to record species and hunting practices

<table>
<thead>
<tr>
<th>Species</th>
<th>When</th>
<th>Where</th>
<th>How</th>
</tr>
</thead>
<tbody>
<tr>
<td>Squirrel</td>
<td>All year</td>
<td>HF</td>
<td>Cross Bow, Slingshot</td>
</tr>
</tbody>
</table>
Lesson 2.10.2.6
Writing the village rules on hunting and biodiversity conservation

Objective

At the end of the lesson the participants should be able to write new or improved guidelines and rules on hunting and biodiversity conservation.

Methods

Lecture and discussion

Materials

Outputs from Lessons 2.10.2.4 and 2.10.2.5

Time

2 hours

Process

Using the guide questions below, discuss with and ask the participants to write new or improved village rules on hunting and biodiversity conservation.

1. How is hunting to be defined? Does it include snares? Traps? Poison?
2. What types of hunting activities are strictly forbidden?
3. Where is hunting permitted or prohibited?
4. Who has the right to hunt?
5. Are there certain times of the year that hunting is or should be prohibited?
6. To whom will violations be reported?
7. Do people from other villages have hunting rights within the village forest?
8. How will this right be enforced? Protected?
9. Who will have responsibility for ensuring that the rules are applied?
10. Is there a need for monitoring teams?
11. When will monitoring activities occur?
12. How will teams be compensated?
13. What information will be reported? How? To whom?
14. In the case of a village cluster, how will rules be prepared and enforced?
Lesson 2.10.2.7
Understanding the importance of conserving the soil

Objectives

At the end of the lesson, the participants should be able to:
1. Understand and explain the status and extent of soil erosion in the village.
2. Explain the importance of controlling soil erosion.

Method

Group discussion

Materials

Village land-use map, large brown sheets of paper, crayons, pencils, pens, and masking tape

Time

1 hour

Process

1. Ask the participants to list the places in the village where soil erosion is visibly taking place, e.g. badly eroded road sections cut by concentrated surface run-off of water. What are the causes of the soil eroding? How much has soil erosion progressed over time?

2. Discuss and list (write down) the effects of unabated soil erosion.

3. Discuss the importance of controlling soil erosion.
Lesson 2.10.2.8
Review of existing practices, rules, and issues related to soil conservation

Objectives

At the end of lesson, the participants should be able to:
1. Explain any existing procedures, practices, and rules related to controlling soil erosion.
2. Explain the issues and problems related to soil erosion.

Methods

Group discussion and problem tree analysis

Materials

Village forest management plan, annual operations plan, village land use plan, any existing village rules related to controlling soil erosion
Large brown sheets of paper, color paper, scissors, glue, marker, pen, and masking tape

Time

1 hour

Process

1. Based on the discussion in Lesson 2.10.2.7, ask the participants to discuss the existing procedures and practices related to soil erosion control using the following guide questions:
   a. What are the existing procedures in the village on controlling soil erosion?
   b. Who controls and monitors soil erosion in the village?
   c. What are the existing soil erosion control practices and techniques used in the village?

2. Discuss with the participants the existing land and water management practices, the issues and problems related to soil management, and what the village forest management plan, annual operations plan, and related government laws and regulations say about the matter.

3. Ask the participants to review any existing village rules related to soil erosion control using the following guide questions:
   a. Are these rules effective or ineffective? Why?
   b. What are the changes needed to improve these rules?
   c. Who monitors and controls the implementation of these rules?
   d. Do the village rules contain these items?
      • Criteria or guidelines for assessing the extent of the problem (e.g. who does what, where, when, and how to assess soil erosion)
      • Prioritizing eroded sites to be corrected and time of the year for making the corrections
Lesson 2.10.2.9
Formulating a village program on soil conservation

Objective

At the end of the lesson the participants should be able to formulate a village soil erosion monitoring and control program.

Methods

Group discussion and supervised group work

Materials:

Paper, tracing paper, color pens, pencils
Village forest management map

Time

2 hours

Process

1. Ask the participants to trace the village forest management plan map and to indicate on the map the soil erosion problem areas.

2. Based on the results of the review and discussions in Lessons 2.10.2.7 and 2.10.2.8, ask the participants to formulate a village soil erosion monitoring and control program, which should cover:
   a. The program objectives
   b. Identification and monitoring of problem areas
   c. Actions to check soil erosion to protect waterways in identified sites
   d. Setting of priorities on actions to be taken
   e. Timed program for implementing the identified actions
   f. Organizing the village for monitoring soil erosion and undertaking corrective actions
   g. Whether labor is voluntary or paid and the budget for the activities

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