

CB-NRM Operation Manual

Operation Manual for Establishment of the CB-NRM Mechanism at the Village Level



Prepared by

**The Project for Community-Based Sustainable Natural Resource
Management in the Democratic Republic of Timor-Leste**



From
the People of Japan

FOREWORD

Forest degradation and deforestation is one of the critical issues that the Government of Timor-Leste (GoTL) needs to tackle to achieve sustainable socio-economic development in the country. The study made in 2013 shows that approximately 184,000 ha of forest has disappeared between 2003 and 2012 and around 170,000 ha of dense forest has been degraded into sparse canopy forests for the same period.

Community-Based Natural Resource Management (CB-NRM) is an approach to nature conservation by recognizing the rights of local communities to benefit from sustainable management of natural resources (forests, lands, water, and biodiversity) within a designated area. This is an alternative to a top-down regulatory approach, which has not been necessarily effective in many countries, especially when the regulations do not fully cope with the changes in social, cultural, and economic contexts in the countries.

The Project for Community-Based Sustainable Natural Resource Management (the CB-NRM Project) jointly implemented by the Japan International Cooperation Agency (JICA) and the Ministry of Agriculture and Fisheries (MAF), particularly the National Directorate of Forest and Watershed Management (NDFWM), has developed an operative mechanism for CB-NRM in Timor-Leste. The same project has also issued the following manuals over the course of the project to help MAF expand the same mechanism in major river basins in the country.

- ◆ Operation Manual for Establishment of the CB-NRM Mechanism at the Village Level
- ◆ CB-NRM Technical Manuals
 - Vol. 1: Seedling Production and Tree Planting Promotion
 - Vol. 2: Sustainable Upland Farming Promotion
 - Vol. 3: Income Generating/Livelihood Development
- ◆ Manual for Formation of a Watershed Management Council

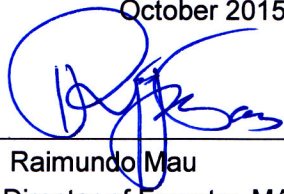
Among other things, the Operation Manual is a key document which describes the overall process of and detailed procedures for putting the mechanism for sustainable natural resource management in place at the village level. The contents of the manual are based on learning from experiences in the field. Hence, we, as representatives of the MAF, strongly recommends that the manual must be widely used by field practitioners of not only MAF but also other organizations working in the forestry sector as a guiding tool for sustainable management of lands and forests in Timor-Leste.



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October 2015



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About the CB-NRM Manuals

The CB-NRM Manuals have been developed and published by the JICA and MAF Joint Project named the Community-Based Sustainable Natural Resource Management to provide practical and useful tools for planners and practitioners in the forest sector in Timor-Leste to enable them to protect and manage natural resources in a collaborative and sustainable manner. There are three (3) types of manuals as shown below.

- i) Operation Manual for Establishment of the CB-NRM Mechanism at the Village Level
- ii) CB-NRM Technical Manuals
 - Vol. 1: Seedling Production and Tree Planting
 - Vol. 2: Sustainable Upland Farming Promotion
 - Vol. 3: Income Generating/Livelihood Development
- iii) Manual for Formation of the Watershed Management Council

The Operation Manual is the main document which spells out the standard operation procedures for introduction and establishment of the CB-NRM mechanism at the village level. It is designed for use by planners, field practitioners, and researchers working/studying in the forest sector in Timor-Leste, especially those who engage in forest protection, watershed conservation, and community forestry in the National Directorate of Forest and Watershed Management (NDFWM).

The CB-NRM Technical Manuals supplement the Operation Manual by introducing relevant techniques and skills which can help rural communities use and manage natural resources, especially lands and forests, in a productive and sustainable manner. They will be used mainly by field extension workers (such as MAF municipal staff: namely, municipal officers, extension officers, and forest guards) and NGO staff, as technical references for their field works.

The Manual for Formation of the Watershed Management Council introduces the process to develop a collaboration platform/framework for sustainable natural resource management at the sub-municipal or sub-watershed level, which can also lay groundwork for expansion of the CB-NRM mechanism on watershed scale. As one of the key approaches to improvement of environmental governance at the watershed level by enhancing coordination and networking among local stakeholders, this manual can be of help for those who engage in watershed management.

Furthermore, the JICA and MAF Joint Project has also developed and issued simplified versions of those manuals to help users in the field easily follow the procedures or apply the techniques described in the manuals.

It is hoped that these manuals with their simplified versions will serve as practical references for a wide range of stakeholders in the forest sector in Timor-Leste.

Operation Manual for Establishment of the CB-NRM Mechanism at the Village Level

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1. Introduction

1.1 Background

Between 1972 and 1999, the Democratic Republic of Timor-Leste (Timor-Leste) had reduced its forest cover at a rate of 1.1% per annum or by 24% in total during the period. The latest assessment made by JICS (Japan International Cooperation System)¹ revealed that about 184,000 ha of forests had disappeared between 2003 and 2012 and about 170,000 ha of dense forests had been degraded to sparse forests for the same period. Due to constant deforestation, the total forest coverage became about 50% of the whole country (740,000 ha) in 2012.

Deforestation and forest degradation have been mainly caused by human economic activities, such as i) burning of forest, ii) tree cutting for firewood collection, iii) shifting cultivation, and iv) uncontrolled illegal logging. Deforestation and forest degradation have further caused soil erosion, landslides and flash floods, which have eventually affected the lives of people residing in not only hilly and mountainous areas but also lowlands. Although the Government of Timor-Leste (the GoTL) has made efforts to reduce the progress of deforestation and forest degradation, the situation has not been improved or rather gotten worse as the GoTL has not been able to take effective measures due to the inadequate institutional setup and lack of human resources in the government.

The Japan International Cooperation Agency (JICA) has assisted the GoTL in sustainable management of forest resources in the Laclo and Comoro river basins introducing a concept of community-based natural resource management (CB-NRM) since November 2005. The Ministry of Agriculture and Fisheries (MAF) and the National Directorate for Forestry (NDF), which split into two national directorates (i.e., the National Directorate of Forest and Watershed Management (NDFWM) and the National Directorate of Forest Conservation (NDFC)) in October 2014, have worked with JICA to tackle this difficult issue since then. As a result of the continuous efforts, a JICA and MAF joint project, named “The Project for Community-Based Sustainable Natural Resource Management” (hereinafter referred to as “the JICA CB-NRM Project”), has developed and demonstrated a mechanism on community-based sustainable natural resource management (hereinafter referred to as “the CB-NRM mechanism”) where forest-based natural resources could be managed and protected by local communities in a sustainable manner.

This is an operation manual that describes the detailed procedures for introduction and establishment of the CB-NRM mechanism at the village level. The manual was first drafted in October 2013 based on the field experiences of the JICA CB-NRM Project in its target villages. In May and June 2015, it was reviewed, revised and refined by referring the results of additional field trial made in 2014 and consultations with relevant stakeholders held at both central and district levels in 2015.

1.2 Objectives of the Manual

The main objective of the operational manual is to guide field workers, planners, and experts working in the forest and agriculture sectors in Timor-Leste on how to put the CB-NRM mechanism in place at the village level. The manual clarifies the effective procedures for

¹ An forest assessment study was conducted by the consultants hired by JICS under the Japan’s Grant Aid Program named the Forest Conservation Program in the Democratic Republic in Timor-Leste” in 2012.

introduction and institutionalization of the mechanism in a participatory manner. Specifically, the manual shall specify the procedures for:

- i) development of a future land use plan with village regulations of a village through participatory land use planning (PLUP);
- ii) institutionalization of village regulations as functional rules of a village and enhance the capacity of village leaders to govern a village using the regulations; and
- iii) selection and implementation of agricultural and forestry extension services or micro programs effective in attaining the goal of a future land use plan of a village.

1.3 Coverage/Targets of the Manual

This manual targets all the personnel who work in the forestry and agriculture sectors in Timor-Leste, especially in the fields of community forestry, community-based natural resource management, and sustainable forest management. Particularly, technical and planning officers/staff belonging to the following organizations could be the main users of the manual.

- a. National Directorate of Forest and Watershed Management
- b. National Directorate of Nature Conservation
- c. National Directorate of Extension and Development of Agricultural Communities
- d. District MAF Offices
- r. National Directorate for Environmental Services, Ministry of Economy and Development
- f. NGOs
- g. International Organizations/Donors and their funded projects

1.4 Composition of the Manual

The manual composed of six (6) chapters. Chapter 1 gives the background and objective of the manual, while Chapter 2 introduces the guiding principles on which the manual is based. Overall framework and outlines of the CB-NRM mechanism that the manual intends to promote are described in Chapter 3. The procedures for introduction, institutionalization, and maintenance of the CB-NRM mechanism at the village level are spelled out in Chapters 4 and 5. The last chapter, Chapter 6, introduces a system for implementation of this manual with an institutional framework and arrangements necessary for effective implementation.

2. Guiding Principles of CB-NRM

The main aim of CB-NRM is to strengthen the governance capacity of local communities, particularly village leaders, in rural areas of the country so that forests and other natural resources can be protected and managed in a proper and sustainable manner. To this end, the following guiding principles are to be adopted for introduction and establishment of the effective and operational CB-NRM mechanism at the village level.

2.1 Community Participation

Community participation is one of the requisite process to be employed throughout the process of establishing the CB-NRM mechanism. Local communities, especially village leaders, shall be actively involved from the beginning to the end of the process since they must play a crucial role as decision makers. Careful attention should be paid to communities' participation and initiatives in discussions, decision making, and implementation of agreed activities in the whole process. In principle, no activity shall be done without participation of local communities.

2.2 Community Empowerment and Capacity Development

Likewise, the empowerment of local communities, especially village leaders, is a key to the successful institutionalization of the CB-NRM mechanism at the village level. Unless local communities are granted a legitimate right to use and manage forests and natural resources in the respective localities, they are not willing to protect natural resources on their own initiatives. In parallel with the empowerment of local communities, emphasis should be placed on capacity building of local communities to enable them to manage natural resources in a village in a sustainable manner.

2.3 Equity

The CB-NRM mechanism should not benefit any specific persons/groups, regardless of sex, religion, age, wealth, and status in the community. All communities in a village should have equal rights to take part in the process and get equal benefit from the CB-NRM activities. In fact, the CB-NRM mechanism would rather benefit communities who live at the subsistence level since forests and its related natural resources play important roles in maintaining and safeguarding their livelihoods.

2.4 Utilization of Customary Rules and Traditional Knowledge

The main difficulties that MAF and NDFWM/NDFC have faced in protection of forests are the inadequate legislative set-ups and limited human resources at both central and local levels. Due to such difficulties, it is less likely that MAF and NDFWM/NDFC could remedy the situation and prevent further forest degradation in a short period of time.

On the other hand, almost all the upland villages in Timor-Leste still are aware of their customary rules/norms which used to be effective in regulating communities' activities in the past, although the effectiveness of those rules has been weakened since 1975 when the inherited customary systems were replaced with those introduced by the Indonesian government. In the current circumstances, the reinforcement and reactivation of such customary rules/norms along with strengthening of the capacity of village leaders is one of the possible measures to be taken to reduce the progress of deforestation and forest

degradation at the village level as the solidarity among communities is still strong in most of the upland villages.

Traditional knowledge and practices effective in sustainable forest and natural resource management should be fully utilized in addition to customary rules/norms. The CB-NRM mechanism should not oppose but rather synchronize traditional practices useful for sustainable natural resource management.

2.5 Ensuring of Consistency with Government Policies, Laws and Regulations

The CB-NRM mechanism should be in line with the existing government laws and regulations. In particular, the mechanism should be consistent with the National Forest Sector Policy and the Forest Management Bill.

3. Framework of the CB-NRM Mechanism at the Village Level

3.1 Objectives

The principle objective of the CB-NRM mechanism is to ensure that village leaders and local communities could properly protect and manage natural resources, such as forests, waters, and lands, in a village in collaboration with MAF and NDFWM/NDFC. Specifically, the mechanism aims to:

- a. develop an enabling environment for CB-NRM at the village level by developing a future land use plan with village regulations through a series of discussions with village leaders and local communities;
- b. empower local communities, especially village leaders, to protect, manage and use forests and other natural resources in the locality;
- c. enhance the capacity of local communities, especially village leaders, to properly manage forest and other natural resources in a wise and sustainable manner in accordance with the village regulations and future land use plan;
- d. improve livelihoods of local communities by enabling them to enhance land productivity, increase the production of staple and cash crops, and introduce high-value trees (industrial and fruit trees) in a village;
- e. Establish a framework where MAF and NDFWM/NDFC and local communities can work on sustainable forest and natural resource management balancing with livelihood development of local communities.

3.2 Scope of the Work and Key Steps in the Process

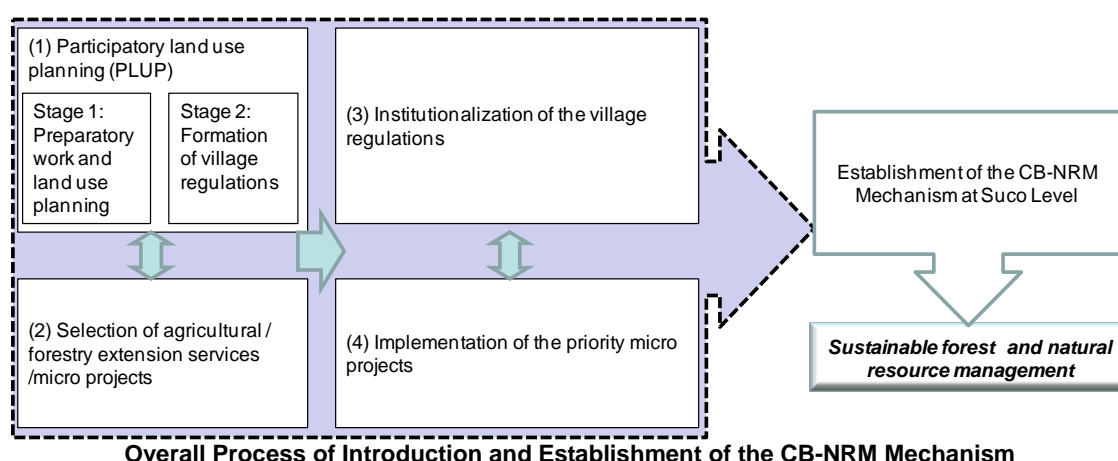
(1) Scope of CB-NRM Mechanism

The CB-NRM mechanism introduced in this manual shall deal with forest-related resources: namely i) forests including non-timber forest products, ii) lands, and iii) water sources. In principle, the CB-NRM mechanism is applicable to villages located in hilly and mountainous areas in the Lalco and Comoro river basins, since the mechanism has been put into practice in the selected villages in the same river basins so far. Nevertheless, the mechanism can be likely adopted in other river basins to promote sustainable forest management as long as communities in villages still have senses of solidarity and ownership over natural resources in their localities.

A village is the reasonable size for introduction of the CB-NRM mechanism. In fact, a sub-village is too small to introduce and it causes rather high transaction cost, while a sub-district is too large to make the mechanism effective and operational.

(2) Overall Process

The JICA-MAF CB-NRM Project has put a series of participatory activities to trial in six (6) villages in the Laclo and Comoro river basins. The results of such field trials revealed that the following process would be effective in the establishment of the CB-NRM mechanism at the village level.



Source: JICA Project Team (2015)

Each process is composed of a series of community-based activities as listed below.

Key Processes and Steps/Activities associated with the respective Processes

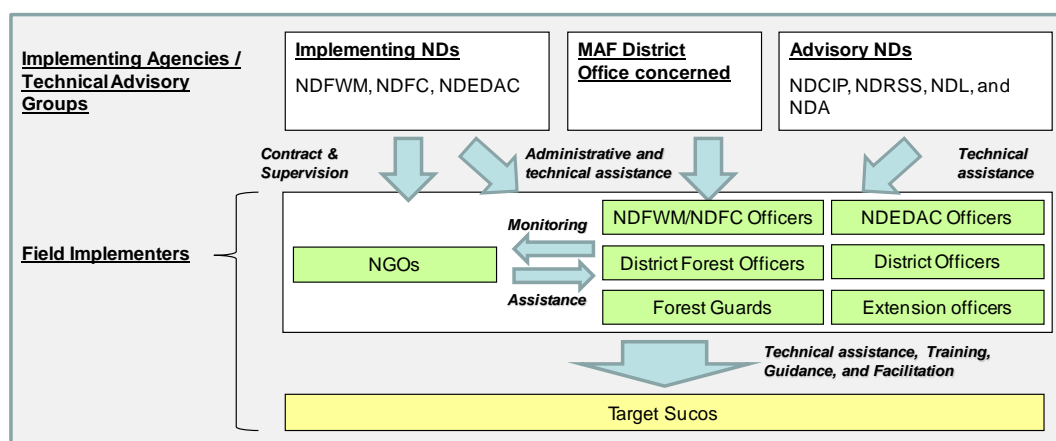
Phase	Process	Stage/Steps
1. Assessment and planning	1.1 Participatory land use planning	<u>Stage 1: Preparatory works and land use planning</u> Step 1 Consultation with local leaders Step 2 Organization/Formation of the working group Step 3 Study tour to one of the JICA project villages Step 4 Present land use mapping Step 5 Future land use planning <u>Stage 2: Formulation of village regulations</u> Step 1 Review of the past and existing rules Step 2 Discussion of the draft village regulations Step 3 Review of the draft village regulations with future land use plan Step 4 Consultation with communities about the draft village regulations Step 5 Preparation for enforcement of the regulation in a traditional manner Step 6 Organization of Tar Bandu ceremony
	1.2 Selection of agriculture and forestry extension services/micro programs for achievement of a future land use plan	<u>Preparatory works</u> Step 1 Examination of possible extension services/micro programs for short-listing <u>Workshops/Meetings with local communities</u> Step 2 Evaluation of the short-listed extension services/micro programs for prioritization Step 3 Discussions of scope of the priority extension services/micro programs
2. Implementation and monitoring	2.1 Institutionalization of the village regulations	Step 1 Monthly monitoring meeting at suco level Step 2 Bi-monthly or quarterly meeting at aldeia level Step 3 Annual evaluation meeting at suco level
	2.2 Implementation of the priority extension services / micro programs	Step 1 Organization of farmers' / beneficiaries' groups Step 2 Preparation of a work plan in a participatory manner Step 3 Conducts of a series of hands-on training courses / farmers' field schools (FFSs) on topics related to the priority extension services Step 4 Annual evaluation and planning of the work plan

Source: JICA Project Team (2015)

The procedures for the respective steps and activities listed above are further described in Chapters 4 and 5.

3.3 Organizational Framework for Introduction and Establishment of the CB-NRM Mechanism

As described in Chapter 2, local communities in a village shall be the key players in establishment of the CB-NRM mechanism along with the MAF and NDFWM/NDFC officers. The following organizational set-up is considered effective in introduction/establishment of the CB-NRM mechanism.



Organizational Structure for Introduction and Establishment of the CB-NRM Mechanism

Note:

NDFWM: National Directorate of Forest and Watershed Management, NDNC: National Directorate of Nature Conservation, NDEDAC: National Directorate of Extension and Development of Agriculture Communities, NDCIP: National Directorate of Coffee and Industrial Plants, NDRSS: National Directorate of Research and Special Services, NDL: National Directorate of Livestock, NDCH: National Directorate of Crops and Horticulture, and NDA: National Directorate of Agribusiness

Source: JICA Project Team (2015)

The roles and responsibilities of the key players in the structure are described in Chapter 6.

3.4 Expected Outputs

The following outputs are expected to be generated as a result of establishing the CB-NRM mechanism at the village level.

- The incidence of wild fire and illegal exploitation will be reduced.
- Crop damages caused by free grazing animals and unlawful acts will be reduced.
- Local communities can easily ensure the growth of crops and trees planted in their farms since the risk of crop damage is reduced.
- Productivity of agricultural crops will increase by amendment of soil fertility, improvement of farming practices, and utilization of improved seeds and organic fertilizer.
- Less productive or unproductive lands can be utilized for production purposes, namely, timber, fruits, coffee, and fodder crops/trees production.
- Local livelihood will be improved.

Furthermore, the following impacts might be generated on a sub-district or sub-watershed scale in the long run.

- The forest coverage in the area can be maintained and rather expanded.
- Food security condition in the area can be improved.
- Soil run-off from the watershed can be reduced.
- Socio-economic conditions in the area can be improved.

3.5 Timeframes of the Processes

Participatory Land Use Planning (PLUP) should be first carried out as an entry point activity of the entire process. It is followed by the selection of agriculture and forestry extension services as the outputs from PLUP, such as a present land use map and a future land use plan, can provide useful insights into potential agriculture and forestry extension services in the respective localities. After selection of the extension services and announcement of the village regulations in a traditional ceremony (*Tara Bandu* ceremony), the implementation of the priority micro programs and institutionalization of the village regulations will start, respectively, as shown below.

Process	Stage	Year 1												Year 2												Year 3											
		4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12			
1. Participatory land use planning	Stage 1	■	■	■																																	
	Stage 2				■	■	■	■	■																												
2. Selection of agriculture and forestry extension services / micro programs																																					
3. Institutionalization of the village regulations																																					
4. Implementation of the priority extension services / micro programs																																					

Overall Implementation Schedules of the Respective Processes (Standard Version)

Source: JICA Project Team (2015)

Although the phased implementation as shown above is more realistic in consideration of the capacity of the stakeholders (i.e., MAF, NDFWM/NDFC, NGOs, and local communities), the process, particularly PLUP, seems to be rather prolonged. To shorten the timeframe of the entire works, the selection of the extension services can start immediate after the end of land use planning simultaneously with the sessions for formulation of village regulations. By doing so, MAF and NDFWM/NDFC can start the selected extension services (or micro programs) before the end of the whole process of PLUP. If PLUP starts in May, the extension services could begin in August/September in the same year.

Process	Stage	Year 1												Year 2												Year 3											
		4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12			
1. Participatory land use planning	Stage 1	■	■	■																																	
	Stage 2				■	■	■	■	■																												
2. Selection of agriculture and forestry extension services / micro programs																																					
3. Institutionalization of the village regulations																																					
4. Implementation of the priority extension services / micro programs																																					

Overall Implementation Schedules of the Respective Processes (Rapid Version)

Source: JICA Project Team (2015)

Such arrangements could be possible on condition that field implementers (e.g., MAF and NDFWM/NDFC officers, NGOs, and village leaders) are capable enough to properly manage the activities and allocate necessary resources on a timely manner. Hence, the way of the implementation shall be determined in consideration of the following conditions:

- Capacity of the implementing organizations (MAF/NDFWM/NDFC officers and/or NGOs);
- Busyness of local communities, especially village leaders;
- Cooperation and leadership of village leaders;
- Timeframe given to the work; and
- Availability of resources (human resources, transportation means, and budget) of the implementing organizations.

4. Procedures for Introduction of the CB-NRM Mechanism at the Village Level in the Planning and Assessment Phase (Phase 1)

This chapter introduces the procedures for the following activities which aim to introduce the CB-NRM mechanism in the assessment and planning phase.

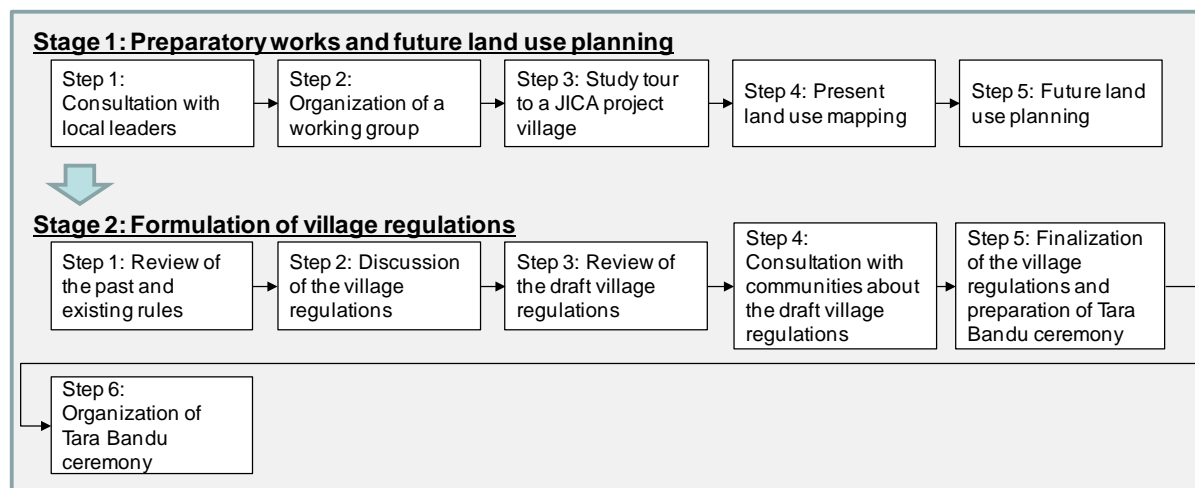
- a. Participatory land use planning (PLUP)
- b. Selection of agriculture and forestry extension services (micro programs)

4.1 Phase 1.1: Participatory Land Use Planning (PLUP)

Participatory land use planning (PLUP) is an interactive process to create an enabling environment where village leaders can use and manage natural resources (i.e., land, forest, and water) in a wise and sustainable manner. PLUP specifically aims to:

- a. Help village leaders and local communities analyze the past and current use and management of natural resources in the localities;
- b. Provide them technical guidelines on proper and sustainable use of natural resources;
- c. Encourage them to develop a future land use plan and village regulations to enable them to protect and manage natural resources on their own initiatives;
- d. Capacitate them to manage natural resources in a proper and sustainable manner.

As a nature of the activity, its process is composed of a series of dialogues/discussions among local communities who have traditionally used natural resources. As illustrated below, the process consists of two (2) stages which further consist of 11 steps in total: Stage 1) Preparatory works and future land use planning and Stage 2) Formulation of village regulations.



Steps to be Taken in PLUP

Source: JICA Project Team (2015)

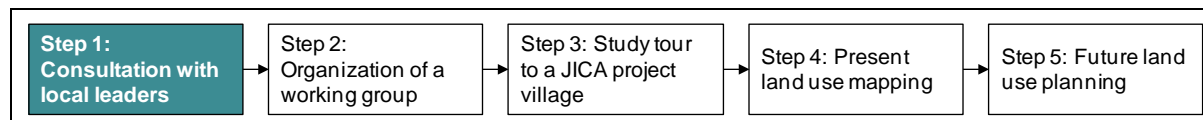
As described in Chapter 3, it is possible that the next process, namely the selection of agriculture and forestry extension services, could begin immediately after the end of Stage 1, as long as two types of works could be carried out simultaneously in the same village: i) selection of the extension services and ii) formulation of village regulations.

More details of the implementation procedures for the respective phases and steps of PLUP are described in the following sections.

4.1.1 Stage 1: Preparatory Works and Future Land Use Planning

【Phase 1.1-Stage 1-Step 1】 Consultation with Local Leaders

As the first step of the activities, a consultation meeting shall be held with village leaders of a target village to consult with them about the possibility of the conduct of PLUP.



(1) Objectives

The main objective of the consultation meeting is to obtain prior consent from village leaders on the conducts of the activities for introduction and establishment of the CB-NRM mechanism, especially those related to PLUP. Hence, the meeting shall introduce and discuss the key points of the activities, which include, but not limited to, the following:

- Aims of CB-NRM and outline of PLUP (objectives, major activities, and roles/responsibilities of local communities);
- Schedule of the activities/meetings planned in PLUP;
- Persons / groups working in a village for PLUP; and
- Expected outputs / results from PLUP.

(2) Expected Participants

Village leaders, namely the members of the village council, shall attend the meeting. Additionally, leaders of kinship groups (*uma lisan*) and other key persons (e.g., large land owners) shall be preferably involved in the meeting.

(3) Timeframe and Venue

A half day or one day meeting shall be held at the office of suco.

(4) Proposed Agenda of the Meeting

The following is the standard agenda for the meeting.

Standard Agenda for the Consultation Meeting

Timeframe	Activity	Resource person
10:00-10:15	Session 1: Introduction (NDF/MAF group with NGO and purpose of the meeting)	NDFWC/District Forest Officers Facilitators/NGO
10:15-11:00	Session 2: Concepts and outline of CB-NRM activities	ditto
11:00-11:15	Coffee break	-
11:15-12:00	Session 3: Major activities planned in PLUP with its work schedule	NDFWC/District Forest Officers Facilitators/NGO
12:00-13:00	Questions and answering Session 4: Consultation with local leaders about the acceptance of CB-NRM activities	ditto
13:00-14:00	Lunch	-

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

The consultation meeting shall be carried out in the following procedures.

- Session 1: Introduce the members who visit a village and explain the purpose of the meeting to the participants.

Session 2: Introduce to the participants the concept, objective, overall process of CB-NRM, and expected results/outputs from the CB-NRM activities by sharing the experiences in the six (6) project villages where the JICA CB-NRM Project have worked.

Session 3: Explain to them the major activities (e.g., meetings and workshops) of PLUP, schedule of the activities, and expected roles and responsibilities of local communities, NDFWM/NDFC, District MAF offices concerned, and NGO in the course of PLUP.



Session 4: Confirm village leaders' acceptance of the conduct of PLUP and other CB-NRM activities.

During the meeting, the discussion shall be taken down in flipcharts and a notebook.

(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

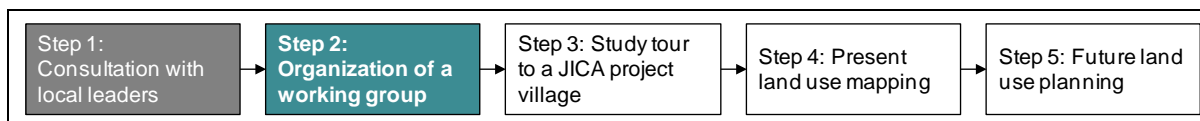
- a. NDFWM/NDFC Officer/s, District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO
- c. Pre-made explanatory material transcribed on flipcharts, which show the aims and major activities of CB-NRM, outline of PLUP, and schedule of the activities
- d. Flipcharts
- e. Felt-type pen
- f. Masking tape
- g. Snack, water and lunch for participants

(7) Expected Outputs

Unanimous consent on the CB-NRM activities, especially the conduct of PLUP activities, will be obtained from the participants.

【Phase 1.1-Stage 1-Step 2】 Formation of the Working Group in a Village

A working group which will be a core body for discussions and meetings of PLUP shall be formed in consultation with village leaders.



(1) Objectives

The main objective of this step is to form a working group composed of the members of village council, namely village head (*chef de suco*), sub-village heads (*chefs of aldeia*), village traditional mediator (*ancion*), women's representative, youth's representatives, catechesis (*catakist*), and village secretary. Other important stakeholders on natural resource management in a village (e.g., leaders of kinship groups, large land owners, and sub-village traditional mediators) shall also be involved in the group with clarification of their roles and responsibilities in the process of PLUP. The total number of the members of the working group should be 20 to 25 in principle.

(2) Expected Participants

The same persons who will be the members of the working group shall participate in the meeting.

(3) Timeframe and Venue

One (1) day meeting shall be held for this step.

(4) Proposed Agenda of the Meeting

The following is the standard agenda for the meeting.

Standard Agenda for the Meeting for Formation of a Working Group

Timeframe	Activity	Resource person
10:00-10:15	Session 1: Introduction of the objective of the session	NDFWC/District Forest Officers Facilitators/NGO
10:15-11:15	Session 2: Necessity of formation of a working group and members to be involved in the group	Facilitators/NGO
11:15-11:30	Coffee break	-
11:30-12:30	Session 3: Roles and responsibilities of the members	Facilitators/NGO
12:30-13:30	Lunch	-
13:30-14:30	Session 3: Roles and responsibilities of the members	Facilitators/NGO
14:30-15:00	Wrap up of the meeting	NDFWC/District Forest Officers Facilitators/NGO

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

The meeting and discussions for formation of a working group shall be conducted in accordance with the following procedures.

Session 1: Explain the purpose, timeframe, and expected outputs of the workshop to the participants.

Session 2 (1): Explain the necessity of



formation of a working group placing an emphasis on its expected functions in the process of PLUP.

Session 2 (2): Advise village leaders to select the following persons as members of a working group.

- Village head (*Chef de Suco*)
- Sub-village heads (*Chefs de Aldeia*)
- Village traditional mediator (*Ancion*)
- Catechesis (*Catakist*)
- Women's representative
- Youth's representatives
- Village secretary
- Heads of kinship groups (*Uma Lisan*)
- Large land owners
- Sub-village traditional mediators (*Lia Nain*)
- Any persons who might have an influence on forests and other natural resources in a village

Session 3: Discuss roles and responsibilities of the respective members of the working groups.

Tips on discussion

*At the beginning, you should ask the participants to tell their ideas on the roles and responsibilities of the respective members. In case that the ideas given by the participants are insufficient or inappropriate, you should give some clues and ideas referring the roles and responsibilities defined by the JICA-MAF CB-NRM Project as shown in **Appendix-4.1** in this manual.*

Discussions made in the meeting, especially in session 3 above, should be taken down in flipcharts and a notebook.

(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- a. NDFWM/NDFC Officer/s, District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO
- c. Flipcharts
- d. Felt-type pen
- e. Snack, water and lunch for participants

(7) Home Works after the Meeting

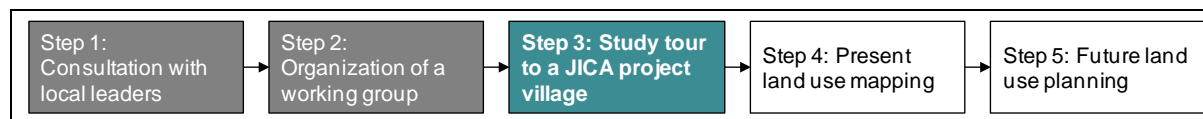
The results of the discussions in the meeting should be compiled into a format similar to **Appendix-4.1** to share a member list with roles of the members with members of the group.

(8) Expected Outputs

A list of members of the working group with the roles and responsibilities of the respective members will be prepared through the meeting.

【Phase 1.1-Stage 1-Step 3】 Study Tour to the JICA Project Village

The members of the working group shall be taken to one of the JICA-MAF CB-NRM Project villages where the CB-NRM mechanism has been in place in the course of the project.



(1) Objectives

The main objective of the study tour is to help the members of the working group have a clear picture of how the CB-NRM mechanism, particularly PLUP, has changed the situations of the village and improved local livelihoods of communities by having dialogues with local communities in the host village and observing the situations in the field.

(2) Expected Participants

About 10 members of the working group shall be selected for the tour.

(3) Timeframe and Venue

One (1) day is used for a field visit and dialogues with communities in the host village. Another one (1) or two (2) day/s may be needed for travels before and after the tour.

(4) Proposed Agenda of the Session

The following is the standard agenda for the meeting.

Standard Agenda for the Study Tour

Timeframe	Activity	Resource person
10:00-10:30	Session 1: Introduction (Participants and objectives of the tour)	NDFWC/District Forest Officers Facilitators/NGO
10:30-12:30	Session 2: Sharing of experiences of the CB-NRM activities - Outline and effectiveness of the village regulations and future land use plan - Major activities conducted in the process of PLIP - Roles and responsibilities of the village leaders - Any government supports obtained - Lessons learned (including coffee break)	Facilitators/NGO Villagers of the Host Village
12:30-13:30	Lunch	-
13:30-14:30	Session 3: Questions and answer	Facilitators/NGO
14:30-15:30	Session 4: Field observation	ditto
15:30-16:00	Closing	NDFWC/District Forest Officers Facilitators/NGO

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

A meeting with communities in the host village shall be conducted according to the following procedures.

Session 1 (1): Introduce the participants (the members of the working group) in the study tour to communities in the host village and vice versa.



Session 1 (2): Explain the purpose, timeframe, and expected outputs of the tour to the participants.

Session 2: Ask village leaders or communities in the host village to explain to the participant in the study tour the process and outline of the CB-NRM mechanism putting emphasis on the following points:

- Outline of the village regulations and future land use plan;
- Results or any changes that they have seen since the village regulations were in place;
- Major activities that they have engaged in since the beginning,
- Major roles of village leaders and other members of the group in the preparation and enforcement of the village regulations;
- Coordination with government or other external supporting organizations for effective implementation of the village regulations; and
- Lessons learned and good practices obtained from the process of PLUP and other CB-NRM activities.

Tips on discussion

In the discussion, you should let village leaders or communities in the host village explain the matters listed above to the participants. The members of the working group should have opportunities to see the future land use plan and village regulations in parallel with have dialogues with host communities in the meeting. It would help the participants have a clear image of the major outputs of the activities.

Session 3: Facilitate the discussions between the members of the working groups and those in the host village.

Session 4: Take the participants to the demonstration plots and individual farms where CB-NRM techniques, e.g., soil conservation measures and/or planting of timber and industrial/fruit trees, were already applied.

(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

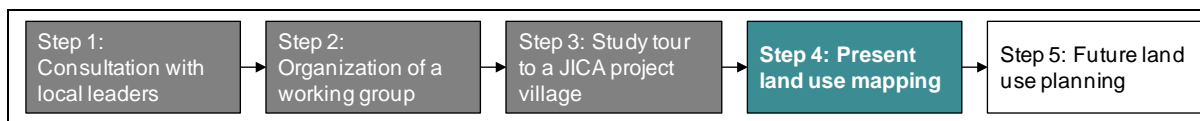
- a. NDFWM/NDFC Officer/s, District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO
- c. Transportation means for the participants
- d. Chairs and venue for the meeting in the host village
- e. Copies of the village regulations with future land use map of the host village
- f. Snack, water and lunch for participants
- g. Accommodations for the participants, if necessary

(7) Expected Outputs

The members of the working group could deepen their understanding of the CB-NRM mechanism, especially PLUP, in terms of its activities, possible outputs, and their roles in the process.

【Phase 1.1-Stage 1-Step 4】 Present Land Use Mapping

The working group shall identify the land use patterns in a village and depict the boundaries of the present land uses using an aerial photo with the assistance of facilitators/NGO.



(1) Objectives

The main aim of the meeting is to help the members of the working group assess the current land use patterns in a village and make a present land use map using an aerial photo covering the territory of a village. As the present land use map will be used as a base map for future land use planning in the following step of PLUP, the session also aims to help the members:

- understand the current land and resource uses in their locality;
- demarcate the boundaries of land use patterns on an aerial photo covering a village;
- add/depict major landmarks and other information of forest and other natural resources in a village onto the aerial photo; and
- identify critical places where wild fires have often taken place.

(2) Expected Participants

All the members of the working groups shall participate in the meeting.

(3) Timeframe and Venue

A two (2)-day meeting shall be held at the village office.

(4) Proposed Agenda of the Meeting

The following is the standard agenda for the meeting.

Standard Agenda for the Meeting for Present Land Use Mapping

Day 1

Timeframe	Sessions	Resource person
10:00-10:30	Session 1: Outline of the session (objectives, activities and timeframe)	NDFWC/District Forest Officers Facilitators/NGO
10:30-11:00	Session 2: Presentation of an aerial photo map and resource map (if available)	Facilitators/NGO
11:00-11:15	Coffee Break	-
11:15-12:30	Session 3: Depicting major landmarks onto aerial photo map	Facilitators/NGO
12:30-13:30	Lunch Break	-
13:30-16:30	Session 4: Demarcation of the boundaries of land use onto an aerial photo	Facilitators/NGO

Day 2

Timeframe	Activity	Resource person
10:00-10:30	Recapturing the day 1 session	Facilitators/NGO
10:30-12:30	Session 4: Demarcation of the boundaries of land use onto an aerial photo (including coffee break)	ditto
12:30-13:30	Lunch Break	-
13:30-16:00	Session 5: Classification of forest areas and addition of other information onto aerial photo map	Facilitators/NGO
16:00-16:30	Clarification and question Explanation of the next step	NDFWC/District Forest Officers Facilitators/NGO

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

An A0-size aerial photo which covers the entire territory of a village should be prepared and printed prior to the meeting. The scale of the photo shall be within the range of 1/7,500 to 1/15,000 depending the size and shape of a village.

Session 1: Explain the purpose, timeframe, and expected outputs of the workshop to the participants.

Session 2 (1): Put the A0-size aerial photo on a sheet of plywood which is larger than the aerial photo and show the participants the aerial photo (In case PRA is conducted before PLUP, a resource map of a village should be presented to the participants together with the aerial photo.).



Session 2 (2): Help the participants interpret the aerial photo.

Session 3 (1): Put an A0-size transparent plastic on the aerial photo so that the participants can draw lines and mark symbols directly on the aerial photo.

Session 3 (2): Ask the participants to put major land marks, such as: i) boundaries of aldeia, ii) rivers and streams, iii) roads, iv) settlements, v) sacred houses/places, and vi) water sources, on the transparent plastic.

Session 4 (1): Put another transparent plastic over the aerial photo.

Session 4 (2): Ask the participants to classify the territory of a village into several types of land use, such as: i) forests, ii) areas for shifting cultivation, iii) permanent farms, iv) coffee plantations, v) grasslands, and vi) others, and to demarcate the boundaries of the land uses on the transparent plastic.

Session 4 (3): Ask them to further classify forests in terms of: i) density of crown canopy of forest (i.e., dense/close, medium density, sparse, and open) and ii) types of main tree species (e.g., *Eucalyptus alba*, *Eucalyptus urophylla*, others, and mix) and add the information of forest types on the transparent plastic.

Session 5 (1): Remove the transparent plastics overlaid with the aerial photo and put a new transparent plastic on aerial photo.

Session 5 (2): Ask the participants to demarcate: i) areas used for animal grazing, ii) those for firewood collection, iii) critical places where forest fires often occur, and iv) any places categorized as communal areas on the transparent plastic.

During the session, the discussions made by the participants in the meeting shall be taken down in flipcharts, so that the participants can catch up the discussion. Notes of the discussion shall be taken at the same time.

(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- a. NDFWM/NDFC Officer/s, District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO
- c. Aerial photo at a scale of 1/7,500 ~ 1/15,000
- d. A roll of transparent plastic which can cover the A0-size aerial photo
- e. A sheet of plywood larger than the aerial photo
- f. Felt-type pens in black and other colors
- g. Masking tape
- h. Flipcharts
- i. Snack, water and lunch for participants



(7) Home Works after the Meeting

All the data and information transcribed in the transparent plastics shall be transferred to one transparent plastic by laying a new transparent plastic over those used in the field and the aerial photo and tracing the lines and symbols/land marks on the new plastic. The lines should be refined and symbols/land marks/legend of map should be developed by computer and pasted onto the new transparent plastic, so that the plastic can be finally used as a present land use map of a village by putting it on the aerial photo.



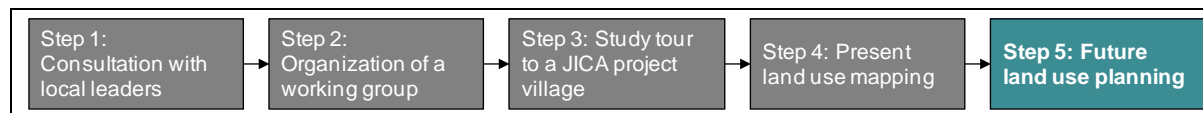
Appendix-4.2 shows a sample of the present land use map, which was prepared for one of the JICA-MAF CB-NRM Project village through the process described above.

(8) Expected Outputs

A present land use map showing the current land uses and forest types with information of other natural resources (Please refer to **Appendix-4.2.**) will be developed.

【Phase 1.1-Stage 1-Step 5】 Future Land Use Planning

The working group shall discuss and determine the future land use of a village to enable local communities in a village to maintain and improve the quality of natural resources, such as forests, lands, and springs, for the future generations.



(1) Objectives

The main objective of the meeting is to help the members of the working group assess the extent of forest and land degradation in a village and develop a future land use plan aimed at attaining sustainable management of forest-based natural resources (e.g., forests, lands, wildlife, and water) while improving local livelihoods in a village. Specifically, the meeting shall help the members:

- appreciate the environmental and economic functions that forests in a village innately own (e.g., conservation of water, protection of surface soils, and production of wood and non-wood products);
- appreciate the values of forest-based natural resources (e.g., timber trees, non-timber products, and water) available in their locality and their vulnerability when forests are degraded;
- assess the causes of forest degradation and potential adverse effects caused by forest degradation;
- examine and come up with the possible measures/approaches that they can take to maintain and improve the functions of forests and other valuable natural resources; and
- identify possible future land use options for the respective present land uses.

(2) Expected Participants

All the members of the working groups shall participate in the meeting.

(3) Timeframe and Venue

A two (2)-day meeting shall be held at the office of a village.

(4) Proposed Agenda of the Meeting

The following is the standard agenda for the meeting.

Standard Agenda for the Meeting for Future Land Use Planning

Day 1

Timeframe	Sessions	Resource person
10:00-10:30	Session 1: Outline of the meeting (objectives, activities and timeframe)	NDFWC/District Forest Officers Facilitators/NGO
10:30-11:00	Session 2: Presentation of a present land use map	Facilitators/NGO
11:00-11:15	Coffee Break	-
11:15-12:30	Session 3: Discussion on the functions and values of forests and natural resources	Facilitators/NGO
12:30-13:30	Lunch Break	-
13:30-14:30	Session 4: Discussion on current management practices of forests and natural resources	Facilitators/NGO
14:30-15:30	Session 5: Discussion on the extent / causes of degradation of forests	ditto

Timeframe	Sessions	Resource person
15:30-16:30	Session 6: Discussion on potential rules on the use and management of forests and natural resources	ditto

Day 2

Timeframe	Sessions	Resource person
10:00-10:30	Recapturing the day 1 session	Facilitators/NGO
10:30-11:30	Session 6: Discussion on potential rules on the use and management of forests and natural resources (Continuation) (including coffee break)	ditto
11:30-12:30	Session 7: Examination of the necessity to change the present land use classifications	ditto
12:30-13:30	Lunch Break	-
13:30-16:00	Session 8: Preparation of a future land use plan	Facilitators/NGO
16:00-16:30	Clarification and question Explanation of the next step	NDFWC/District Forest Officers Facilitators/NGO

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

The meeting and discussions for future land use planning shall be conducted according to the following procedures.

Session 1: Explain the purpose, timeframe, and expected outputs of the workshop to the participants.

Session 2: Present the present land use map made in Step 4 and ask the participants to confirm if the map correctly represents the current land uses in a village and the natural resources relevant to their livelihoods.



Session 3: Ask the participants to discuss and determine the functions and values of the respective land uses/forest types represented in the present land use map.

Session 4 (1): Ask them to discuss and determine the current management practices (e.g., harvesting of trees, collection of firewood, hunting, animal grazing, and collection of honey) in the respective land uses/forest types represented in the present land use map.

Session 4 (2): Ask them to evaluate the importance of the respective land uses/forest types in the present land use map.

Tips on discussion

- Prior to the meeting, you should prepare a format for discussions in sessions 3 and 4. **Appendix-4.3** shows the format used in the JICA project villages for the same purpose.*
- The format is aimed at facilitating the discussions by contrasting the current land uses with their functions, practices, and importance. It could facilitate the discussions among the participants.*

Session 5: Discuss the extent and causes of forest and soil degradation in the respective land uses/forest types, stressing the vulnerability of open areas to soil erosion or land degradation.

Session 6: Discuss and come up with potential rules (dos and don'ts) on use and management of the respective land uses/forest types as well as important natural resources (e.g., spring).

Tips on discussion

In the discussion, you should guide and help them develop rules that enable them to properly manage natural resources in line with the existing government regulations. The following are the possible rules that can be applied to natural forests with the different densities of crown canopy.

Dense forest:

i) Cutting trees, burning, animal grazing, and farming are strictly prohibited.

Moderately-dense forest

i) Cutting trees is allowed only for domestic and ritual purposes with the permission of village leaders, land owners, and MAF;

ii) Animal grazing is prohibited; and

iii) Burning and farming are strictly prohibited.

Sparse forest:

i) Cutting trees is allowed only for domestic and ritual purposes with the permission of village leaders, land owners, and MAF;

ii) Animals can be grazed in the area only during the rainy season with the permission of land owners;

iii) Burning is strictly prohibited; and

iv) Planting of fruit trees and industrial plants is allowed.

The rules on the management of other land uses shall be determined in the same manner.

Session 7: Ask the participants to examine if current land uses in a village need to be changed.

Tips on discussion

You should advise them to pay due attention to soil/land management to maintain and increase land productivity since the majority of rural areas of Timor-Leste are vulnerable to soil erosion in general. Consequently, the participants should be advised to look into the possibilities that:

i) areas currently used for shifting cultivation can be converted into more sustainable or environmentally-friendly forms, such as, coffee/fruit plantation, production forest, and/or permanent/fixed farm with agro-forestry and slope land agriculture techniques;

ii) sparse natural forests can be improved/upgraded to moderately-dense forests by planting trees of timber and other species;

iii) moderately-dense forests can be upgraded to dense forests by assisting them in the natural regeneration or planting trees;

iv) grasslands and bare lands can be reforested by planting timber or leguminous species; and

v) a certain area can be allocated exclusively for animal grazing.

Session 8 (1): Prepare a matrix shown in **Appendix-4.4**, which contrasts the present land use with the possible land use options with recommended land management practices.

Session 8 (2): Overlay a transparent plastic with the present land use map and the aerial photo and ask the participants to demarcate the boundaries of future land use options on the transparent plastic using those of the present land uses.

Like in the meeting of present land use mapping, all the discussions should be written down in flipcharts so that the members can review and understand what they discussed. Notes of the discussion shall also be taken simultaneously.

(6) Inputs (Human Resources and Materials) needed

The following inputs are needed for this step.

- a. NDFWM/NDFC Officer/s, District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO
- c. Aerial photo at a scale of 1/7,500 ~ 1/15,000
- d. Present land use map (a transparent plastic with boundaries, symbols, and legend of the present land use map of a village)
- e. A roll of transparent plastic which can cover the A0-size aerial photo
- f. A sheet of plywood larger than the aerial photo
- g. Felt-type pens in black and other colors
- h. Masking tape
- i. Flipcharts
- j. Snack, water and lunch for participants

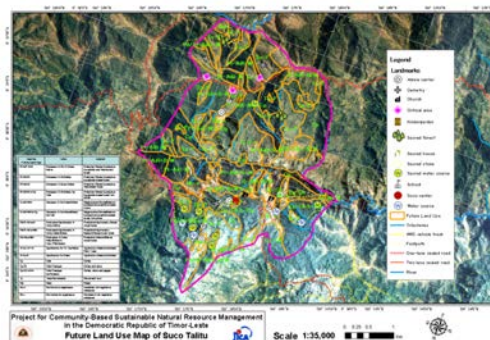
(7) Home Works after the Meeting

A future land use map shall be refined by transferring the information (i.e., boundaries, symbols, and landmarks) transcribed on the transparent plastic in a village to a new transparent plastic in the same manner as the present land use plan is refined. Symbols, land marks, and legend of the map should be preferably prepared by computer and pasted onto the new transparent plastic with refinement of the boundaries of future land uses. A future land use map shown in **Appendix 4.4** shall be developed in the end. On the other hand, the data and information transcribed in the matrix prepared in session 8 shall be encoded into a MS word format and finalize a table as shown in **Appendix-4.4**.

(8) Expected Outputs

The following outputs shall be finally prepared in the end of this step.

- a. A future land use map at the same scale with the present land use map in a transparent plastic
- b. A table with proposed management practices on the respective future land uses



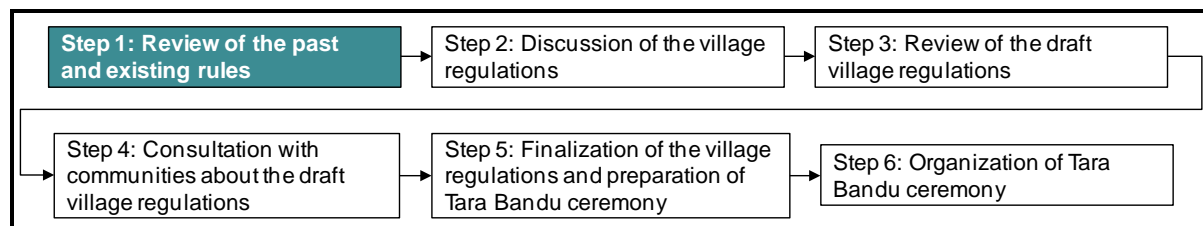
Appendix-4.4 shows samples of both outputs, which were prepared in the course of the JICA-MAF CB-NRM Project.

4.1.2 Stage 2: Formulation of Village Regulations

As explained in section 3.5, it is possible to start the selection of agriculture and forestry extension services described in Section 4.2 in parallel with the formulation of village regulations, whose procedures are described below.

【Phase 1.1-Stage2-Step 1】 Review of the Past and Existing Village Rules

As the first step for the formulation of village regulations, the working group shall review customary rules and norms on natural resource management in a village and evaluate them if they can be still used as rules in a village.



(1) Objectives

The main objective of the meeting is to help the members of the working group review and evaluate the past and existing rules and regulations on management of forest and other natural resources in a village. In the discussions, the members will check if their customary rules and regulations could be effective in the current context of a village. Specifically, the meeting aims to help the members:

- review customary rules that they had/have followed in the respective timeframes: namely i) during the Portuguese colonial era (~1975), ii) during the period under the Indonesian Government's control (1975~2001), and iii) after the independence (2002~);
- assess advantages and disadvantages of such past and current rules; and
- review the operation systems (e.g., coverage, fines and penalties imposed, responsible body for enforcement, and method/system to enforce the rules) to implement the rules in the respective timeframes.

(2) Expected Participants

All the members of the working groups shall participate in the meeting.

(3) Timeframe and Venue

A one (1)-day meeting shall be held at the office of suco.

(4) Proposed Agenda of the Meeting

The following is the standard agenda proposed for the meeting.

Standard Agenda for the Meeting for Review of Customary Rules

Timeframe	Sessions	Resource person
10:00-10:30	Session 1: Outline of the meeting (objectives, activities and timeframe)	NDFWC/District Forest Officers Facilitators/NGO
10:30-12:30	Session 2: Outline of the past and existing rules on natural resource management in a village (prohibited activities)	Facilitators/NGO
12:30-13:30	Lunch Break	-
13:30-15:00	Session 2: Outline of the past and existing rules on natural	Facilitators/NGO

Timeframe	Sessions	Resource person
	resource management in a village (responsible body, implementation system, fine and penalties)	
15:00-16:00	Session 3: Advantages and disadvantages of the rules	ditto
16:00-16:30	Clarification and question Explanation of the next step	NDFWC/District Forest Officers Facilitators/NGO

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

The meeting and discussions for review of past and existing rules/norms shall be conducted according to the following procedures.



- Session 1: Explain the purpose, timeframe, and expected outputs of the workshop to the participants.
- Session 2 (1): Ask the participants to share their impression of the past and existing rules and regulations on forest and natural resource management in a village in terms of its effectiveness and strength.
- Session 2 (2): Ask them to assess the past and existing rules by discussing the following aspects:
- Banned acts/activities with regard to forest and natural resource management;
 - Responsible persons or groups to enforce the rules;
 - Fines and penalties imposed on violations;
 - Enforcement/implementation system; and
 - Other rules (prohibited acts/activities with regard to other matters).

Tips of discussion

Prior to the meeting, you should prepare an entry format as shown below in flipcharts. In the discussions, you should first advise the working group to enumerate the village rules (banned acts/activities) on natural resource management in the respective timeframes, and then ask them to explain the rules in terms of the following points:

- i) responsible persons for implementation of rules;*
- ii) fines/penalties imposed on violations; and*
- iii) implementation system (how to implement and enforce the rules).*

Aspects discussed	Portuguese times	Indonesian times	After the independence
1. General impression			
2. Banned activities			
3. Activities allowed			
4. Implementation system and persons responsible			
5. Fines and penalties			
6. Advantages and disadvantages			
7. Necessary improvement			

Source: JICA Project Team (2015)

Session 3 (1): Ask them to assess advantages and disadvantages of the rules in the respective timeframes and evaluate if the rules or parts of them can be used as their regulations.

Session 3 (2): Ask them to discuss necessary changes/revisions to be made in the rules to use them as new regulations.

Session 3 (3): Fill in the results of the discussions above on the format.

All the discussions made by the participants shall be written down in flipcharts so that they can review and understand what they discussed. Notes of the discussion shall be taken simultaneously.

(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- a. NDFWM/NDFC Officer/s, District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO
- c. Pre-made flipcharts with the entry format
- d. Felt-type pens
- e. Masking tape
- f. Flipcharts
- g. Snack, water and lunch for participants

(7) Home Works after the Meeting

The results of the discussions shall also be encoded and compiled into a format made in MS excel. At the same time, a list of banned activities that the working groups agreed on as rules on natural resource management in a village shall be prepared.

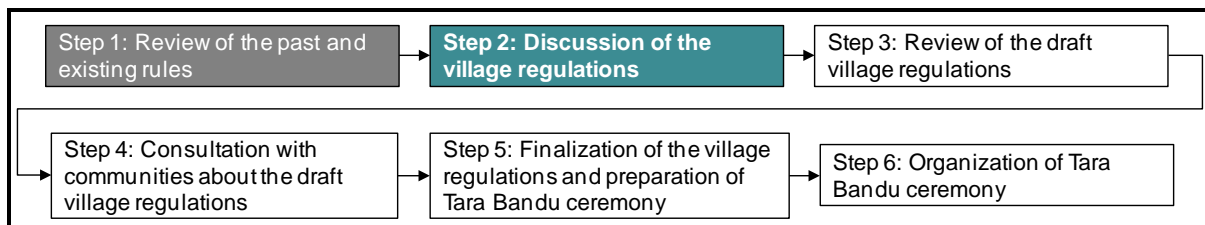
(8) Expected Outputs

The following data and information which can be used as parts of the village regulations can be identified and outlined.

- Customary rules/norms on natural resource management (banned activities) in a village
- Systems and structure for implementation/enforcement of rules and regulations
- Improvement to be made in the rules

【Phase 1.1-Stage 2-Step 2】 Discussions of the Draft Village Regulations

Based on the discussion in Stage 2-Step 1, the members of the working group shall further discuss their village regulations to come up with the draft version of village regulations in writing.



(1) Objectives

The main objective of the meeting is to help the members of the working group develop the new village regulations covering not only natural resource management but also social norms in a village. Specifically, the meeting aims to help the members:

- determine activities/acts to be banned for sustainable forest and natural resource management;
- identify rules and prohibitions to maintain the social order in a village;
- develop a simple system to implement and enforce the rules without any external support in the future;
- decide an organizational set-up to implement and enforce the regulations in a village; and
- determine the realistic fines and penalties imposed on violators.

(2) Expected Participants

All the members of the working groups shall participate in the meeting.

(3) Timeframe and Venue

A two (2)-day meeting shall be held at the village office.

(4) Proposed Agenda of the Meeting

The following is the standard agenda for the meeting.

Standard Agenda for the Meeting for Discussion on Village Regulations

Day 1

Timeframe	Sessions	Resource person
10:00-10:30	Session 1: Outline of the meeting (objectives, activities and timeframe)	NDFWC/District Forest Officers Facilitators/NGO
10:30-11:15	Session 2: Presentation of the results of steps 5 and 6 (future land use map, proposed management practices of land use types, and the past and exiting rules effective for natural resource management)	Facilitators /NGO
11:15-11:30	Coffee Break	-
11:30-12:30	Session 3: Discussion on the objectives of the village regulations	Facilitators /NGO
12:30-13:30	Lunch Break	-
13:30-14:30	Session 4: Discussions on typical contents of the village regulations	Facilitators /NGO
14:30-16:30	Session 5: Discussions on the village regulations - Rules on natural resource use (Chapter 5)	ditto

Timeframe	Sessions	Resource person
	<ul style="list-style-type: none"> - Proper forest and land management practices (Chapter 4) - Social rules/norms (Chapter 3) - Rules on management of livestock animals (Chapter 6) 	

Day 2

Timeframe	Sessions	Resource person
10:00-10:30	Recapturing the day 1 session	Facilitators /NGO
10:30-12:30	Session 5: Discussions on the village regulations - Organization responsible for implementation (Chapter 7) - Implementation system of the regulations (Chapter 8) (including coffee break)	ditto
12:30-13:30	Lunch Break	-
13:30-16:00	Session 5: Discussions on the village regulations - Monitoring and information dissemination (Chapter 9) - Income and expenditures (Chapter 10) - Fines and penalties (Chapter 11)	Facilitators /NGO
16:00-16:30	Clarification and question Explanation of the next step	NDFWC/District Forest Officers Facilitators /NGO

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

The meeting shall be conducted according to the following procedures.

Session 1: Explain the purpose, timeframe, and expected outputs of the workshop to the participants.

Session 2 (1): Present the results of Stage 1-Step 5 (the future land use options with the proposed land management practices of the respective land use options).

Session 2 (2): Present the results of Stage 2-Step 2 (the outline of the past and existing rules on natural resource management and implementation system).

Tips of discussion

You should transcribe the results of both workshops into flipcharts prior to the meeting so that the participants can easily review what they discussed and determined before.

Session 3: Ask the participants to discuss and determine the objectives of the village regulations.

Tips of discussion

Some of the possible objectives are as follows:

Principle objective: to protect, improve, and enhance welfare of the communities and natural resources in a village.

*Specific objectives: to protect natural environment of a village
to enhance and maintain the solidarity of communities
to improve and maintain the social order in a village
to maintain the traditional practices and cultures in a village
to encourage communities to give due respect to each other
to enable communities to enjoy benefits from natural resources
to contribute to the environment in the downstream*

Session 4: Introduce the typical contents of the village regulations as follows.

Chapter 1: General and definition

- Chapter 2: Purpose of the village regulations
- Chapter 3: General rules
- Chapter 4: Future land use and guidelines on future land use
- Chapter 5: Rules on the use of natural resources
- Chapter 6: Rules on the Management of Livestock Animals
- Chapter 7: Village organization responsible for implementation/enforcement
- Chapter 8: Implementation system of the village regulations
- Chapter 9: Monitoring of implementation and information dissemination to communities
- Chapter 10: Financial management (Income and Expenditure)
- Chapter 11: Fines and penalties
- Chapter 12: Effectiveness and final provisions

Section 5: Ask the participants to discuss the following topics to draft the village regulations (If necessary, introduce the village regulations developed by the JICA-MAF CB-NRM Project villages as references. A sample of the village regulations is shown in **Appendix-4.5**):

- i) Rules on use and management of forest and natural resources in a village referring the list of banned acts/activities prepared in Stage 1 Step 1 (Chapter 5);
- ii) Social rules/norms (or a kind of civil law) for improvement and maintenance of social orders in a village (Chapter 3);
- iii) Proposed land and forest management practices to use farmlands and forests in a village in a sustainable and proper manner referring the future land use options with the present land management practices (Chapter 4);
- iv) Rules on management of livestock animals in a village to reduce crop damage caused by grazing animals (Chapter 6);
- v) Persons and groups responsible for implementation of the village regulations and roles and responsibilities of persons/groups responsible (Chapter 7);
- vi) A system or protocol that local communities need to follow when they solve/settle a case using the village regulations (Chapter 8),
- vii) Liability/responsibility for payment of meeting expenses when a case is officially settled (Chapter 8);
- viii) Regular meetings to be held at the village level to monitor the situation of a village and solve any issues happening in a village using the village regulations (Chapter 9),
- ix) Regular meetings to be held at the sub-village level to enhance awareness of the village regulations among communities through dissemination of the results of the regular meetings at the village level (Chapter 9);

- x) Types of income that a village can obtain through implementation of the village regulations and guidelines/rules on management of such incomes (Chapter 10); and
- xii) Types of violation to be penalized and fines/penalties to be imposed on a violator as well as a method of collection of fines (Chapter 11).

Tips of discussion

- a. *You should advise the participants to fully refer the results of the workshops held in Stage 1-Step 5 (Future Land Use Planning) and Stage 2-Step 1 (Review of Past and Existing Village Rules) in the discussions on Chapters 4 and 5. In fact, the future land use options with a future land use map and land management practices will constitute Chapter 4 of the regulations.*
- b. *You can use the village regulations developed by the JICA-MAF CB-NRM Project villages for their references when discussing each topic or chapter listed above. A sample of the village regulations is shown in **Appendix-4.5**.*

All the discussions made by the participants shall be written down in flipcharts so that they can review and understand what they discussed. At the same time, notes of the discussions shall be taken.

(6) Inputs (Human Resources and Materials) needed

The following inputs are needed for this step.

- a. Central NDFWM/NDFC Officer/s, District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO
- c. Future land use map with the aerial photo
- d. Premade explanatory flipcharts with descriptions of the results of Stage 1-Step 5 and Stage 2-Step 1
- e. Felt-type pens
- f. Masking tape
- g. Flipcharts
- h. Snack, water and lunch for participants

(7) Home Works after the Meeting

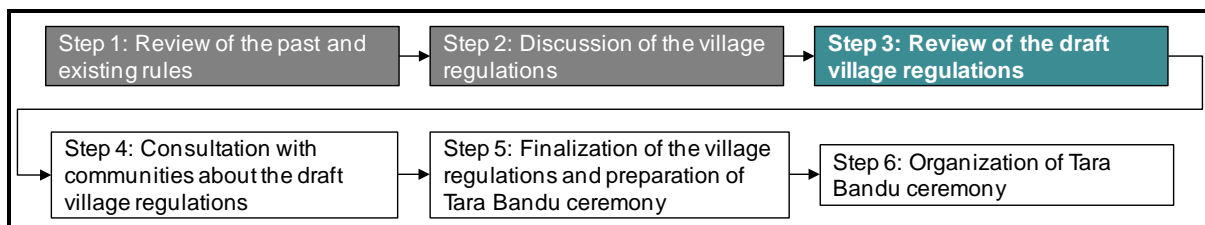
The draft version of village regulations shall be prepared by referring the discussions in the sessions. In case that the sample village regulations in **Appendix-4.5** are used in the meeting, the village regulations could be prepared by revising/amending the same based on the ideas given by the participants in the meeting.

(8) Expected Outputs

A set of village regulations similar to the one shown in **Appendix-4.5** is expected to be prepared.

【Phase 1.1-Stage 2-Step 3】 Review of the Draft Village Regulations and Future Land Use Plan

The village regulations drafted in the previous step shall be presented to the members of the working group for review. In the meeting, the members of the working group will check if the draft version contains all the ideas and suggestions given by them in the previous meetings.



(1) Objectives

The main objective of the meeting is to help the members of the working group review the draft village regulations prepared on the basis of the discussions in the previous meeting and make necessary revision if necessary. At the same time, this session aims to deepen their understanding of the draft village regulations through review and discussion.

(2) Expected Participants

All the members of the working groups shall participate in the meeting.

(3) Timeframe and Venue

A one (1)-day meeting shall be held at the office of suco.

(4) Proposed Agenda of the Meeting

The following is the standard agenda for the meeting.

Standard Agenda for the Meeting for Review of Draft Village Regulations

Timeframe	Sessions	Resource person
10:00-10:30	Session 1: Outline of the meeting (objectives, activities and timeframe)	NDFWC/District Forest Officers Facilitators/NGO
10:30-12:30	Session 2: Review and revision of the draft village regulations	Facilitators/NGO
12:30-13:30	Lunch Break	-
13:30-15:00	Session 2: Review and revision of the draft village regulations	Facilitators/NGO
15:00-16:00	Session 3: Planning of consultation meetings at the sub-village level	ditto

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

Prior to the meeting, the draft village regulations shall be copied as many as the number of the members of the groups. The meeting shall be conducted according to the following procedures.

Session 1: Explain the purpose, timeframe, and expected outputs of the workshop to the participants.

Session 2 (1): Read through the draft village regulations from the beginning



together with the members to the participants.

- Session 2 (2): Ask the members to check one article by one article in the draft regulations.
- Session 2 (3): Revise the draft regulations in case any descriptions are considered not applicable to a village.
- Session 3 (1): Explain the necessity of holding consultation meetings with local communities at the sub-village level for finalization of the regulations.
- Session 3 (2): Fix the dates of the meetings at the respective sub-village.
- Session 3 (3): Discuss the roles and responsibilities of the members of the working group in the consultation meetings. The roles to be shared by the members are: i) explanation of the process, ii) presentation of the draft village regulations and future land use plan (map) to local communities, and iii) answers to questions.

All the revisions agreed on by the members in the meeting shall be taken down in the flipcharts and a notebook.

(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- a. Central NDFWM/NDFC Officer/s, District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO
- c. Future land use map with the aerial photo
- d. Copies of the draft village regulations
- e. Felt-type pens
- f. Masking tape
- g. Flipcharts
- h. Snack, water and lunch for participants

(7) Home Works after the Meeting

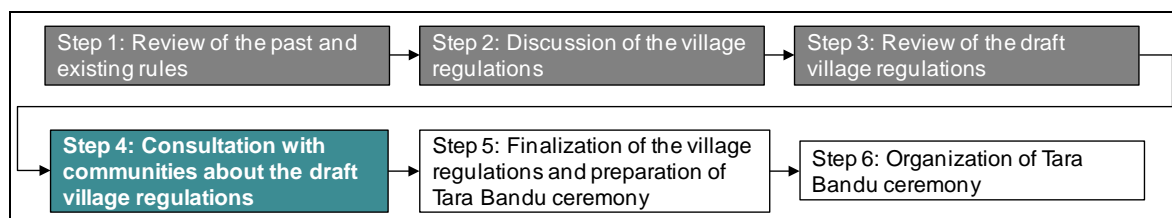
The draft village regulations shall be revised by referring comments and suggestions given by the members of the working group in the meeting. The revised village regulations shall be transcribed into flipcharts for the next step.

(8) Expected Outputs

The final version of the draft village regulations with future land use plan will be prepared in writing.

【Phase 1.1-Stage 2-Step 4】 Consultation with Local Communities about the Draft Village Regulations and Future Land Use Plan

The members of the working group shall hold consultation/socialization meetings at the sub-village level to obtain consent as well as feedback from local communities on the draft regulations.



(1) Objectives

The main objective of the meeting is to help the members of the working group introduce the draft village regulations to other communities in a village and get feedbacks as well as unanimous consent from them for finalization. Specifically, the meeting aims to:

- explain the objectives and outline of the village regulations to local communities at the sub-village level and clear up their doubts/misunderstand on the regulations;
- identify any points to be reconsidered in the draft version to make the village regulations acceptable for local communities; and
- help village leaders deepen their understandings of the village regulations through presentation to as well as discussions with communities at the sub-village level.

(2) Expected Participants

The majority of communities/households in a village are expected to attend the meetings at the respective sub-villages.

(3) Timeframe and Venue

A one (1)-day meeting will be held at each sub-village.

(4) Proposed Agenda of the Meeting

The following is the standard agenda for the meeting at the sub-village level.

Standard Agenda for Consultation Seminars at the Sub-village Level

Timeframe	Sessions	Resource person
10:00-10:30	Session 1: Outline of the meeting (objectives, activities and timeframe)	NDFWC/District Forest Officers Facilitators/NGO
10:30-12:30	Session 2: Presentation of the village regulations with the future land use plan	Facilitators/NGO
12:30-13:30	Lunch Break	-
13:30-15:30	Session 3: Discussion on the village regulations and future land use plan	Facilitators/NGO
15:30-16:00	Recapturing of the discussions Explanation of the next step	ditto

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

Prior to the meeting, the draft village regulations should be transcribed on flipcharts so that

communities who attend the meetings can read the regulations by themselves while the members of the working group explain the same in the meeting. The meeting at the sub-village level will be conducted according to the following procedures.

- Session 1: Explain the purpose, timeframe, and expected outputs of the workshop to the participants.
- Session 2 (1): Ask one of the members of the working group shall explain the process of PLUP (what they have done from Stage 1-Step 3 to Stage 2-Step 3).
- Session 2 (2): Ask another member of the working group to read through the village regulations from Chapter 1 to the last chapter of the draft village regulations. It is also possible that the members can read the regulations chapter by chapter by rotation.
- Session 3 (1): Ask the participants (communities who attend the meeting) to give their opinions and suggestions on the draft village regulations and future land use plan.
- Session 3 (2): Help the members of the working group reply to the questions/inquiries/suggestions given by the participants.



All the discussions made between the participants and the members shall be taken down in flipcharts and a notebook in the meeting.

(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- NDFWM/NDFC Officer/s, District Forest Officer/s, and Forest Guard/s
- Facilitators/NGO
- Flipcharts on which the draft village regulations are transcribed on
- Future land use map with the aerial photo
- Felt-type pens
- Masking tape
- Flipcharts
- Snack, water and lunch for participants

(7) Home Works after the Meeting

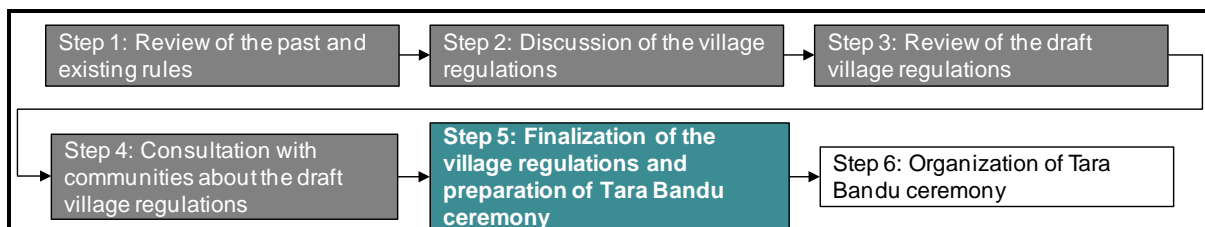
The draft village regulations shall be revised by referring comments and suggestions given by the participants in the consultation meetings, if necessary.

(8) Expected Outputs

The village regulations and future land use plan, which can be accepted by local communities as their village rules, will be finalized.

【Phase 1.1-Stage 2-Step 5】 Finalization of the Village Regulations and Preparation of *Tara Bandu* Ceremony

The village regulations shall be finalized based on the results of the consultation meetings at the sub-village level. At the same time, the members of the working group shall prepare for a traditional ceremony, which is so-called “Tara Bandu ceremony,” for announcement of the inauguration of the village regulations in and around a village.



(1) Objectives

The main objective of this step is to help the working group prepare for a traditional/customary ceremony, “Tara Bandu ceremony,” for announcement of the inauguration of the village regulations.

(2) Activities to be done

Prior to the preparation of the ceremony, the village regulations shall be finalized by referring the comments and feedbacks given in the consultation meetings. The village regulations shall be bound up in a simple book form and presented to the members of the working group for final confirmation.

At the same time, a meeting with the working group shall be held to decide the date of the ceremony, guests to be invited, and tasks of the working group and NDFWM/NDFC/MAF District Office/NGO in the preparation. After the meeting, the following activities shall be carried out in collaboration with the working group.

- a. Make a list of guests to be invited to the ceremony
- b. Prepare and deliver the invitation letter to guests
- c. Visit the authorities concerned (e.g., Sub-district Administrator, District Administrator, District Director of MAF District Office, and National Director of NDF) and ask their endorsement and authorization of the village regulations
- d. Procure materials needed for the ceremony
- e. Help the members of the working group prepare for the ceremony

(3) Roles of the Major Players

NDFWM/NDFC and District Forestry Officers together with facilitators/NGO shall be responsible for finalization of the village regulations in writing. They shall also assist the working group in: i) preparation and delivery of the invitation letter; ii) explanation of the village regulations to the authorities concerned; iii) binding of the village regulations; and iv) procurement/preparation of materials necessary for the ceremony. The working group shall be responsible for preparation of the venue and local materials used for the ceremony, calling of local communities, and invitation of the neighboring villages to the ceremony.

(4) Timeframe

About one to two week/s may be required for the preparation.

(5) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

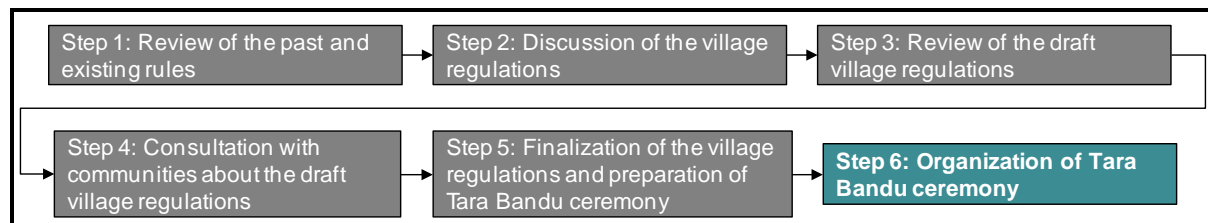
- a. NDFWM/NDFC Officer/s, District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO
- c. Budget for binding, transportation, and procurement of materials
- d. Arrangement for the meetings with the authorities concerned

(6) Expected Outputs

The village regulations are ready for signing. Materials necessary for the ceremony will also be procured.

【Phase 1.1-Stage 2-Step 6】 Organization of *Tara Bandu* Ceremony

A customary/traditional ceremony named “*Tara Bandu ceremony*” will be held at a village to announce the official inauguration of the village regulations to communities in and around a village.



(1) Objectives

The main objective of the ceremony is to officially notify local communities in and around a village of inauguration of the village regulations in a customary/traditional manner.

(2) Expected Participants

The following guests are expected to participate in the ceremony.

- a. High officials of MAF (e.g., H.E. Minister and General Director of MAF)
- b. Representatives of NDFWM/NDFC (National Directors of NDFWM & NDFC, Heads of Departments of NDFWM & NDFC)
- c. Representatives of District MAF Office concerned
- d. Representatives of Municipal Government Office concerned
- e. Sub-district Administrator of Sub-district Administrative Office concerned
- f. Village leaders of the neighboring sucos
- g. All communities in the village

(3) Timeframe and Venue

A one (1) day ceremony is held at the center of a village.

(4) Proposed Agenda of the Ceremony

The way of the ceremony may vary with the culture of the village. Hence, the agenda showing hereafter is an example, which was used for the ceremony held in one of the JICA-MAF CB-NRM Project villages, Suco Hautoho in Remexio Sub-district.



Standard Agenda for the Customary Ceremony (*Tara Bandu Ceremony*)

Timeframe	Sessions	Resource person
09:00-09:15	Registration	Facilitators/NGO Village leaders
09:15-09:30	Snack/Coffee Break	Facilitators/NGO
09:30-10:00	Mass by Priest of Sub-district	-
10:00-11:00	Introduction of the village regulations and future land use plan	Village leaders
11:00-13:00	Speeches from guests	Relevant guests
13:00-14:00	Lunch	ditto

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

The ceremony should be held in a customary /traditional manner of a village. Hence, there is no standard guideline to be specified in this manual. In fact, some village may require the sacrificial protocol, while some may not require it but just have mass as shown above. However, the introduction of the village regulations and future land use plan should be incorporated into the ceremony as a key agenda. It is important not only to make communities aware of the village regulations but also to enhance a sense of ownership of the village regulations among village leaders.



(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- a. Materials for the ceremony (e.g., audio equipment (if necessary), generator, sun-shade sheet, chairs, tables, plates and utensils, etc.)
- b. Sacrificial animals
- c. Foods (rice, vegetables, and snacks) and drinks (coffee, tea, and tua mutin)



(7) Expected Outputs

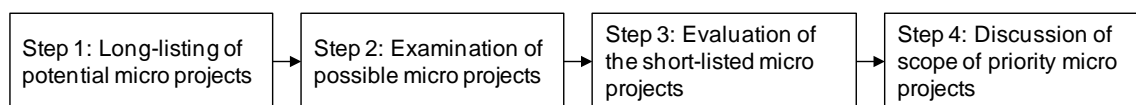
The village regulations with the future land use plan will be officially inaugurated and notified to local communities residing in and around the village in a customary/traditional manner.

4.2 Phase 1.2: Selection of Agriculture and Forestry Extension Services (or Micro Programs) for Implementation of the Future Land Use Plan

It would not be easy for local communities to materialize the future land use plan without any support for changing the present land use patterns and land management practices. Effective agriculture and forestry extension services are essential for creating an enabling environment where local communities could improve the current land uses and replace their conventional farming practices with more sustainable and productive ones.

The extension services shall be selected on the basis of the needs of local communities in a participatory manner, or local communities might not accept the techniques introduced by the extension services. It is, therefore, advisable to involve a wide range of local communities in the process of identification/selection of the extension services.

The process and procedures introduced in this section had been demonstrated by the JICA-MAF CB-NRM Project in 2011 and 2012 and proven effective in identifying and selecting priority extension services (called “micro programs” in the project) aimed at implementation of the future land use plan and improvement of local livelihoods in the project villages. The process is composed of four (4) steps: one preparatory work and three consecutive workshops/meetings with local communities at the village level as shown below.



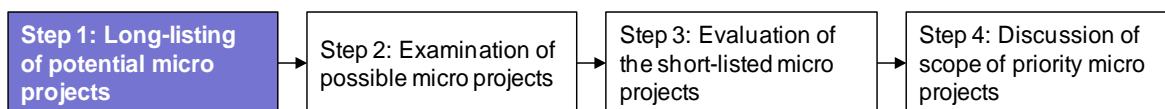
Specifically, the field workshops/meetings aim to enable local communities to:

- a. assess the current situation of a village;
- b. be aware of the techniques/skills that they need to learn for implementation of the future land use plan;
- c. evaluate the possible extension services or micro programs in terms of effectiveness, impact, and sustainability; and
- d. prioritize and select one or two important extension service/s or micro program/s applicable to a village.

4.2.1 Preparatory Work

[Phase 1.2-Step 1] Long-listing of Potential Extension Services

Potential extension services/micro programs, which are expected to be effective in sustainable natural resource management and applicable to a village, shall be selected and long-listed prior to the workshops with communities.



(1) Objectives

The main objective of the step is to make a long list of the potential extension services/micro programs effective in sustainable natural resource management and livelihood improvement in a village in consultation with field officers, such as extension officers, forest guards, NGO workers who are familiar with the area.

(2) Activities to be done

The following 10 micro projects identified by the JICA-MAF CB-NRM Project for its project villages can be used as a master list, since their effectiveness has been validated in the course of the JICA-MAF CB-NRM Project and its preceding Study¹. The outline of the respective extension services/micro programs is shown in **Appendix-4.6**.

- a. Seedling Production and Tree Planting Promotion
- b. Community-based Seed Extension
- c. Home Garden (Vegetable Production)
- d. Grazing Control with Protein Banks
- e. Sustainable Upland Farming Promotion
- f. Coffee Plantation Rehabilitation
- g. Income Generating/Cost Saving
- h. Initial Gully Control Sub-program
- i. Sustainable Use of Backyard/Permanent Farms

The applicability and effectiveness of the extension services/micro programs listed above shall be evaluated in consideration of natural and socio-economic conditions of a village in consultation with field officers working in a village, such as MAF Extension Officer, Forest Guard, and any NGO working in the field. The future land use plan as well as other data and information obtained through PLUP shall also be used for assessment. It is also possible to add any new extension services/micro programs which can fit in the current situations of a village.

After selection of the potential extension services/micro programs, a set of profiles of the long-listed extension services/micro programs shall be prepared by transcribing the outline described in **Appendix-4.6** on flipcharts.

(3) Roles of the Major Players

¹ The Study on Community-Based Integrated Watershed Management in the Laclo and Comoro River Basin implemented by JICA from November 2005 to March 2010

NDFWM/NDFC officer/s and District Forest officer/s in collaboration with facilitators/NGO shall be responsible for preparation of a long-list of the potential extension services/micro programs. MAF field officers (e.g., Extension officer, Forest Guard, and other District officers) shall assist them in long-listing the potential extension services/micro programs by sharing their ideas and experiences.

(4) Timeframe

About one week may be required for preparation of a set of profiles of the long-listed extension services/micro programs.

(5) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- a. NDFWM/NDFC Officer/s, District Forest Officer/s, Forest Guard/s, and Extension Officer/s
- b. Facilitators/NGO
- c. Felt-type pens
- d. Flipcharts

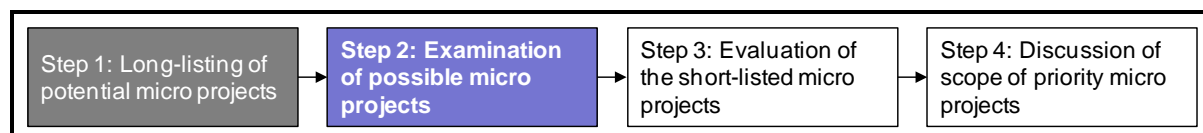
(6) Expected Outputs

A long-list of the potential micro projects with their profiles are prepared and become ready for a meeting with local communities.

4.2.2 Workshops/Meetings with Local Communities

【Phase 1.2-Step 2】 Examination of the Potential Extension Services/Micro Programs for Short-listing

Local communities shall make an initial examination of the potential extension services/micro programs for short-listing.



(1) Objectives

The main objective of the step is to help local communities understand the outline of the potential extension services/micro programs and short-list them in a participatory manner.

(2) Expected Participants

In addition to the members of the working group, another 20~30 communities composed of 10~15 males and 10~15 females will be selected randomly for the meeting. Preferably, communities shall be selected from a wide range of social strata. The total number of the participants in the meeting is estimated at 40 to 50.

(3) Timeframe and Venue

A one (1) day meeting is held at the village office.

(4) Proposed Agenda of the Meeting

The following is the standard agenda for the meeting.

Standard Agenda for the Meeting for Examination of Potential Extension Services/Micro Programs

Timeframe	Sessions	Resource person
10:00-10:15	Session 1: Outline of the meeting (objectives, activities and timeframe)	NDFWC/District Forest Officers Facilitators/NGO
10:15-11:00	Session 2: Briefing of the purpose of the extension services/micro programs and review of the results of PLUP	Facilitator/NGO
11:00-13:00	Session 3: Explanation of the schedule and outline of the extension services/micro programs (including coffee break)	ditto
13:00-14:00	Lunch Break	-
14:00-16:00	Session 4: Group discussions to examine the extension services/micro programs	Facilitators/NGO
16:00-16:30	Session 5: Exchange of the results of the discussions	ditto
16:30-16:45	Wrap-up and introduction of the next meeting	ditto

Source: JICA Project Team (2013)

(5) Guidelines for the Meeting

The meeting shall be conducted according to the following procedures.

Session 1: Explain the purpose, timeframe, and expected outputs of the workshop to the participants.

Session 2 (1): Give a briefing of the main purpose of the extension



services/micro programs in the context of CB-NRM, namely:

- to materialize the future land use plan;
- to achieve sustainable natural resource management in a village; and
- to improve local livelihoods in a village.

Session 2 (2): Also introduce basic rules of the extension services/micro programs, which would mainly provide technical services but not include any cash payment.

Session 2 (3): Summarize the results of PLUP, especially the future land use plan, showing the future land use map to help the participants recapture the future land use plan and identify necessary activities/interventions for them to materialize the future land use plan.

Session 3 (1): Explain to the participants the outline (major activities and expected results) of the potential extension services/micro programs using the pre-made flipcharts showing the profiles.

Session 3 (2): Explain to them the following obligations that local communities who participate in the extension services/micro programs shall fulfill.

- a. Participation in hands-on training courses and other group activities without pay
- b. Attendance at meetings held by the beneficiaries'/farmers' groups in the course of the extension services/micro programs
- c. Cooperation with MAF officers and facilitators/NGO
- d. Provision of local materials necessary for activities of the extension services/micro programs.

Session 3 (3): Ask the participants if they have any questions or need clarification about the potential extension services/micro programs.

Session 4: Split the participants into two (2) groups, male group and female group, and ask each group to select three potential extension services/micro programs among the long-listed ones.



Tips of discussion

You should ask the participants to select their preferable extension services/micro programs by assessing them in terms of: i) importance, ii) possibility of implementation, and iii) effectiveness for the land use plan.

Session 5: Ask each group to introduce and share the results of the discussions (i.e., three selected extension services/micro programs and reasons for selection) to one another.

All the discussions, especially results of the selection made by the respective groups, shall be written down in flipcharts and a notebook in the meeting.

(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

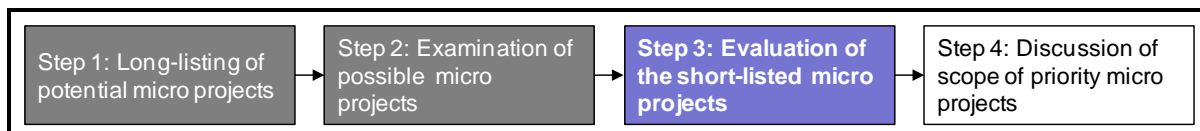
- a. NDFWM/NDFC Officer/s, District Forest Officer/s, Forest Guard/s, and Extension Officer/s
- b. Facilitators/NGO
- c. Future land use map with aerial photo
- d. Pre-made explanatory flipcharts with descriptions of the profiles of the potential extension services/micro programs
- e. Felt-type pens
- f. Masking tape
- g. Flipcharts
- h. Snack, water and lunch for participants

(7) Expected Outputs

A short-list of the potential extension services/micro programs can be prepared for further discussions.

【Phase 1.2-Step 3】 Evaluation of the Short-listed Extension Services/Micro Programs

Local communities shall further evaluate the short-listed extension services/micro programs for prioritization.



(1) Objectives

The main objective of the step is to help local communities prioritize the short-listed extension services/micro programs and select the priority ones in a systematic and participatory manner. Hence, local communities shall be encouraged to assess and examine the short-listed extension services/micro programs from the following viewpoints.

- a. Effectiveness in realization of the future land use plan
- b. Relevance to sustainable natural resource management
- c. Possibility of implementation of the extension services/micro programs
- d. Impact of the extension services/micro programs (Size of potential beneficiaries)
- e. Contribution to local livelihoods in a village

(2) Expected Participants

The same persons, who participate in the first meeting, will participate in the meeting.

(3) Timeframe and Venue

A one (1) day meeting is held at the center of a village.

(4) Proposed Agenda of the Meeting

The following is the standard agenda proposed for the meeting.

Standard Agenda for the Meeting for Evaluation/Prioritization of the Extension Services/Micro Programs

Timeframe	Sessions	Resource person
10:00-10:15	Session 1: Outline of the meeting (objectives, activities and timeframe)	NDFWC/District Forest Officers
10:15-11:00	Session 2: Recapturing the results of the 1 st meeting	Facilitators/NGO
11:00-13:00	Session 3: Evaluation of the selected extension services/micro programs	ditto
13:00-14:00	Lunch Break	-
14:00-15:30	Session 3: Evaluation of the selected extension services/micro programs	Facilitators/NGO
15:30-16:30	Session 4: Selection of the priority extension services/micro programs	ditto
16:30-16:45	Wrap-up and introduction of the next meeting	ditto

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

The meeting shall be conducted according to the following procedures.

- Session 1: Explain the purpose, timeframe, and expected outputs of the workshop to the participants.
- Session 2: Explain the results of the discussions held in Step 2 to the participants.

Session 3 (1): Introduce the evaluation criteria (i.e., effectiveness, relevance, applicability, impact, and contribution to livelihoods) to the participants;

Session 3 (1): Help the participants evaluate the short-listed extension services/micro programs according to the evaluation criteria;

Tips of discussion

- a. Prior to the meeting, you should prepare the following format on flipcharts to facilitate discussions in the meeting.
- b. In the beginning of the meeting, you should clearly explain the implication of the five (5) evaluation criteria.
- c. In the evaluation, the short-listed extension services/micro programs should be scored by using a 3-rating system, where 3-point is given to high, 2-point is for medium, and 1-point for low.

Extension services/ Micro programs	Effectiveness for LUP	Relevance to NRM	Possibility of introduction of MP	Number of beneficiaries	Enhancement of livelihood	Total Score
MP 1						
MP 2						
MP 3						
MP 4						

Note: 3: high, 2: fair and 1: low

Source: JICA Project Team (2015)



Session 3 (2): Ask the participants to give their reasons behind their ratings on the respective criteria

Session 4 (1): Calculate the total scores of the respective extension services/micro programs to help them prioritize the options; and

Session 4 (2): Ask the participants to rank the short-listed extension services/micro programs based on the results of the evaluation.

All the discussions shall be taken down in flipcharts and a notebook in the meeting.

(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- a. NDFWM/NDFC Officer/s, District Forest Officer/s, Forest Guard/s, and Extension Officer/s
- b. Facilitators/NGO
- c. Future land use map with aerial photo

- d. Pre-made explanatory flipcharts with descriptions of the profiles of the potential extension services/micro programs
- e. Felt-type pens
- f. Masking tape
- g. Flipcharts
- h. Snack, water and lunch for participants

(7) Home Works after the Meeting

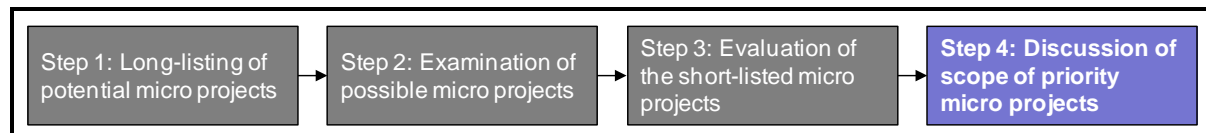
Provisional scopes of the priority extension services/micro programs, which describe: i) key activities, ii) target beneficiaries, iii) responsible entities for implementation, iv) contributions from communities, and v) contribution from other stakeholders, shall be prepared as presented in **Appendix-4.7**. The same shall be further transcribed on flipcharts prior to the meeting of Step 4.

(8) Expected Outputs

Top three priority extension services/micro programs will be identified among the potential ones in a systematic and participatory manner.

【Phase 1.2-Step 4】 Discussions of Scopes of the Priority Extension Services/Micro Programs

It is important to have an agreement on the scopes of the priority extension services/micro program among the stakeholders, namely NDFWM/NDFC, MAF District Office, NGO, and local communities, prior to the commencement of the extension services/micro programs.



(1) Objectives

The main objective of the step is to have an agreement with village leaders on the scopes of the priority extension services/micro programs to be implemented in a village. Specifically, the meeting aims to:

- a. discuss the draft scopes (major activities, target groups, timeframe, and stakeholders) of the extension services/micro programs;
- b. discuss the responsibilities of the stakeholders, namely, communities, NDFWM/NDFC/MAF, and NGO;
- c. Reduce misunderstanding of the extension services/micro programs among village leaders; and
- d. help village leaders and other communities understand their responsibilities in the extension services/micro programs.

(2) Expected Participants

The same persons, who participate in the first meeting, will participate in the meeting.

(3) Timeframe and Venue

A one (1) day meeting is held at the village office.

(4) Proposed Agenda of the Meeting

The following is the standard agenda for the meeting.

Standard Agenda for the Meeting on Scopes of Priority Extension Services/Micro Programs

Timeframe	Sessions	Resource person
10:00-10:15	Session 1: Outline of the meeting (objectives, activities and timeframe)	NDFWC/District Forest Officers Facilitators/NGO
10:15-11:00	Session 2: Recapturing the results of the 2 nd meeting	Facilitators/NGO
11:00-13:00	Session 3: Presentation of the draft scopes of the priority extension services/micro programs with the responsibilities of communities and MAF/NDF	Facilitators/NGO
13:00-14:00	Lunch Break	-
14:00-15:00	Session 3: Presentation of the draft scopes of the priority extension services/micro programs with the responsibilities of communities and MAF/NDF	Facilitators/NGO
15:00-16:00	Session 4: Questions and answering	ditto
16:00-16:30	Conclusion	NDFWC/District Forest Officers Facilitators/NGO

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

The meeting shall be conducted according to the following procedures.

- Session 1: Explain the purpose, timeframe, and expected outputs of the workshop to the participants.
- Session 2: Explain the results of the discussions in Step 3 to them.
- Session 3: Explain the provisional scope/outline of the priority extension services/micro programs using the pre-made explanatory flipcharts of the provisional scopes.

Tips of discussion

You should clearly explain major activities and responsibilities of the stakeholders, especially communities and NDFWM/NDCF/MAF, so that the participants could understand how the extension services/micro programs could benefit them and what they need to do for implementation.

Session 4 (1): Discuss the provisional scopes of the priority extension services/micro programs with the participants.

Session 4 (2): If they agree with the provision scopes, ask them to sign onto the provisional scopes printed in A4 sheets as shown in **Appendix-4.7.**



All the discussions shall be recorded.

(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- a. NDFWM/NDFC Officer/s, District Forest Officer/s, Forest Guard/s, and Extension Officer/s
- b. Facilitators/NGO
- c. Pre-made explanatory flipcharts with descriptions of the provisional scopes of the extension services/micro programs
- d. A4 sheet of the provisional scopes of the extension services/micro programs
- e. Felt-type pens
- f. Masking tape
- g. Flipcharts
- h. Snack, water and lunch for participants

(7) Expected Outputs

The provisional scopes of the priority extension services/micro programs will be agreed on between village leaders and NDFWM/NDFC/MAF.

5. Procedures for Establishment of the CB-NRM Mechanism at the Village Level in the Implementation and Monitoring Phase (Phase 2)

This chapter introduces the procedures for the following activities which aim to strengthen and establish the CB-NRM mechanism introduced in a village.

- a. Institutionalization of the village regulations
- b. Implementation of the priority extension services/micro programs

Both activities shall be carried out after the activities described in Chapter 4, namely “PLUP” and “selection of priority agriculture and forestry extension services/micro programs,” respectively. The “institutionalization of the village regulations” is the essential process that can make the village regulations operational and functional at the village level, while the “implementation of the priority extension services/micro programs” is crucial for enrooting key techniques/skills effective for sustainable natural resource management among communities.

5.1 Phase 2.1: Institutionalization of the Village Regulations

It would be still difficult for village leaders and local communities to govern a village using the village regulations without any support and guidance even though the village regulations are in place through PLUP. In fact, there have been many cases where the customary rules (*Tara Bandu*) were revived with the customary/traditional ceremony (*Tara Bandu* ceremony) but their effectiveness did not last long as if they slipped out of communities’ memory within a few years after the ceremony. It is, therefore, essential to keep reminding them of the village regulations to ensure that the village regulations become operative and effective without repetition of the customary ceremony.

Hence the process aims to help village leaders:

- a. Enhance their understandings of the village regulations;
- b. Develop their capacity to solve any problems/issues in a village, especially those on natural resource management using the village regulations;
- c. Guide/orient local communities toward sustainable natural resource management; and
- d. Familiarize local communities with the village regulations.

It is, therefore, necessary to hold the following meetings periodically at either village and sub-village level for at least two to three years after the village regulations are in place.

- a. Monthly monitoring meeting at the village level
- b. Quarterly information sharing meeting at the sub-village level
- c. Annual evaluation meeting at the village level

【Phase 2.1-Step 1】 Monthly Monitoring Meeting at the Village Level

Village leaders shall discuss problems/issues occurring in a village and monitor how such problems/issues have been/should be settled according to the village regulations.

(1) Objectives

The main objective of the monthly monitoring meeting is to help village leaders: i) deepen their understanding of the village regulations; ii) settle and solve problems and issues occurring in a village using the village regulations; iii) regulate and minimize any illegal acts against the village regulations in a village; and iv) enhance their governance capacity.

(2) Expected Participants

The members of the village committee, which is an implementing body defined by the village regulations, shall participate in the meeting. In principle, the members of village council shall be selected as those of the village committee for the village regulations.

(3) Timeframe and Venue

A one (1)-day meeting will be held at the village office at the end or beginning of every month. The meeting shall be continuously held for at least two (2) years so that village leaders can develop their capacity enough to govern a village using the village regulations.

(4) Proposed Agenda of the Session

The following is the standard agenda for the meeting.

Standard Agenda for the Monthly Monitoring Meeting

Timeframe	Activity	Resource person
10:00-10:15	Session 1: Introduction of the meeting	NDFWM/District Forest Officer Facilitators/NGO
10:15-10:30	Session 2: Opening remarks	Chief of village (<i>Chef de Suco</i>)
10:30-12:00	Session 3: Reports from chefs de aldeia (chiefs of sub-villages) and discussions on problems/issues reported (including coffee break)	Facilitators/NGO Village leaders
12:00-12:30	Session 4: Discussion on any other issues	ditto
12:30-13:00	Session 5: Wrap up by Chief of village (<i>Chef of Suco</i>)	Chief of village (<i>Chef de Suco</i>)
13:00-14:00	Lunch	-

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

At the first meeting, a copy of the village regulations shall be distributed to the members of the village committee. The meeting shall be conducted according to the following procedures.

- Session 1: Introduce the purpose, outline and timeframe of the meeting to the participants (only at the first and second meeting).
- Session 2: Ask chief of village (*Chef de Suco*) to open the meeting.
- Session 3 (1): Ask chiefs of sub-village (*Chef de Aldeia*) to report any illegal



cases or problems that they have had in sub-villages in a month and how they have settled/solved such cases/problems.

Session 3 (2): If there is a pending case/problem, help the participants discuss how to settle/solve such a case/problem using the village regulations and make recommendations to settle the case/problem.

Session 4: Help the participants discuss any issues relating to governance of a village, if necessary.

Session 5: Ask chief of village (Chef de Suco) to wrap up and close the meeting.

All the discussions in the meeting shall be written down in flipcharts to enable the participants to catch up the discussions, and also be recorded in a format given in **Appendix-5.1** to accumulate judicial precedents, which could supplement the village regulations in the future.

(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- a. NDFWM/NDFC Officer/s, District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO,
- c. Flipcharts
- d. Felt-type pen
- e. Masking tape
- f. Snack, water and lunch for participants



(7) Home Works after the Meeting

A memo of the meeting shall be prepared by using a format given in **Appendix-5.1** and shared with the village committee.

(8) Expected Outputs

Village leaders will be capable of governing a village using the village regulations. The incidence of illegal acts which cause forest degradation will also be reduced eventually.

【Phase 2.1-Step 2】 Quarterly Information Sharing Meeting at the Sub-village Level

Village leaders shall share the results of the monthly monitoring meetings with local communities at the sub-village level so that communities could enhance awareness of the village regulations.

(1) Objectives

The main objective of the information sharing meeting is to remind local communities of the village regulations and heighten their awareness that illegal acts are dealt with/penalized in accordance with the village regulations.

(2) Expected Participants

Local communities residing in a sub-village will participate in the meeting. The members of the village committee, especially chief of village (*Chef de Suco*), traditional mediator (*Lia Nain*), and chiefs of sub-village (*Chef de Aldeia*), will also take part in the meeting to explain the results of the monthly meetings to communities.

(3) Timeframe and Venue

A one (1)-day meeting will be held at the sub-village office on a quarterly basis. Likewise, the meeting will be continuously arranged and held for at least two (2) years so that all communities in a village will be familiar with the village regulations.

(4) Proposed Agenda of the Session

The following is the standard agenda proposed for the meeting.

Standard Agenda for the Quarterly Information Sharing Meeting

Timeframe	Activity	Resource person
10:00-10:15	Session 1: Introduction of the meeting	District Forest Officer Facilitator / NGO
10:15-10:30	Session 2: Opening remarks	Chief of village (<i>Chef de Suco</i>)
10:30-12:00	Session 3: Report of the results of the monthly monitoring meetings from the village committee (including coffee break)	Members of the committee Facilitator / NGO
12:00-12:30	Session 4: Questions and answers	ditto
12:30-13:00	Session 5: Wrap up by Chief of village (<i>Chef of Suco</i>)	Chief of village (<i>Chef de Suco</i>)
13:00-14:00	Lunch	-

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

The consultation meeting shall be conducted according to the following procedures:

- Session 1: Introduce the purpose, outline and timeframe of the meeting to the participants;
- Session 2: Ask chief of village (*Chef de Suco*) to open the meeting.
- Session 3: Ask the members of the village committee to report the results of the monthly



monitoring meetings stressing cases/problems occurring in a village and solutions/actions taken by the committee to settle the cases/problems;

Session 4 (1): Ask the participants to make any inquiries or give their opinions on the result of the meeting;

Session 4 (2): Help the members of the village committee reply to questions/inquiries from the participants; and

Session 5: Ask chief of village (Chef de Suco) to wrap up and close the meeting.



All the discussions in the meeting shall be written down in flipcharts to enable the participants to review the discussions. At the same time, notes of the discussions shall be taken separately.

(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- a. District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO,
- c. Flipcharts
- d. Felt-type pen
- e. Masking tape
- f. Snack, water and lunch for participants

(7) Expected Outputs

Local communities at the sub-village level will deepen their understanding of the village regulations and eventually regulate their activities to obey the regulations.

[Phase 2.1-Step 3] Annual Evaluation Meeting at the Village Level

Village leaders together with other local communities shall evaluate the effectiveness of the village regulations and examine if any revision or improvement is needed, so that the village regulations can be kept effective.

(1) Objectives

The main objective of the annual evaluation meeting is to help village leaders make the village regulations and its implementing system more functional through evaluation/examination of their effectiveness. Particularly, the meeting aims to discuss:

- a. Effectiveness of the village regulations;
- b. Trend of illegal acts in a year;
- c. Difficulties in implementation/enforcement of the village regulations;
- d. Performance of the members of the village committee; and
- e. Any revision/improvement to be made on the village regulations.

(2) Expected Participants

The members of the village committee and other local communities from each sub-village will participate in the meeting.

(3) Timeframe and Venue

A one (1)-day meeting will be held at the village office at the end of the year. If the monthly monitoring meeting is held regularly for two (2) years, the meeting would be held twice in total.

(4) Proposed Agenda of the Session

The following is the standard agenda for the meeting.

Standard Agenda for the Annual Evaluation Meeting

Timeframe	Activity	Resource person
10:00-10:15	Session 1: Introduction of the meeting	NDFWM/District Forest Officer Facilitators/ NGO
10:15-10:30	Session 2: Opening remarks	Chief of village (<i>Chef de Suco</i>)
10:30-11:15	Session 3: Major cases/problems found in a year, especially the incidence of wild fires, illegal cutting and crop damage and action taken	Facilitators/NGO
11:15-11:30	Coffee break	-
11:30-12:30	Session 4: Evaluation of the village regulations and the performance of the member of the committee	Facilitators/NGO
12:30-13:30	Lunch	Facilitators/NGO
13:30-15:30	Session 5: Difficulties in the implementation / enforcement of the village regulations and any revisions/improvements to be made	ditto
15:30-16:00	Session 6: Wrap up by Chef of suco	Chief of village (<i>Chef de Suco</i>)

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

The meeting shall be conducted according to the following procedures.

- Session 1: Introduce the purpose, outline and timeframe of the meeting to the participants.
- Session 2: Ask chief of village (*Chef de Suco*) to open the meeting.

- Session 3: Ask and help chiefs of sub-village (*Chef de aldeia*) to report i) major cases/problems found in sub-villages in a year focusing on those of wild fire, illegal cutting, and crop damage caused by grazing animals, and ii) how to solve/settle such cases/problems using the village regulations.
- Session 4 (1): Ask the participants evaluate and examine that i) the village regulations have been effective in reducing the occurrence of illegal acts and ii) the village committee has well functioned as expected.
- Session 4 (2): If the participants are not satisfied with the village regulations and/or the performance of the village committee, ask the participants to share their ideas for an improvement.
- Session 5 (1): Ask the participants if they have faced any difficulties in implementation/enforcement of the village regulations.
- Session 5 (2): Ask the participants if any parts of the village regulations should be revised considering the results of discussions in Session 4 and 5 (1).
- Session 5 (3): Discuss the possible revisions of the regulations if the participants propose any improvements;
- Session 6: Ask chief of village (*Chef de Suco*) to wrap up and close the meeting.

All the discussions in the meeting shall be written down in flipcharts to enable the participants to catch up the discussions. At the same time, a note of the discussions should be taken separately.

(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- a. NDFWM/NDFC Officer/s, District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO,
- c. Flipcharts
- d. Felt-type pen
- e. Masking tape
- f. Snack, water and lunch for participants

(7) Home Works after the Meeting

In case that village leaders and other communities agree to revise the village regulations in the meeting, the village regulations should be reviewed and revised/amended in accordance with the agreements made in the meeting.

(8) Expected Outputs

Village leaders are expected to foster a sense of ownership of the village regulations through review, evaluation, and revision of the same. At the same time, the village regulations might be adjusted with future changes in the socio-economic conditions of a village.



5.2 Phase 2.2: Implementation of the Priority Extension Services/Micro Programs

The priority extension services/micro programs selected by local communities in the previous phase described in Section 4.2 will be put into action in this phase. The extension services/micro programs will be implemented by NDFWM/NDFC and MAF District Office in coordination with other national directorates of MAF (e.g., National Directorate of Extension and Development of Agricultural Communities). External facilitators/NGOs may be hired as field implementers.

In the context of CB-NRM, the main aim of the extension services/micro programs is to strengthen the CB-NRM mechanism introduced in a village by helping local communities improve land productivity, change the types of land use, and introduce new/additional livelihood options based on the natural resources available in the localities. The specific focus of the extension services/micro programs is placed on capacity building of local communities so that they can pursue necessary activities for achievement of the future land use plan even without support. A group extension method, namely farmers field school (FFS), combined with field demonstration of key techniques/skills is proposed as the principle approach for the extension services/micro programs based on the experiences obtained by the JICA-MAF CB-NRM Project and its preceding study¹.

This section overviews the process of and procedures for implementation of the extension services/micro programs, but does not cover techniques/skills introduced by the respective extension services/micro programs. CB-NRM Technical Manual² and CB-NRM Information Kit³, which are other deliverables produced by the JICA-MAF CB-NRM Project, could fill the gaps and introduce key techniques/skills relating to the potential extension services/micro programs. The standard activities to be carried out for the 2-year period of the extension services/micro programs are as follows.

- a. Organization of farmers/beneficiaries groups at the sub-village level
- b. Study tour/cross visit
- c. Preparation of an annual work plan in a participatory manner
- d. Conducts of a series of hands-on training courses/farmers field schools (FFSs)
- e. Annual evaluation and planning of an annual work plan for the following year
- f. Continuation of items d and e

¹ The Study on Community-Based Integrated Watershed Management in the Laclo and Comoro River Basins

² CB-NRM Technical Manuals composed of three volumes: Vol. 1: Seedling Production and Tree Planting, Vol. 2: Sustainable Upland Farming, and Vol. 3: Income Generating/Livelihood Development

³ CB-NRM Information Kit (Technical Reference Book that introduces techniques/skills useful for CB-NRM)

【Phase 2.2-Step 1】 Organization of Farmers/Beneficiaries Groups

Communities who are willing to take part in the extension services/micro programs shall be selected and organized into farmers/beneficiaries groups at the sub-village level.

(1) Objectives

The main objective of this step is to organize communities into farmers/beneficiaries groups at the sub-village level for the training courses/FFSs programmed in the extension services/micro programs. To make the groups sustainable and self-reliant, the groups shall be formed through the following process.

- a. Selection of appropriate members
- b. Selection of group leaders and core members
- c. Determination of roles and responsibilities of leaders and members
- d. Determination of visions and missions of the group

(2) Expected Participants

Village leaders and other communities who are interested in the priority extension services/micro programs will participate in the meeting.

(3) Timeframe and Venue

A three (3)-day meeting should be held at the village office.

(4) Proposed Agenda of the Session

The following is the standard agenda proposed for the meeting.

Standard Agenda for the Meeting for Group Formation

Day 1

Timeframe	Sessions	Resource person
10:00-10:30	Session 1: Introduction of outline of the session (objectives, activities and timeframe)	NDFWM/District Forest Officer
10:30-11:00	Session 2: Introduction of outline of the extension services/micro programs	Facilitators/ NGO
11:00-11:15	Coffee Break	-
11:15-12:30	Questions and answers	Facilitators/ NGO
12:30-13:30	Lunch Break	-
13:30-16:30	Session 3: Identification of households who are willing to take part in	Facilitators/ NGO

Day 2

Timeframe	Activity	Resource person
10:00-10:30	Recapturing the day 1 sessions	Facilitators/ NGO
10:30-12:30	Session 3: Identification of households who would take part in the projects (including coffee break)	ditto
12:30-13:30	Lunch Break	-
13:30-16:30	Session 4: Selection of leaders and core members and discussion on roles and responsibilities of the respective members	Facilitators/ NGO

Day 3

Timeframe	Activity	Resource person
10:00-10:30	Recapturing the day 2 sessions	Facilitators/ NGO
10:30-12:30	Session 5: Discussion and determination of vision of the micro project, missions and rules/bylaws of the farmers/beneficiaries group	ditto
12:30-13:30	Lunch Break	-
13:30-16:00	Session 5: Discussion and determination of vision of the micro project, missions and rules/bylaws of the farmers/beneficiaries group	Facilitator / NGO
16:00-16:30	Clarification and questions Explanation of the next step	NDFWM/District Forest Officer Facilitators/ NGO

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

The meeting shall be conducted according to the following procedures.

Session 1: Introduce the purpose, outline and timeframe of the meeting to the participants.

Session 2: Give the participants a briefing about the outline of the extension services/micro programs (objectives, major activities, training courses planned, obligations/responsibilities of the members, and expected benefits that the members could receive) to help them get a clear picture of the extension services/micro programs.

Session 3: Ask the participant to identify and select about 20 to 30 households each in sub-villages by confirming their willingness to participate in the extension services/micro programs and examining their eligibility for membership. **Appendix-5.2**, which shows the guidelines on selection of members of farmers/beneficiaries groups for the respective extension services/micro programs, can be used in the meeting.



Tips on discussion

*Prior to the meeting, you should transcribe the guidelines in **Appendix-5.2** on flipcharts, so that the participants could clearly understand the eligibility for membership and their obligations.*

The participants may request you to select all the households in a village as the members of the groups, as they may like to prevent a feeling of unfairness among communities. However, you should maintain the number of the farmers/beneficiaries groups at 20~30 at a maximum, or it would be difficult to provide effective training courses.

Session 4 (1): Ask the participant to select the following key members of the groups among the selected members

- One leader,-One vice leader
- One secretary, and
- One or two core members depending on the number of the demonstration plots to be developed in the extension services/micro programs.

Session 4 (2): After selection of leaders of the groups, ask the participants to discuss roles and responsibilities of the respective members, namely, leader,

co-leader, secretary, and core member/s referring the standard roles and responsibilities of the members shown in **Appendix-5.3**;

Tips on discussion

*Prior to the meeting, you should transcribe the guidelines on standard roles and responsibilities of the members described in **Appendix-5.3** on flipcharts. The flipcharts should be used for explanation in the field to help the participants understand the roles and responsibilities of the key members.*

Session 5: Help the participants determine visions of the extension services/micro programs, missions of the farmers/beneficiaries groups, and rules/bylaws that the members should follow by referring the standard vision and missions of the extension services/micro programs described in **Appendix-5.4**.

Tips on discussion

*Likewise, you should transcribe the descriptions of **Appendix-5.4** on flipcharts prior to the meeting so that you can use them in the discussions.*

All the discussions should be taken down in flipcharts and a notebook.

(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- a. NDFWM/NDFC Officer/s, District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO
- c. Pre-made explanatory flipcharts with the descriptions in **Appendixes-5.2** and **5.3** are transcribed
- d. Flipcharts
- e. Felt-type pen
- f. Masking tape
- g. Snack, water and lunch for participants

(7) Home Works after the Meeting

The results of the meeting will be compiled in a format shown in **Appendixes-5.3** and **5.4**.

(8) Expected Outputs

Farmers/beneficiaries groups composed of 20 to 30 members will be organized with its vision, missions, and roles/responsibilities of the members at the sub-village level for each extension service/micro program.

【Phase 2.2-Step 2】 Study Tour/Cross Visit

The members of the farmers/beneficiaries groups shall be taken to a village that has carried out activities similar to the priority extension services/micro programs so that they could get a clear picture of the extension services/micro programs.

(1) Objectives

The main objective of the study tour/cross visit is to help leaders and core members of the farmers/beneficiaries groups have a clear picture of the extension services/micro programs through observation of actual results in the field and dialogues with the predecessors. Specifically, the study tour/cross visit aims to enable the members of the groups to: i) learn key activities introduced by the extension services/micro programs; ii) observe the results and effects of the activities; and iii) learn lessons from the experiences in the field.

(2) Expected Participants

A total of 20 to 30 members, which are group leaders, core members, some youths and women, and other members of the groups, will be selected as participants in the tour/visit. Due attention shall be paid to gender balance in the participants during the selection.

(3) Timeframe and Venue

One (1) day is used for a visit and meeting with communities in the host village, while another one (1) or two (2) more day/s may be needed for travels to and from the village.

(4) Proposed Agenda of the Session

The following is the standard agenda for the study tour.

Standard Agenda for the Study Tour

Timeframe	Activity	Resource person
10:00-10:30	Session 1: Introduction (Participants and objectives of the tour)	District Forest Officer Facilitators/ NGO
10:30-12:30	Session 2: Sharing of experiences in the host village - Major activities carried out in the village - Major results generated by the activities - Responsibilities of the members - Good lessons learned (including coffee break)	Facilitators/ NGO Villagers of the host village
12:30-13:30	Lunch	-
13:30-14:30	Session 3: Questions and answer	Facilitators/ NGO Villagers of the host village
14:30-15:30	Session 4: Field observation	ditto
15:30-16:00	Closing	District Forest Officer Facilitators/ NGO

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

The meeting with communities of the host village shall be conducted according to the following procedures.

Session 1 (1): Introduce the participants (the members of the working group) in the study tour to host communities and vice versa;

Session 1 (2): Explain the purpose, timeframe, and expected outputs of the tour to the participants;

- Session 2: Ask village leaders or communities in the host village to explain the following topics to the participants in the study tour.
- Objectives and major activities in which they have engaged
 - Results or any changes generated by the activities
 - Major roles of the respective members of the groups
 - Lessons learned over the course of the activities
- Session 3: Facilitate the discussions between the participants in the tour and communities in the host village.
- Session 4: Show the participants the results of the activities in the field (e.g., the farms with soil conservation measures, plantation with timber and industrial/fruit trees, and local commodities produced by groups for sales).



(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- a. District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO
- c. Transportation means for the participants
- d. Chairs and venue for the meeting in the host village
- e. Snack, water and lunch for participants
- f. Accommodations for the participants, if necessary

(7) Expected Outputs

The members of the working group will have a clear and concrete image and idea of extension services/micro programs, especially its activities, possible outputs, and the roles of the farmers/beneficiaries groups in implementation of the extension services/micro programs.

【Phase 2.2-Step 3】 Participatory Planning of Annual Work Plans of Extension Services/Micro Programs

The members of the farmers/beneficiaries groups shall prepare an annual work plan of the extension services/micro programs that they would engage in.

(1) Objectives

The main objective of the step is to help the members of the farmers/beneficiaries groups to prepare an annual work plan of the extension services/micro programs in a participatory manner.

(2) Expected Participants

Leaders and core members as well as other members including women and youth members will participate in the meeting. A total number of the participants in the meeting is estimated at 50 persons.

(3) Timeframe and Venue

A two (2)-day meeting will be held at the village office.

(4) Proposed Agenda of the Session

The following is the standard agenda for the meeting.

Standard Agenda for the Meeting on Annual Work Plan

Day 1

Timeframe	Sessions	Resource person
10:00-10:30	Session 1: Outline of the session (objectives, activities and timeframe)	NDFWM/District Forest Officer Facilitators/ NGO
10:30-11:00	Session 2: Introduction of the activities planned in the extension services/micro programs	Facilitators/ NGO
11:00-11:15	Coffee Break	-
11:15-12:30	Session 3: Group discussion on the work schedule and expected outputs of the activities	Facilitators/ NGO
12:30-13:30	Lunch Break	-
13:30-16:30	Session 3: Group discussion on the work schedule and expected outputs of the activities	Facilitators/ NGO

Day 2

Timeframe	Activity	Resource person
10:00-10:30	Recapturing the day 1 sessions	Facilitators/ NGO
10:30-12:30	Session 4: Group discussion on roles and responsibilities of the farmers /beneficiaries groups and NDFWM/NDFC//MAF and members responsible for the activities	ditto
12:30-13:30	Lunch Break	-
13:30-16:30	Session 4: Group discussion on roles and responsibilities of the farmers / beneficiaries groups and NDFWM/NDFC/MAF and members responsible for the respective activities	NDFWM/District Forest Officer Facilitators/ NGO

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

The meeting shall be conducted according to the following procedures.

Session 1 (1): Introduce the purpose, outline and timeframe of the meeting to the participants.



- Session 2: Introduce the activities planned in the extension services/micro programs by explaining:
- Objectives and outline of the activities
 - Target group, and
 - Timeframe of the activities.

Tips on discussion

*Prior to the meeting, you should prepare a set of explanatory flipcharts to outline the extension services/micro programs by transcribing the descriptions in **Appendix-5.5** on flipcharts. The explanatory flipcharts can be used for introduction of activities of the extension services/micro programs.*

- Session 3: Discuss timing and expected outputs of the respective activities (when the activities could/should be carried out and what results the activities could generate).
- Session 4 (1): Discuss the roles and responsibilities of the key stakeholders, such as the farmers/beneficiaries groups, NDFWM/NDCF/MAF, and facilitators/NGO.
- Session 4 (2): Ask the participants to identify and select members of the group who are responsible for fulfilling the roles of the groups.

Tips on discussion

Prior to the meeting, you should prepare the following format in flipcharts for discussions in sessions 3 and 4.

In the meeting, you should ask the participants to set up a schedule of the activities considering their traditional/religious and economic activities to ensure their participation in the activities of the extension services/micro programs.

Format for an Annual Work Plan

Activity	Aims of activity	Expected outputs	Timeframe												Roles of		Members responsible
			1	2	3	4	5	6	7	8	9	10	11	12	Group	MAF	

The discussions in the meeting shall be taken down in flipcharts and a notebook.

(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- a. NDFWM/NDFC Officer/s, District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO
- c. Explanatory flipcharts with the descriptions of the activities of the extension services/micro programs
- d. Blank format of the work plan prepared in flipcharts
- e. Flipcharts
- f. Felt-type pens
- g. Masking tape
- h. Snack, water and lunch for participants

(7) Home Works after the Meeting

The results of discussions in the meeting shall be encoded in MS excel to make a work plan of each priority extension service/micro program. The work plans shall be shared with the respective beneficiaries groups.

(8) Expected Outputs

Annual work plans, which could be accepted by the members of the farmers/beneficiaries groups, will be prepared in a participatory manner. Key members, such as leaders, core members, and others, could understand their roles in the respective activities.

【Phase 2.2-Step 4】 Conducts of Hands-on Training Courses/Farmers Field Schools (FFSs)

The members of the farmers/beneficiaries groups shall attend hands-on training courses or farmers field schools (FFSs) arranged by the extension services/micro programs.

(1) Objectives

The main objective of this step is to enable the members of the farmers/beneficiaries groups to learn/acquire the techniques/skills introduced through a series of hands-on training courses or farmers field schools (FFSs) of the extension services/micro programs. The training courses/FFSs shall be conducted in line with the following concepts to ensure that the members could acquire the techniques/skills through the training courses and apply the same to their own farms/plots.

- a. Hands-on: The “learning by doing” concept should be adopted so that the members could practice techniques/skills in the field.
- b. Participatory: All the members should practice them in the training courses.
- c. Continuous: The training courses or FFSs should be continuously conducted in the demonstration plots so that the members could go through the whole process of the extension services/micro programs in the field. By doing so, the members could realize the consequence and effectiveness of the techniques that they practice in the demonstration plots.

(2) Expected Participants

All the members of the beneficiaries groups will participate in the training courses.

(3) Timeframe of Training Courses

The whole period of the training courses or FFSs ranges from six (6) months to a year depending on the type of extension service/micro program. For instance, FFSs on seedling production and tree planting will start with the establishment of a nursery in March and end with the maintenance of seedlings planted in February/March in the following year, while those on sustainable upland farming will start with compost making in May and end in May/June in the following year with post-harvesting of maize grains. On the other hand, the duration of one training course varies from one to three days depending on the complexity or difficulty of technique/skill.

(4) Venue of Training Courses

The training courses/FFSs of agriculture and forestry extension services/micro programs will be held in a demonstration plot established in each sub-village in principle. The demonstration plot shall be selected among farms/plots owned by core members according to the following criteria:

- a. A farm/plot accessible to the majority of households;
- b. A farm/plot close to the main road of a village;
- c. A farm/plot that has been used for farming or shifting cultivation;
- d. A farm/plot that has features commonly observed in other farms; and
- e. A farm/plot that can be used for training purposes.

In addition to the above-mentioned conditions, the following principles should be agreed with between/among core and other members.

- a. The demonstration plot shall be used for a venue for training courses for all the members of the group.
- b. The products produced in the demonstration plot, except for trees and perennial crops planted in the plots, shall be shared among the members or used for the benefit of the group.
- c. All members of the group shall be responsible for maintenance and management of the demonstration plot of the group.
- d. After the extension service/micro project, the members shall decide whether or not the demonstration plot shall be used for the same purpose continuously or returned back to the owner.

(5) Training Courses/FFSs

A series of training courses/FFSs will be arranged and held over the course of the extension service/micro program. **Appendix-5.6** shows the training courses of the key extension services/micro programs. The standard time schedule of a training course is shown below.

Standard Timeframe of the Hands-on Training Course

Timeframe	Sessions	Resource person
09:00-09:30	Session 1: Introduction of the training courses	District Forest Officer Facilitators/ NGO
09:30-10:00	Session 2: Introduction of technique/skill introduced in the course	Facilitators/NGO
10:00-10:15	Coffee Break	-
11:15-12:30	Session 3: Practice of techniques/skills in the demonstration plot	Facilitators/NGO
12:30-13:30	Lunch Break	-
13:30-16:00	Session 3: Practice of techniques/skills in the demonstration plot	Facilitators/NGO
16:00-17:00	Session 4: Questions and Answer, Review and Evaluation	District Forest Officer Facilitators/NGO

Source: JICA Project Team (2015)

(6) Guidelines for the Meeting

The training courses shall be conducted in accordance with the following procedures.

- Session 1: Introduce the purpose and timeframe of the training course to the participants.
- Session 2: Explain the techniques/skills that the training course introduces.



Tips on discussion

Prior to the training course, you should prepare a set of explanatory flipcharts which introduces the outline of techniques to be demonstrated in the training course. You should use the explanatory flipcharts to explain to the members: i) effectiveness of techniques, ii) technical features (difference from the conventional method), iii) advantages and disadvantages, and iv) method of application.

Session 3 (1): Move to the demonstration plot and demonstrate the technique/skill to the participants.

Session 3 (2): Ask the participants to do the same thing in the plot to practice the techniques/skills.

Session 3 (3): Provide technical advice/coaching to the participants to enable them to apply the techniques/skills properly.

Session 4 (1): Help the participants clear their doubts through questions and answers.

Session 4 (2): Ask the participants to review and evaluate the techniques/skills that they have practiced in the demonstration plot.

Notes of discussions shall be taken at session 4.

(7) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- a. District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO
- c. Explanatory flipcharts with outline of techniques/skills
- d. Farm tools/materials (if necessary)
- e. Flipcharts
- f. Felt-type pens
- g. Masking tape
- h. Snack, water and lunch for participants

(8) Expected Outputs

The members of the farmers/beneficiaries groups will learn and acquire a series of techniques/skills useful for sustainable forest and land management.



【Phase 2.2-Step 5】 Annual Evaluation and Planning of an Annual Work Plan

The members of the farmers/beneficiaries groups shall review and evaluate the activities of the extension services/micro programs and prepare annual work plans of the same for the following year based on the results of the evaluation.

(1) Objectives

The main objective of this step is to help the members of the farmers/beneficiaries groups, especially leaders and core members, evaluate the results of the extension services/micro programs and formulate realistic-cum-effective annual work plans of the same for the following year in a participatory manner. To this end, the members shall:

- a. Review and evaluate the process and results of the activities (i.e., hands-on training courses) of the extension services/micro programs;
- b. Review the participation of the members in the activities;
- c. Review and evaluate the effectiveness of training courses;
- d. Identify difficulties that they have faced; and
- e. Extract lessons learned from the extension services/micro programs.

(2) Expected Participants

Leaders and core members as well as other members including women and youth members will participate in the meeting. The total number of the participants in the meeting is estimated at 50 persons.

(3) Timeframe and Venue

A two (2)-day meeting will be held at the village office.

(4) Proposed Agenda of the Session

The following is the standard agenda for the meeting.

Standard Agenda for the Meeting on Annual Evaluation and Planning

Day 1

Timeframe	Sessions	Resource person
10:00-10:30	Session 1: Outline of the session (objectives, activities and timeframe)	NDFWM/District Forest Officer Facilitators/NGO
10:30-11:00	Session 2: Introduction of the activities/training courses made by the project with the numbers of participants in the activities/training courses	Facilitators/NGO
11:00-11:15	Coffee Break	-
11:15-12:30	Session 3: Review and evaluation of the project activities as compared with the expected targets shown in the work plan	Facilitators/NGO
12:30-13:30	Lunch Break	-
13:30-15:45	Session 4: Discussion/assessment of difficulties that the members faced	Facilitators/NGO
15:45-16:30	Session 5: Necessary action to be taken for improvement	ditto

Day 2

Timeframe	Activity	Expected outputs
10:00-10:30	Recapturing the day 1 sessions	Facilitators/NGO
10:30-11:30	Session 6: Briefing of the activities planned for the micro projects	ditto
11:30-11:45	Coffee Break	-
11:45-13:00	Session 7: Discussion and preparation of an annual work plan	Facilitators/NGO
13:00-14:00	Lunch Break	-
14:00-16:30	Session 7: Discussion and preparation of an annual work plan	Facilitators/NGO
16:30-17:00	Wrap up	NDFWM/District Forest Officer Facilitators/NGO

Source: JICA Project Team (2015)

(5) Guidelines for the Meeting

The meeting shall be held according to the following procedures.

Session 1 (1): Introduce the purpose, outline and timeframe of the meeting to the participants.

Session 2 (1): Introduce: i) training courses held at the demonstration plots, ii) major techniques/skills introduced, and iii) the level of participation of the members in the respective training courses.



Tips on discussion

Prior to the meeting, you should prepare explanatory flipcharts showing training courses held, topics and techniques introduced in the respective training courses, and numbers of participants in the respective courses using the format shown below.

Training courses	Major topics/techniques introduced	Number of participants

Session 3: Ask the participants to evaluate the results as compared to the outputs expected in the planning of the annual work plan in Section 5.2.3.

Session 4: Ask the participants to enumerate difficulties that they have faced in the course of the extension services/micro programs.

Session 5: Help the participants figure out solutions/recommended actions for improvement.

Session 6: Introduce activities of the extension services/micro programs planned in the following year along with aims, timeframes, and expected outputs of the respective activities; and

Session 7: Help the participants make an annual work plan using the format shown in Step 3.



Tips on discussion

Prior to the meeting, you should prepare a blank format of an annual work plan shown in Step 3 in flipcharts. The format shall be used for discussion in session 7.

The discussions in the meeting shall be taken down in flipcharts and a notebook.

(6) Inputs (Human Resources and Materials) needed

The following inputs are required for this step.

- a. NDFWM/NDFC Officer/s, District Forest Officer/s, and Forest Guard/s
- b. Facilitators/NGO
- c. Explanatory flipcharts with the results of the activities of the micro projects
- d. Flipcharts with a blank format of an annual work plan
- e. Flipcharts
- f. Felt-type pens
- g. Masking tape
- h. Snack, water and lunch for participants

(7) Home Works after the Meeting

The results of discussions in the meeting shall be encoded in MS excel to prepare annual work plans of the extension services/micro programs for the second year. The work plans shall be shared with the farmers/beneficiaries groups of the respective extension services/micro programs.

(8) Expected Outputs

Annual work plans of the extension services/micro programs for the second year will be developed by the members of the farmers/beneficiaries groups in consideration of lessons learned from the activities in the first year.

6. Mechanism for Implementation of the Manual

This chapter introduces: i) institutional framework of implementation of this manual, ii) necessary arrangements to be made for smooth and effective implementation, and iii) standard implementation schedule/timeframe at the village level.

6.1 Institutional Framework for Implementation

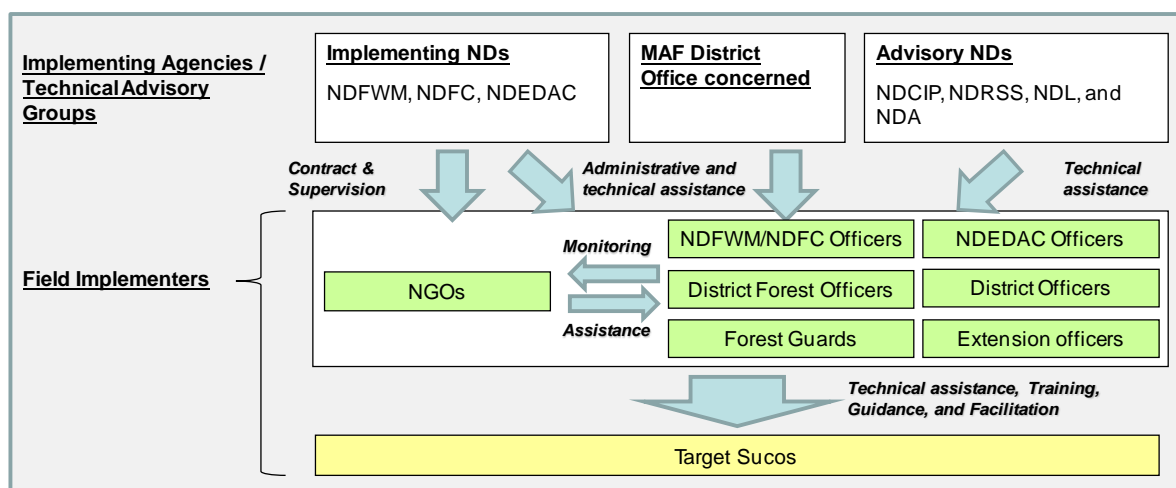
6.1.1 Implementation System

The National Directorate of Forestry (NDF), which split into the National Directorate of Forest and Watershed Management (NDFWM) and the National Directorate of Nature Conservation (NDNC) in 2014, shall be the principal implementing agency for implementation of the manual, while the MAF District Offices concerned and the National Directorate of Extension and Development of Agriculture and Communities (NDEDAC) shall function as co-implementing agencies, especially when implementing the agriculture and forestry extension services/micro programs.

Other national directorates, such as National Directorate of Coffee and Industrial Plants (NDCIP), the National Directorate of Agribusiness (NDA), the National Directorate of Crops and Horticulture (NDCH), and the National Directorate for Livestock (NDL), may be involved in the implementation of the extension services/micro projects as technical back supports.

In addition to the government agencies, NGOs will play an important role in introduction and establishment of the CB-NRM mechanism at the village level, since the majority of MAF officers still has less experience in working with communities as facilitators. It is, therefore, essential to use NGOs capable as facilitators in the fields of rural development, reforestation, and agricultural development.

Consequently, the following organizational framework, which is presented in Chapter 3, is recommended for promotion of the CB-NRM mechanism.



Organizational Structure for Introduction of the CB-NRM Mechanism

The expected roles and responsibilities of the key players in the framework mentioned above are further described as follows:

Expected Roles and Responsibilities of the Key Players

Key players	Expected roles and responsibilities
1. Central Level	
(1) NDFWM/NDNC (NDFWM/ NDNC Officers)	<ol style="list-style-type: none"> 1. Be responsible for preparation of necessary policies, guidelines, and national programs on CB-NRM promotion. 2. Secure necessary budget to implement a national program on promotion of CB-NRM. 3. Provide necessary administrative and technical support to the field implementers, i.e., District Forest Officers, Forest Guards, and NGOs. 4. Hire/Employ NGOs for the field works. 5. Help NGOs in introduction and establishment of the CB-NRM mechanism at the village level with District Forest Officers and Forest Guards. 6. Monitor and supervise NGO's works with District Forest Officers and Forest Guards. 7. Assist District MAF Office in hiring NGOs in the case of a district program.
(2) NDEADC	<ol style="list-style-type: none"> 1. Be responsible for preparation of necessary policies, guidelines, and national programs on agricultural extension related to CB-NRM. 2. Provide technical advice and assistance to the field implementers, i.e., District Officers, Extension Officers and NGOs. 3. Help NGOs in implementation of the extension services/micro programs with NDFWM/ NDNC Officers and District Forest Officers. 4. Monitor and supervise NGO's works for the extension services/micro programs with NDFWM/NDFC Officers and District Forest Officers.
(3) Other National Directorates	<ol style="list-style-type: none"> 1. Provide technical advice and assistance to the field implementers, in the relevant technical fields in coordination with NDFWM/NDNC and NDEADC.
2. District Level	
(1) District Director	<ol style="list-style-type: none"> 1. Be responsible for planning of a district program on promotion of CB-NRM in line with the national programs. 2. Secure necessary budget enough to implement a district program on promotion of CB-NRM 3. Provide necessary administrative and technical support to District Officers (i.e., Crops and Horticulture, Coffee and Industrial Plant, and Livestock), Sub-district Extension Coordinators, and Extension Officers. 4. Hire/Employ NGOs for the field works in the case of a district program.
(2) District Forest Officer	<ol style="list-style-type: none"> 1. Work together with NGOs over the course of introduction and establishment of the CB-NRM mechanism at the village level. 2. Monitor NGOs' activities together with NDFWM/NDNC Officers, District Officers in other technical fields, Sub-district Extension Coordinators, and Forest Guards. 3. Provide guidance and orientation to local communities toward sustainable natural resource management together with NGOs.
(3) Other District Officers	<ol style="list-style-type: none"> 1. Work together with NGOs in the implementation of the extension services/micro programs. 2. Monitor NGOs' activities together with NDFWM/NDNC Officers, District Forestry Officers, Sub-district Extension Coordinators, and Forest Guards. 3. Provide technical guidance to local communities in the relevant technical fields in coordination with NGOs, Sub-district Extension Coordinators, and Extension Officers.
3. Sub-district/Village levels	
(1) Forest Guards	<ol style="list-style-type: none"> 1. Provide guidance and orientation to local communities toward sustainable natural resource management in coordination with District Forest Officers and NGOs. 2. Monitor NGO's activities together with NDFWM/NDNC Officers, District Forestry Officers, District Officers in other fields, and Sub-district Extension Coordinators.
(2) Sub-district Coordinators and Extension Officers	<ol style="list-style-type: none"> 1. Cooperate with NDFWM/NDNC Officers, District Forestry Officers, District Officers in other fields, and Forest Guards in monitoring and supervision of NGO's works.

Key players	Expected roles and responsibilities
	2. Provide extension services on techniques/skills useful for CB-NRM in collaboration with NGOs.
(3) NGO	<ol style="list-style-type: none"> 1. Be responsible for implementation of the field activities as a contractor. 2. Perform as a main facilitator throughout the field works. 3. Guide and orient local communities toward sustainable natural resource management in coordination with NDFWM/NDNC Officers, District Forest Officers and Forest Guards. 4. Arrange and organize a series of training courses/extension services for local communities on techniques/skills useful for CB-NRM in coordination with NDFWM Officers, NDEDAC Officers, District Officers, Sub-district Extension Coordinators, Forest Guards, and Extension Officers. 5. Assist local communities, in collaboration with NDFWM/NDNC Officers, District Forest Officers and Forest Guards, in protection and management of forests and natural resources in accordance with the village regulations and future land use plan.
(4) Local village leaders	<ol style="list-style-type: none"> 1. Be responsible for protection and management of forests and other natural resources in the localities in accordance with the village regulations. 2. Instruct and encourage local communities to follow the village regulations for sustainable forest and natural resource management. 3. Encourage local communities to participate in the processes of introducing and establishing the CB-NRM mechanism. 4. Encourage local communities to apply techniques/skills useful for CB-NRM, which will be introduced through a series of hands-on training courses/FFSs arranged by the extension services/micro programs, to their own plots/farms.

Source: JICA Project Team (2015)

6.1.2 Policy and Legislative Frameworks for CB-NRM

The National Forest Sector Policy is the sole government document to orient the forest sector in Timor-Leste and indicate the direction that the sector should aim at. The CB-NRM mechanism and its activities are closely consistent with strategies enumerated in the National Forest Policy.

The Forest Management Bill is another important document which indicates the framework and process of protecting and managing forest resources in the country, although it has been discussed in the council of ministers since 2009. The CB-NRM mechanism can be incorporated into a proposed instrument for sustainable forest management in the Forest Management Bill, named “Community Forest Management Agreement (CFMA).”

Appendix-6.1 shows the results of a simple analysis made by the JICA CN-NRM Project and NDF on the consistency of the CB-NRM mechanism with the National Forest Policy and Forest Management Bill. The following is its summary.

(1) National Forest Policy (2008)

The National Forestry Policy issued in 2008 set the sustainable management of forest resources and watersheds as its principal goal to achieve by 2020. The goal is supported by the following six (6) policy objectives.

- a. Protection of Forests
- b. Community and Private Participation in Forestry Development
- c. Watershed Conservation
- d. Afforestation and Land Restoration
- e. Development of a Private Sector Business Environment

f. Forestry Sector Institutional Development

The introduction of the CB-NRM mechanism could contribute to achievement of the policy goal synergizing the strategies enumerated in the policy, especially those for “Protection of Forest,” “Community and Private Participation in Forestry Development,” “Watershed Conservation,” and “Afforestation and Land Restoration.”

(2) Forest Management Bill

The Forest Management Bill, of which approval has been pending in the council of ministers since 2009, is a key legislative framework for NDFWM/NDNC to protect and manage forest resources in a sustainable manner. As described in **Appendix-6.1** in detail, “community-based forest management” is the mainstream concept adopted by the Forest Management Bill for sustainable forest management in Timor-Leste. The bill clearly states that communities could claim access, use, and management rights to forest areas on condition that communities can exchange an agreement (Community Forestry Management Agreement: CFMA) with NDFWM/NDNC in accordance with the terms and conditions specified in the Forest Management Bill.

The CB-NRM mechanism can facilitate the process of acquisition of CFMA at the village level when the Forest Management Bill is enacted, as the deliverables generated through PLUP can be used as materials for CFMA, such as a land use map, rules on resource management, harvesting arrangements, and protection/conservation arrangements.

6.2 Necessary Arrangements for Implementation

The policy recommendations developed by the JICA-MAF CB-NRM Project make the following eight recommendations for promotion and expansion of the CB-NRM mechanism in Timor-Leste, especially in the critical river basins in the country.

- Recommendation 1:** Mainstream CB-NRM as a key approach to sustainable forest management by issuing a new policy document which aims to roll out the CB-NRM mechanism in the critically important river basins.
- Recommendation 2:** Expand the CB-NRM mechanism in villages as planned under Forest Conservation Program in the Forest Conservation Plan.
- Recommendation 3:** Form a new department specifically for CB-NRM or Community-Based Forest Management (CBFM) in NDFWM.
- Recommendation 4:** Enact the Forest Management Decree along with its supporting guidelines, especially those for introduction of CFMA.
- Recommendation 5:** Build the capacities of key stakeholders, especially MAF/NDFWM/NDNC and NGOs, to assist communities and their leaders in introduction of the CB-NRM mechanism and preparation for CFMA in the future.
- Recommendation 6:** Effectively use NGOs until MAF and NDFWM/NDNC are capable to carry out the field facilitation.

Recommendation 7: Ensure the field officers of NDFWM/NDNC/MAF can get necessary administrative and financial support for them to engage in the promotion of the CB-NRM mechanism in the field.

Recommendation 8: Integrate the process of introducing the CB-NRM mechanism or granting CFMA into the process of a village development planning.

Among other things, recommendations 1, 3, 5, 6, and 7 should be put into action for effective implementation and smooth operations of the activities described in the manual.

6.3 Standard Implementation Schedule in a Village

The following table shows the recommended timeframes of the respective activities described in Chapters 4 and 5.

Key Processes and Steps/Activities associated with the respective Processes				
Phase	Process	Stage	Timeframe	Remarks
1. Assessment and planning	1.1 Participatory land use planning	Stage 1	1~2 months	The process should begin in May or June so that the whole process of PLUP can be completed before September when communities start the land preparation.
		Stage 2	2~3 months	Likewise, the activities of stage 2 of PLUP should be completed before September to reduce the incidence of wildfires caused by a burning practice during land preparation.
	1.2 Selection of extension services/micro programs	-	1~2 months	The selection of extension services/micro programs can begin after the end of stage 1 of PLUP, as long as a field facilitator is capable to conduct the sessions of stage 2 of PLUP simultaneously with those for selection of extension services/micro programs. In case that the selection of extension services/micro programs starts is carried out after PLUP (stage 2 of PLUP), it could be completed before January/February so that the extension services/micro programs can begin in March/April.
2. Implementation and monitoring	2.1 Institutionalization of the village regulations	-	2 ~ 3 years	The monthly monitoring meeting should start from one month after the Tara Bandu ceremony.
	2.2 Implementation of the priority extension services/micro programs	-	2 ~ 3 years	If the extension services/ micro programs start their activities in March/April, hands-on training course/FFS on compost making and/or nursery establishment should be carried out in the same month.

Source: JICA Project Team (2015)

The standard implementation schedule of the whole process of the establishment of the CB-NRM mechanism at the village level is shown below.

Process	Steps: Activities	Year 1												Year 2												Year 3												
		4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12				
1. Participatory land use planning	Stage 1: Preparatory works and Land Use Planing																																					
	Step 1	Consultation with local leaders	■																																			
	Step 2	Organization/Formation of the working group		■																																		
	Step 3	Study tour to one of the JICA project villages			■																																	
	Step 4	Present land use mapping				■																																
	Step 5	Future land use planning					■																															
	Stage 2: Formulation of Village Regulations																																					
	Step 1	Review of the past and existing rules				■																																
	Step 2	Discussion of the draft village regulations					■																															
	Step 3	Review of the draft village regulations						■																														
	Step 4	Consultation with communities at aldeia level							■																													
	Step 5	Preparation for enforcement of the								■																												
	Step 6	Organization of Tar Bandu ceremony									■																											
2. Selection of agri-/forest-based extension services (micro project) for implementation of the future land use plan	Step 1	Examination of possible micro projects									■																											
	Step 2	Evaluation of the short-listed micro projects										■																										
	Step 3	Discussions of scope of the priority micro projects											■																									
3. Institutionalization of the village regulations	Step 1	Monthly monitoring meeting at suco level								■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
	Step 2	Bi-monthly or quarterly meeting at aldeia level										■		■		■		■		■		■		■		■		■		■		■		■				
	Step 3	Annual evaluation meting at suco level											■												■											■		
4. Implementation of the priority extension services / micro projects	Step 1	Organization of farmers' / beneficiaries' groups										■																										
	Step 2	Preparation of a work plan in a participatory manner											■																									
	Step 3	Conducts of a series of hands-on training courses													■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
	Step 4	Annual evaluation and planning of the work plan																																	■			

Standard Version of Implementation Schedule for Establishment of the CB-NRM Mechanism in a Village
Source: JICA Project Team (2015)

The following figure shows the rapid implementation schedule of the process in the case the selection of agriculture and forestry extension services is commenced immediate after Stage 1 of PLUP.

Process	Steps: Activities	Year 1												Year 2												Year 3												
		4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12				
1. Participatory land use planning	Stage 1: Preparatory works and Land Use Planing																																					
	Step 1	Consultation with local leaders	■																																			
	Step 2	Organization/Formation of the working group	■																																			
	Step 3	Study tour to one of the JICA project villages	■																																			
	Step 4	Present land use mapping	■																																			
	Step 5	Future land use planning	■																																			
	Stage 2: Formulation of Village Regulations																																					
	Step 1	Review of the past and existing rules	■																																			
	Step 2	Discussion of the draft village regulations	■																																			
	Step 3	Review of the draft village regulations	■																																			
	Step 4	Consultation with communities at aldeia level	■																																			
	Step 5	Preparation for enforcement of the	■																																			
	Step 6	Organization of Tar Bandu ceremony	■																																			
2. Selection of agri-/forest-based extension services (micro project) for implementation of the future land use plan	Step 1	Examination of possible micro projects	■																																			
	Step 2	Evaluation of the short-listed micro projects	■																																			
	Step 3	Discussions of scope of the priority micro projects	■																																			
3. Institutionalization of the village regulations	Step 1	Monthly monitoring meeting at suco level						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
	Step 2	Quarterly meeting at aldeia level							■			■			■			■			■			■			■			■			■					
	Step 3	Annual evaluation meting at suco level								■											■													■				
4. Implementation of the priority extension services / micro projects	Step 1	Organization of farmers' / beneficiaries' groups					■																															
	Step 2	Preparation of a work plan in a participatory manner					■																															
	Step 3	Conducts of a series of hands-on training courses							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
	Step 4	Annual evaluation and planning of the work plan												■														■										

Rapid Version of Implementation Schedule for Establishment of the CB-NRM Mechanism in a Village
Source: JICA Project Team (2015)

6.4 Effectiveness / Revision of the Manual

This operation manual should be reviewed during the implementation of the manual at times. Whenever any descriptions of the manual are judged invalid or inappropriate, the manual should be reviewed and amended to keep it applicable and operational. Likewise, if the National Forest Sector Policy is revised or any new policy or upper-level documents are newly developed and issued, this manual should be reviewed and, if necessary, revised/amended according to the changes.

The revised manual shall be officially approved by Director General of Forestry, MAF.

Appendix-4.1

***Sample of Roles and Responsibilities of
Members of the Working Groups for
PLUP in One of the JICA Project
Villages***

Appendix-4.1 Sample of Roles and Responsibilities of Members of the Working Group for PLUP in One of the JICA Project Villages

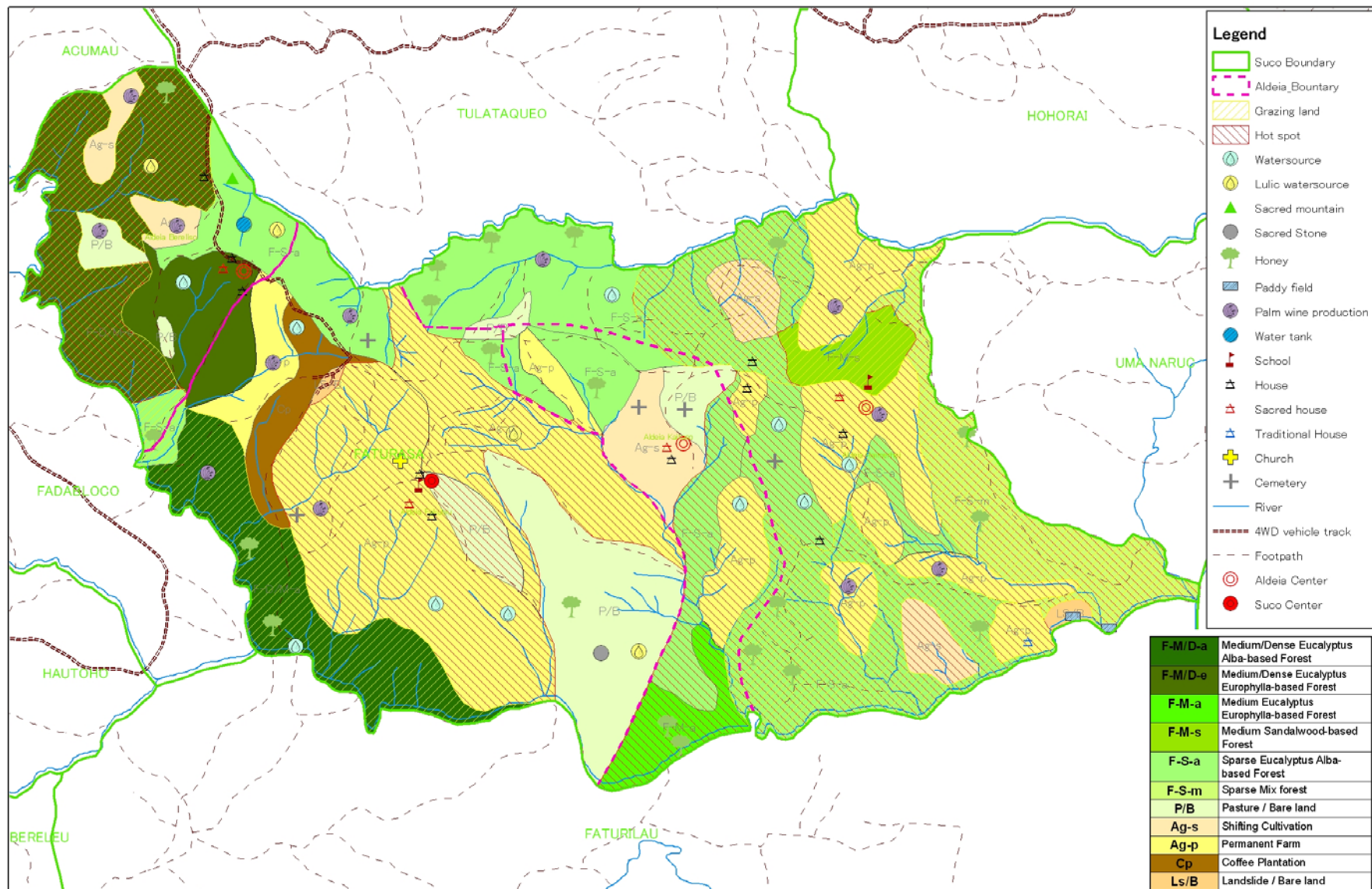
Name	Position	Roles and Responsibilities
Chef de Suco	Group Leader	<ul style="list-style-type: none"> ➤ Lead the work of the group ➤ Coordinate with Chef de Aldeia for the work ➤ Lead the meeting ➤ Make and implement a plan together with local communities ➤ Monitor the activities in each aldeia ➤ Remind the group members of the responsibilities of the members and the activities ➤ Provide information and briefing of the village to the visitors ➤ Pay attention to the members ➤ Coordination with NGO and government office ➤ Organization of tara bandu ceremony ➤ Overall responsibility for implementation of the village regulations ➤ Be responsible for settlement of any issues in the village in coordination with chef de aldeia, Lianain, and suco councilor.
Secretary of Village	Co-group leader	<ul style="list-style-type: none"> ➤ Take notes in the meeting and share the memos with the group members ➤ Act as a chief when the chief can not function. ➤ Provide information to the members. ➤ File documents ➤ Act as a moderator in the meeting ➤ Assist the chief in the fulfillment of his tasks and responsibilities ➤ Coordinate with other members for meetings
Chef de Aldeia	Member	<ul style="list-style-type: none"> ➤ Receive information for the chief of the group and disseminate it to local communities in the respective aldeia ➤ Lead the meeting at aldeia level ➤ Make report to chief of the group ➤ Provide information of the respective aldeias to the chief of the group ➤ Responsibility for implementation of the village regulations in the respective aldeias ➤ Be responsible for settlement of any issues in the respective aldeias in coordination with Lianain, and suco councilor.
Lianain (Aldeia level and Suco level)	Member	<ul style="list-style-type: none"> ➤ Solve the problems in the communities at both levels ➤ In case the issue can not be solved at aldeia level, the issue should be raised to suco. Lianain at suco level handle such an issue. In case the issue can not be solved even at suco level, the issue should be brought to the Sub-district Administrative Office. ➤ Assist the chief of the group and chef de aldeia in the dissemination of the information ➤ Share his knowledge and experience in reviewing the village regulations. ➤ Provide advice and input to the Working Group in the meeting.
Suco councilor	Member	<ul style="list-style-type: none"> ➤ Make a plan for the village together with Chef de Suco and resolve the issues raised to suco together with Lia Nain at Suco level. ➤ Provide advice in the implementation of the village regulations
Suco Police	Member	<ul style="list-style-type: none"> ➤ Look after the community's plantations ➤ Raise communities' awareness of the village regulations ➤ Report any violated cases to chef de aldeia and chef de suco
Community	Member	<ul style="list-style-type: none"> ➤ Participate in the meetings ➤ To be involved in any kind of activities

General Rules of the members

- Actively participate in the meetings and discussions
- Be time-punctual (Respect the time agreed upon by the members)
- Do not make any personal attack in discussion
- Follow/obey the group leader
- Follow the agenda agreed on
- Meetings will be effective with the attendance of the majority of the members and agreement among the members on the effectiveness of the meetings.
- Inform Chief of the Group of his absence with a reason whenever the member can not attend the meeting.
- Fulfill the respective roles and responsibilities of the members.

Appendix-4.2

Present Land Use Map of Suco Faturasa



Community-based Integrated Watershed Management in Lacio and Comoro River Basins
in the Democratic Republic of Timor-Leste

Present Land Use Map of Suco Faturasa



Scale 1:36,000

0.1 0.3 0.6 0.9 1.2
Km



Appendix-4.2 Present Land Use Map of Suco Faturasa

Appendix-4.3

***Sample of Format for Discussions of
Functions, Current Practices, and
Importance of the Present Land Uses***

**Appendix-4.3 Sample of Format for Discussions of Functions,
Current Practices, and Importance of the Present Land Uses**

**Appendix-4.3 Sample of Format for Discussions of Functions, Current Practices, and
Importance of the Present Land Uses**

Land use	Function	Current Practice	Importance
Dense forest (Ai Bubur)	<ul style="list-style-type: none"> - Source of materials for housing - Source of materials for fencing - Source of firewood (Ai bubur is very strong; therefore, they use Ai bubur for housing.) - Place for grazing animals - Habitat for wild animals - Protection of soils from erosion - Protection of water sources 	<ul style="list-style-type: none"> - Can cut Ai bubur with permission from CDA and the land owner in Aldeia 1 and 2 and need to meet the criteria when cutting trees. - Can cut Ai bubur without permission from CDA or the land owner in Aldeia 3, but need to meet the criteria when cutting trees. - In case that the communities in Aldeia 1 and 2 as well as those in other suco like to cut, they need to get the permission from CDA and the land owner. - There is no regulation to manage the area. - No seedlings has been planted. - Forest fires have sometimes taken place in Aldeia 3 caused by fires coming from the neighboring villages. - There has been no fire in Aldeias 2 and 1. 	<ul style="list-style-type: none"> - Very important - Need to protect Ai bubur dense forest to maintain its function. - Need to select trees when cutting trees (only cut big ones but protect small ones so that maintain the forest). - Cut trees only for building a house but not for selling.
Medium forest (Ai bubur) -	<ul style="list-style-type: none"> - Source of materials for housing - Source of materials for fencing - Source of firewood - Place for grazing animals - Habitat for wild animals - Protection of soils from erosion - Protection of water sources - Reserve for future farms 	Sam as above	<ul style="list-style-type: none"> - Very important - Need to protect Ai bubur medium forest to maintain its function. - Need to select trees when cutting trees (only cut big ones but protect small ones so that maintain the forest). - Cut trees only for building a house but not for selling. - Need to plant ai kakeu and ai samtuku to improve the forest
Sparce forest (Ai bubur)	<ul style="list-style-type: none"> - Source of firewood - Place for grazing animals - Protection of soils from erosion - Protection of water sources - Reserve for future farms 	<ul style="list-style-type: none"> - Can cut Ai bubur without permission from CDA or the land owner in Aldeia 3, but need to meet the criteria when cutting trees. - In case that the communities in Aldeia 1 and 2 as well as those in other suco like to cut, they need to get the permission from CDA and the land owner. - There is no regulation to manage the area. - No seedlings has been planted. - Forest fires have sometimes taken place in Aldeia 3 caused by fires coming from the neighboring villages. 	<ul style="list-style-type: none"> - Important - Need to protect the area. - Need to plant seedlings of Ai kakeu and Samtuku to make the soils fertile.
Dense forest (Ai ru) Aldeia 01	<ul style="list-style-type: none"> - Source of materials for housing (beam) - Source of firewood - Place for grazing animals - Habitat for wild animals - Protection of soils from erosion - Protection of water 	<ul style="list-style-type: none"> - Ai ru in Aldeia 2 is not currently used as the ownership of the area is questioned. - Ai ru in Aldeia 1 can be cut with permission from CDA and the land owner but need to meet the criteria when cutting trees. - There is no regulation to manage the area. 	<ul style="list-style-type: none"> - Very important - Need to protect Ai ru dense forest to maintain its function. - Need to select trees when cutting trees. - Ai ru is more important than Ai bubut in Aldeia 01 as it can be used for multiple

**Appendix-4.3 Sample of Format for Discussions of Functions,
Current Practices, and Importance of the Present Land Uses**

Land use	Function	Current Practice	Importance
	<ul style="list-style-type: none"> sources - Improve soil fertility 	<ul style="list-style-type: none"> - No seedlings has been planted. - There has been no forest fire. 	<p>purposes. But Ai bubur is more important for people in Aldeia 02, as there is no Ai ru forest there.</p>
Coffee plantation	<ul style="list-style-type: none"> - Production of coffee to be sold and drunk - Protection of water sources - Habitat for wild animals (Laku) - Maintenance and improvement of soil fertility - Source of firewood 	<ul style="list-style-type: none"> - In general, coffee trees are not cut as they are important. - Use dead branches and trees for fire wood. - New seedlings of coffee and shade trees can be planted. - There has been no forest fire. 	<ul style="list-style-type: none"> - Important (They can not work without coffee.) - Need to protect coffee plantations. - Need to plant seedlings of coffee and shade trees. <p>(Coffee plantation is more important for the area for shifting cultivation as it has more functions, such as a source of cash income, habitat for wild animal and protection of the source of water.)</p>
Permanent farm (near houses) Cassava, Maize, Beans (red bean, soy bean, and long bean), Tunis (chick peas), Taro, Banana, Orange, Kontas. etc.	<ul style="list-style-type: none"> - Production of food crops every year - Production of cash crops (vegetables) 	<ul style="list-style-type: none"> - Grasses slashed/mown are piled at a part of the farm and burned. 	<ul style="list-style-type: none"> - Very important - Need to continue using the same farms for crop production - Need to conserve soil fertility by introduction of soil conservation measures. <p>(Permanent farm is the most important area among the areas used for agricultural production.)</p>
Area for shifting cultivation Maize, Tunis, Fore, Banana, Cassava, Rehe (for maintenance of soil fertility)	<ul style="list-style-type: none"> - Production of food crops - Production of fruits (mango and orange) <p>(A temporary house is built at the area for shifting cultivation, which is far from the house.)</p>	<ul style="list-style-type: none"> - After slashing grasses/pruning branches and making firebreak lines, the farm is burned. 	<ul style="list-style-type: none"> - Important - Need to plant seedlings of fruits and leguminous trees. - Need to conserve soil fertility by introduction of soil conservation measures.
Water sources	<ul style="list-style-type: none"> - Domestic uses (drinking, washing, bathing, cooking) - Watering home garden (vegetables) and orange - Watering animals 	<ul style="list-style-type: none"> - 	<ul style="list-style-type: none"> - Very important - Need to protect the water sources from burning, cutting trees, animal grazing and farming. - Need to plant trees near the source.

Appendix-4.4

***Future Land Use Map and Recommended
Land Management Practices of Land Use
Categories of Suco Tohumeta***



Legend

Usa-Rai ba Futuru	Descripsaun	Usa-Rai agora	Descripsaun
ALT-AIR	Ai Laran Tuan-Ai Ru	ALT-AIR	Ai Laran Tuan – Ai Ru
ALT-AIKhr	Ai Laran Tuan-Ai Kahur	ALN-AIB	Ai Laran Naruk – Ai Bubur
ALN-AIKhr/PAI	Ai Laran Naton – Ai Kahur/Plantasaun Ai	ALT-AIB	Ai Laran Ituan – Ai Bubur
To-P/ PAI+PAI+Cp	Toos permanente Plantasaun ai/Plantasaun ai fuan/Plantasaun kafe	To-Mb	Toos-Muda ba Mai
Uc-Tp	Uma comunidade ho Toos permanente (toos uma hun)	Uc-Tp	Uma comunidade ho Toos Permanente
PAI+PAI+Cp	Plantasaun ai/Plantasaun ai fuan/Plantasaun kafe	A-PA	Area Plantasaun Ai
PKhr	Plantasaun Kahur	P	Plantasaun
Cp	Plantasaun Kafe	Cp	Plantasaun Kafe

	Toos permanente (toos uma hun)		Toos Permanente
PAI+PAI+Cp	Plantasaun ai/Plantasaun ai fuan/Plantasaun kafe	A-PA	Area Plantasaun Ai
PKhr	Plantasaun Kahur	P	Plantasaun
Cp	Plantasaun Kafe	Cp	Plantasaun Kafe

Landmark	Tetun	English
	Be Matan	Water source
	Be Matan Lulic	Sacred (Lulic) water source
	Centro Suco	Suco Center
	Rai Lulic	Sacred Place
	Uma Lulic	Traditional house
	Area klinika	Clinic
	Escola	School

Landmark	Tetun	English
	Be Matan	Water source
	Be Matan Lulic	Sacred (Lulic) water source
	Centro Suco	Suco Center
	Rai Lulic	Sacred Place
	Uma Lulic	Traditional house
	Area klinika	Clinic
	Escola	School
	Capela	Church
	Cemiterio/Rate	Cemetery

Appendix 4.4 (1) Future Land Use Map of Suco Tohumeta

Appendix-4.4 (2) Recommended Land Management Practices of the Land Use Categories

Future land use	Permitted Activities	Prohibited Activities
- Dense Protected Forest (Ai Ru)	<ul style="list-style-type: none"> ➤ Cut Ai Bubur and Ai Ru for domestic uses with permission of Chef de Suco and the land owner (Need to get the permission of MAF when cutting trees more than 1 m3) ➤ Collect fallen branches and cut fallen trees for firewood. ➤ Graze animals with a/ care taker/s. 	<ul style="list-style-type: none"> ➤ Don't burn the area. ➤ Don't open a new farm. ➤ Don't cut trees for sale. ➤ Don't cut trees even for domestic purposes without permission of Chef de Suco and the land owner. ➤ Don't graze animals freely in the area. ➤ Don't hunt wild animals.
- Dense Regenerated-Protected Forest (Ai bubur and other species)	<ul style="list-style-type: none"> ➤ Collect fallen branches and cut fallen trees for firewood. ➤ Graze animals with a/ care taker/s. ➤ Rear animal tied to trees/sticks in the area. ➤ Plant seedlings in the area. 	<ul style="list-style-type: none"> ➤ Don't burn the area. ➤ Don't open a new farm. ➤ Don't cut trees for any purposes. ➤ Don't graze animals freely in the area. ➤ Don't hunt wild animals.
- Medium Regenerated-Protected Forest (Ai bubur and other species)	<ul style="list-style-type: none"> ➤ Collect fallen branches and cut fallen trees for firewood. ➤ Rear animal tied to trees/sticks in the area. ➤ Plant seedlings in the area. 	<ul style="list-style-type: none"> ➤ Don't burn the area. ➤ Don't open a new farm. ➤ Don't cut trees for any purposes. ➤ Don't graze animals freely in the area. ➤ Don't hunt wild animals.
- Coffee plantation	<ul style="list-style-type: none"> ➤ Plant seedlings of coffee, cacao, and shade trees. ➤ Plant crops, e.g., taro, kontas, pepper, vanilla, etc. ➤ Prune branches of coffee and shade trees. ➤ Cut aged coffee trees. ➤ Collect fallen branches and cut fallen trees for firewood. ➤ Improve coffee plantation. 	<ul style="list-style-type: none"> ➤ Don't burn the area. ➤ Don't open a new farm. ➤ Don't rear animal in the area. (Don't graze and tie animals in the area.) ➤ Don't hunt wild animals except when wild animals cause damage to coffee.
- Plantations (Timber / Orchard / Coffee)	<ul style="list-style-type: none"> ➤ Plant seedlings including timber and fruit species. ➤ Plant crops. ➤ Prune branches of trees. ➤ Cut planted trees with permission of Chef de Suco and the owner. ➤ Collect fallen branches and cut fallen trees for firewood. 	<ul style="list-style-type: none"> ➤ Don't burn the area. ➤ Don't rear animal in the area. (Don't graze and tie animals in the area.) ➤ Don't cut planted trees without permission of Chef de Suco and the owner.
- <u>Permanent/Fixed farm</u>	<ul style="list-style-type: none"> ➤ Burn the area with firebreak lines or burn piled grasses at a part of the area. ➤ Cut grasses. ➤ Rear animals tied to sticks/trees after harvesting of crops. ➤ Plant seedlings including timber and fruit species. ➤ Plant crops. ➤ Cut planted trees with permission of Chef de Suco and the owner. 	<ul style="list-style-type: none"> ➤ Don't burn the area without firebreak lines. ➤ Don't rear animal in the area during cropping. (Don't graze and tie animals in the area during cropping.) ➤ Don't cut planted trees without permission of Chef de Suco and the owner.
- <u>Home garden</u>	<ul style="list-style-type: none"> ➤ Plant crops and vegetables. ➤ Plant seedlings including timber and fruit species. ➤ Burn piled grasses at a part of the area. 	<ul style="list-style-type: none"> ➤ Don't burn the area. ➤ Don't rear animal in the area. (Don't graze and tie animals in the area.)
- <u>Protected water sources</u>	<ul style="list-style-type: none"> ➤ Fetch and use water for domestic purposes (washing, drinking, cooking, bathing, etc.). 	<ul style="list-style-type: none"> ➤ Don't burn the area near the source (within 50-100 m from the source).

Appendix-4.4 Recommended Land Management Practices of the Land Use Categories

Future land use	Permitted Activities	Prohibited Activities
	nursery operation, watering animals and vegetables, and fish raising. ➤ Plant seedlings near the water source.	➤ Don't cut trees near the source (within 50-100 m from the source). ➤ Don't make a farm near the source (within 50-100 m from the source). ➤ Don't rear (tie/graze) animals near the source (within 50-100 m from the source). ➤ Don't plant trees that would reduce the volume of water close to the source, such as teak. ➤ Don't kill eel, snake, and wild fishes in the source. ➤ Don't contaminate or disturb the source.

Necessary Arrangements to Realize the Future Land Use

Present land use	Future land use	Necessary Arrangements
Dense Ai ru-based forest	- <u>Dense Protected Forest (Ai Ru)</u>	➤ Protect the existing forests in cooperation with MAF (NDF/Forest Guard). ➤ Reinforce the village regulations. ➤ Plant new seedlings in the area, especially after cutting trees.
Medium Ai bubur-based forest	- <u>Dense Regenerated-Protected Forest (Ai bubur and other species)</u>	➤ Protect the existing forests in cooperation with MAF (NDF/Forest Guard). ➤ Reinforce the village regulations. ➤ Plant new seedlings in the area, especially after cutting trees. ➤ Develop terraces or apply soil conservation measures.
Sparse Ai bubur-based forest	- <u>Medium Regenerated-Protected Forest (Ai bubur and other species)</u> - <u>Timber plantations</u>	➤ Protect the existing forests in cooperation with MAF (NDF/Forest Guard). ➤ Reinforce the village regulations. ➤ Plant new seedlings in the area, especially after cutting trees. ➤ Develop terraces or apply soil conservation measures.
Coffee plantation	- <u>Coffee plantation</u>	➤ Plant seedlings of coffee and shade trees. ➤ Plant seedlings of cacao and other industrial crops. ➤ Maintain coffee and shade trees.
Area for plantation	- <u>Plantations (Timber / Orchard / Coffee)</u>	➤ Maintain trees planted in the area. ➤ Develop terraces or apply soil conservation measures. ➤ Plant seedlings of timber, fruit, shade and coffee trees.
Area for shifting cultivation	- <u>Permanent/Fixed farm</u> - <u>Plantations (Timber / Orchard / Coffee)</u>	➤ Develop terraces or apply soil conservation measures (e.g., alley cropping technique) ➤ Plant seedlings of timber, fruit, shade and coffee trees.
Home garden	- <u>Home garden</u>	➤ Apply soil conservation measures if necessary.
Water sources	- <u>Protected water sources</u>	➤ Plant trees that can protect the source of water. ➤ Protect the areas around the source. ➤ Protect the catchment of the source.

Appendix-4.5

Sample of Village Regulations of the JICA Project Villages

Appendix-4.5 Sample of Village Regulations of the JICA Project Villages

VILLAGE REGULATIONS IN SUCO HAUTOHO

CHAPTER 1: GENERAL AND DEFINISION

Article 1: General

These are the village regulations of Suco Hautoho, Sub-district Remexio, Aileu District. The regulations were developed by local leaders of Suco Hautoho with mutual consensus among the communities of Suco Hautoho as a result of a series of discussions in June and July 2012.

Article 2: Definition of Terms

As used in and for purposes of these regulations, the following terms shall mean:

- 2.1 **Communities** - refers to households and their family members who reside or are registered in Suco Hautoho.
- 2.2 **Forest Guard** - refers to a/ forest officer/s on a village level. Its major roles and responsibilities are to: i) protect forests and forest products, ii) prevent forest fires, iii) enhance public awareness of functions of forest in forest-related communities, and iv) coordinate with relevant directorates in MAF to support MAF's programs.
- 2.3 **Future Land Use Plan** - refers to a plan on future land and resource use in Suco Hautoho. A future land use plan shall consist of a village map showing the future land use and guidelines on each land use in the village.
- 2.4 **Natural Resources** – refers to soil and all natural objects founded on it or below the ground in Suco Hautoho.
- 2.5 **Participatory Land Use Planning/PLUP**– refers to the process in which local communities prepare a future land use plan with village regulations/rules on land and natural resource management and get a consensus on the plan among the communities in Suco Hautoho.
- 2.6 **Tara Bandu** – refers to a traditional custom that prohibits/regulates activities or attitudes of local communities that would degrade natural resources existing in the village and adversely affect the relationship between and among the communities and livelihoods of the communities in the village.
- 2.7 **Village committee** - refers to an organization or body, which consists of the selected community members in Suco Hautoho, to implement these village regulations.
- 2.8 **Village Regulations** - refers to written rules or by-laws in Suco Hautoho that govern not only land and natural resource management but also social norms of the communities in the village.

CHAPTER 2: OBJECTIVES AND COVERAGE

Article 3: Objectives

The principle objective of these regulations is to protect, improve, and enhance welfare of the communities and natural resources in Suco Hautoho. To achieve the principle objective, these guidelines specifically aim to:

- a. Protect natural environment of Suco Hautoho through sustainable management of natural resources in the village;
- b. Enhance and maintain the solidarity of the communities and stability of society in Suco Hautoho;
- c. Improve and maintain the social order in Suco Hautoho;
- d. Maintain the traditional practices/cultures of Suco Hautoho as the identities of the village making a balance between traditional cultures and economic stability of the communities in the village;
- e. Encourage the communities in Suco Hautoho to give due respect to each other;
- f. Enable the communities in Suco Hautoho to enjoy the benefits of natural resources in a sustainable manner by protection and wise-use of natural resources in the village;
- g. Contribute to protection of the environment in the downstream basin by stabilization and enhancement of watershed functions in the village.

Article 4: Coverage

- 4.1 These regulations shall cover any cases and issues taking place and any persons in the territory of Suco Hautoho. Hence, anyone who lives and uses or accesses the natural resources including lands in the territory of Suco Hautoho must observe these regulations.
- 4.2 Communities who residing in the neighboring villages must obey these regulations. If any one from the neighboring villages violates these regulations, he or she may be fined or penalized in accordance with these regulations.

CHAPTER 3: GENERAL RULES

Article 5: Basic Rules

All the communities in Suco Hautoho must obey the laws and regulations of the Democratic Republic of Timor-Leste and these village regulations as citizens of the country as well as the village.

Article 6: Rules to Protect Social Orders of the Village

Anyone shall not disturb the social orders, unity or solidarity of the village for any reason by conducting illegal activities, such as:

- a. Any violent acts (fighting, assault, rampage, ravage/destruction of public and private properties, domestic violence, and sexual violence);
- b. Theft and robbery;
- c. Intimidation;
- d. Use of black magic;
- e. Calumny of anyone with a baseless rumor of using black magic; and
- f. Any other acts that violate the national laws and regulations.

Anyone who conducts such illegal activities shall be either turned over to the police or penalized in accordance with these regulations.

Article 7: Social Norms

All communities in the village, to maintain the unity and solidarity of the village, should conform to the social norms, such as:

- a. to respect each other;
- b. to take good care of child;
- c. to pay due respect to church;
- d. to fulfill the obligations for the family;
- e. to be responsible for any actions of children in the village;
- f. not to use curse and dirty words to others, especially children;
- g. not to have any affairs with someone else's husband and wife;
- h. not to tease or harass anyone, especially women;
- i. not to do any immorality with the young and children;
- j. not to make anyone feel unpleasant; and

Article 8: Cultural Ceremonies

A group of families or Lisan that intends to hold Kora Metan or any other cultural ceremonies in Suco Hautoho shall seek permission from suco leaders to organize a ceremony at the start of the New Year. Suco leaders shall check the necessity of the ceremony and the economic conditions of families belonging to such a group or lisan. Only if suco leaders judge that the group of families can afford to hold the ceremony, the group can get permission from the leaders to hold Kora Metan.

Article 9: Disputes/Conflict in the Village

Any disputes or conflicts taking place in Suco Hautoho must be dealt with in accordance with the procedures specified in Chapter 9 "Implementation System of the Village Regulations" of these regulations.

CHAPTER 4: FUTURE LAND USE IN THE VILLAGE

Article 10: Basic Principle

The area of Suco Hautoho shall be used and managed in a proper and sustainable manner. All communities in Suco Hautoho and/or anyone who uses the area in the territory of Suco Hautoho shall make effort to realize the proposed future land use map attached here to (See Attachment-1).

Article 11: Future Land Use in the Village

The present land use in Suco Hautoho shall be amended as specified in the following table to enable the communities to achieve the sustainable management of natural resources in the village while improving/maintaining their livelihoods.

Appendix-4.5 Sample of Village Regulations (Suco Hautoho)

Present land use	Future land use	General guidelines on use
Dense Ai Bubur Forest	<u>- Dense Protected Forest (Ai Bubur and other species)</u>	The area shall be: ➤ protected from illegal cutting (e.g., cutting for sale and cutting without permission), burning, conversion into farm, and any other destructive activities to protect the sources of water and prevent soil erosion; ➤ used for collection of firewood and materials for making houses/fences; ➤ used for rearing animals by putting them in a pen/fenced area or tying them to trees in the area; and ➤ improved by planting seedlings, especially after cutting.
Dense Ai Ru Forest	<u>- Dense Protected Forest (Ai Ru)</u>	The area shall be: ➤ protected from illegal cutting (e.g., cutting for sale and cutting without permission), burning, conversion into farm, and any other destructive activities to protect the sources of water and prevent soil erosion; ➤ used for collection of firewood and materials for making houses; ➤ used for rearing animals by putting them in a pen/fenced area or tying them to trees in the area; and ➤ improved by planting seedlings, especially after cutting.
Medium Ai Bubur Forest	<u>- Dense/Medium Protected Forest (Ai Bubur and other species)</u>	The area shall be: ➤ protected from illegal cutting (e.g., cutting for sale and cutting without permission), burning, conversion into farm, and any other destructive activities to protect the sources of water and prevent soil erosion; ➤ used for collection of firewood and materials for making houses/fences; ➤ used for rearing animals by putting them in a pen/fenced area or tying them to trees in the area; and ➤ rehabilitated by planting seedlings.
Sparse Ai Bubur Forest	<u>- Medium Rehabilitated Forest (Ai Bubur and other species)</u> <u>- Plantations (Coffee / Timber trees /Orchards)</u>	The area shall be: ➤ protected from cutting, burning, conversion into farm, and any other destructive activities to protect the sources of water and prevent soil erosion; ➤ used for collection of firewood; ➤ used for rearing animals being put in a pen/fenced area or tied to trees in the area; ➤ rehabilitated by planting seedlings; and ➤ used for production purposes by planting leguminous/fodder trees, timber trees, and fruit trees.
Coffee Plantation	<u>- Coffee Plantation</u>	The area shall be: ➤ protected from cutting, burning, conversion into farm, and any other destructive activities to protect the sources of water and prevent soil erosion; ➤ used to produce coffee; ➤ used for collection of firewood; and ➤ Used for production of fruits (e.g., jackfruit, mango and avocado) at the edge of the farm and/or shade tolerant crops (e.g., taro, ginger and chili).
Area for shifting cultivation	<u>- Permanent farm</u> <u>- Plantations (Coffee / Timber trees /Orchards)</u>	The area shall be: ➤ used for production of food crops in a permanent and sustainable manner; ➤ used as plantations (e.g., coffee, fruits and timber trees) by planting seedlings; ➤ used for rearing animals by tying them to trees/sticks; and ➤ used for collection of firewood.

Present land use	Future land use	General guidelines on use
Permanent farm	<ul style="list-style-type: none"> - <u>Permanent farm</u> - <u>Farm mixed with fruit trees / Agroforestry farm</u> 	<p>The area shall be:</p> <ul style="list-style-type: none"> ➤ used for production of food crops in a permanent and sustainable manner; ➤ used for production of some fruits in the nearby area by planting fruit seedlings; and ➤ used for collection of firewood.
Water sources	<ul style="list-style-type: none"> - <u>Protected Water Sources</u> 	<p>The water source shall be:</p> <ul style="list-style-type: none"> ➤ protected from any activities that would cause the destruction of the sources; ➤ used for domestic purposes as well as production purposes; and ➤ improved by planting seedlings in the nearby areas.

Article 12: Recommended Land Management Practices

All communities in Suco Hautoho shall use and manage the forests and lands in the village in a proper and sustainable manner in compliance with the recommended management practices in specified in Attachment-2.

Article 13: Necessary Arrangements

In order for the communities in Suco Hautoho to realize the future land use map shown in Attachment-1, the village leaders shall coordinate relevant organizations, such as NDF, MAF District Office in Aileu, and any other external organizations, to have necessary support and arrangements specified in Attachment-3.

Article 14: Permission Process

Anyone who intends to cut a tree for building a house in the forests where the cutting of trees is allowed shall obtain permission from the owner of the land first, and get the same from the village leaders in the order of the proximity to the area, namely Chef de Aldeia where the forest is located next and Chef de Suco at the last.

CHAPTER 5: RULES ON USE AND MANAGEMENT OF NATURAL RESOURCES

Article 15: Prohibited Activities

Any activities that would cause degradation and disordered exploitation of the natural resources within the territory of Suco Hautoho are prohibited and subject to penalty by the regulations. The activities categorized as illegal acts shall include, but are not limited to, the following:

- a. Cut naturally growing trees, such as Ai Ru and Ai Bubur, for sale;
- b. Cut naturally growing trees, such as Ai Ru and Ai Bubur, for domestic purposes (which must be less than 3 m³¹) without permission of an owner of the land or Suco leaders, namely, Chef de Aldeia and Chef de Suco;
- c. Cut planted trees, such as Ai Kakeu, without permission of an owner of the land or Suco leaders, namely, Chef de Aldeia and Chef de Suco;

¹ Anyone must obtain permission from NDF/MAF whenever cutting more than 3 m³ trees.

- d. Cut any trees with a chain saw without a license issued by NDF/MAF;
- e. Burn any areas except those used as permanent farms;
- f. Burn any farms without firebreak lines or notice to owners of the neighboring farms
- g. Open any forests for farming;
- h. Enter somebody else's farm without the permission of an owner of the farm;
- i. Graze large animals or ruminant animals freely in the village except the areas assigned as grazing areas in the future land use map;
- j. Rear animals tied to trees/sticks in someone else's farm without permission of an owner of the farm;
- k. Hunt or kill a wild animal except when farm crops are damaged by such a wild animal;
- l. Conduct any activities that would adversely affect the sources of water, such as cutting trees, cultivate a farm, burn the area, graze animals, washing, and taking a bath around the sources;
- m. Catch and kill eels and snakes at the sources of water;
- n. Use chemical and electrical devices to catch fishes in the rivers/streams;
- o. Harvest fruits and any farm products in somebody else's land/farm without permission of an owner of the farm;
- p. Cut bamboo in somebody else's land/farm without permission of an owner of the farm/land;
- q. Collect tua in somebody else's land/farm without permission of an owner of the farm/land; and
- r. Kill animals owned by somebody except the case specified in Sub-Article 18.3.

CHAPTER 6: RULES ON MANAGEMENT OF LIVESTOCK ANIMALS

Article 16: Basic Principle

Anyone who own animals shall strictly control his/her animals and protect them from causing damage to farm products in someone else's farms. Large animals or ruminant animals shall be tied to trees or grazed in the assigned grazing areas, while small animals shall be put in a pen or tied to trees/sticks.

Article 17: Rules on Rearing/Raising Livestock Animals in the Village

Anyone who rears/raises livestock animals shall be responsible for his/her animals and manage them in accordance with the following rules:

- a. Graze animals only in the grazing area designated in the future land use map in Attachment-1;
- b. Graze animals only in the daytime and put them into a/ cattle pen/s or fenced-in lot/s;
- c. Assign a/ cow keeper/s to control the movement of large animals when grazing animals in the designated areas in the daytime; and
- d. Tie animals to trees/sticks whenever rearing/raising animals in other areas than the designated areas.

Article 18: Settlement of Damage caused by Animal

- 18.1 In case that any livestock animal enters somebody else's farm and damages crops/coffee/any other agricultural and forestry products, an owner of such an animal shall be obligated to compensate an owner of the farm for the damage and be subject to penalty in accordance with these regulations.
- 18.2 When an owner of a farm finds a livestock animal, which is not owned by him/her, damaging crops/coffee /any other agricultural and forestry products in his/her farm, the owner of the farm shall catch and tie the animal to a tree and report the case to Chef de Aldeia and an owner of the animal. Chef de Aldeia shall handle the issue/case in accordance with Article 24 in these regulations.
- 18.3 Anyone whose animal/s causes damage to crops/coffee/any agricultural and forestry products in somebody's else's farms more than three times shall accept the consequence that his/her animal/s may not be captured but be killed by an owner of a farm after the third cases.
- 18.4 Any community who owns a/ livestock animal/s shall make a mark on its own animal/s.

CHAPTER 7: INSTITUTIONAL FRAMEWORK FOR IMPLEMENTATION

Article 19: Village Committee for Implementation of the Village Regulations

- 19.1 A village committee, which consists of the members of the village council, representatives of church, and elder of the village, shall be organized to implement the village regulations.
- 19.2 The organizational structure of the village committee is set as below.

Committee members	Person responsible
Leader of Committee	Chef de Suco
Co-leader of committee	Anciao (Elder)
Secretary/Treasurer	Secretary of Suco
Members	Chefs de Aldeia (3 persons)
	Lia Nain of Suco
	Representatives of Youth (Male and Female)
	Representatives of women's group (2 persons)
	Lia Nain of Aldeia (3 persons)
	Representative of Church (2 persons)

- 19.3 The committee members shall be renewed when the council of suco is changed. If the communities judge that the composition of the committee needs to be reorganized under the consensus of all the communities, the committee members shall be selected in a democratic way and leaders of the committee, such as the leader of the committee and co-leader of the committee, shall also be selected among the committee members in a democratic way, such as voting.

Article 20: Mandates of the Village Committee

- 20.1: The mandates of the village committee for implementation of the village regulations in Suco Hautoho are to:

- a. be responsible for formulation, implementation, and enforcement of the village regulations and future land use plan of Suco Hautoho;
- b. encourage all the communities in Suco Hautoho to obey the village regulations and manage land and other natural resources in the village in a proper and sustainable manner;
- c. disseminate the village regulations and future land plan to the communities in the village;
- d. solve and settle any issues and problems in the village and give necessary guidance to the communities;
- e. monitor and evaluate the process, effectiveness, and impact of the implementation of the village regulations;
- f. coordinate the relevant government offices, namely, District Administrative Office in Aileu, Sub-district Administrative Office in Remexio, National Directorate for Forestry, National Police in Timor-Leste, and MAF District Office in Aileu;
- g. review, revise and update the village regulations and future land use plan when necessary; and
- h. use the fines collected through the implementation and enforcement of the village regulations for the achievement of the future land use plan and /or social welfare of the communities in the village in a proper and transparent manner.

20.2 In case any member of the committee can not assume his/her responsibility or lose villagers' confidence due to his/her behavior, the committee shall select a new representative to replace this person and gain approval for the replacement from the communities.

Article 21: Roles and Responsibilities of the Committee Members

21.1 The roles and responsibilities of the committee members are as follows:

Members	Roles and Responsibilities
Leader of Committee (Chef de Suco)	<ul style="list-style-type: none"> • Lead the village committee and chair the discussions in the meeting; • Coordinate with Chef de Aldeia and Lia Nain of the village to solve any issues brought to suco; • Organize a committee meeting to discuss any issues/cases brought to suco; • Be responsible for implementation of the village regulations and future land use plan of the village; • Take overall responsibility for management and use of the cash/fund of the committee; • Coordinate the relevant government offices (e.g., District Administrative Office, Sub-district Administrative Office, and MAF) and other external organizations to implement the village regulations and future land use plans of the villages; • Lead the village committee to monitor and evaluate the implementation of the village regulations and future land use plan of the village in coordination with other members of the committee; and • Lead the village committee to review and revise the village regulations and future land use plan of the village in coordination with other members of the committee.
Co-leader of committee (Anciao)	<ul style="list-style-type: none"> • Help the leader of the committee fulfill his/her roles and responsibilities; • Act as the leader when the leader of the committee is absent; • Attend discussions and meetings at suco level and provide suggestions to the committee; • Solve any issues brought to suco in coordination with the leader of the committee and Lia Nain of Suco; and • Assist the leader in the implementation of the village regulations.

Appendix-4.5 Sample of Village Regulations (Suco Hautoho)

Members	Roles and Responsibilities
Secretary and Treasurer (Secretary of Suco)	<ul style="list-style-type: none"> • Perform as a moderator in the meeting; • Coordinate the leader and other members of the committee when any activities of the committee, such as meetings, are organized; • Manage and file any documents of the committee; • Keep books of account and manage the cash/fund of the committee; • Report the financial status to the leader as well as other members of the committee; and • Take note the discussions, especially judgment made by the committee, in the meeting to accumulate judicial precedents.
Chef de Aldeia	<ul style="list-style-type: none"> • Attend meetings and discussions at suco level on the behalf of the communities in aldeia; • Solve any issues taking place in his/her aldeia in coordination with Lia Nain of Aldeia; • Report the results of deliberation/mediation meetings organized at aldeia level in the monthly monitoring meeting; • Consult with the leader of the committee about any issues/cases which can not be solved/settled at aldeia level; • Attend the deliberation/mediation meetings organized by the leader of the committee at suco level to discuss the issues/cases which can not be solved at his/her aldeia; • Be responsible for implementation of the village regulations at aldeia level; and • Assist the leader in the implementation of the village regulations.
Lia Nain of Suco	<ul style="list-style-type: none"> • Attend discussions and meetings at suco level and provide necessary suggestions in the meeting; • Solve any issues brought to suco in coordination with the leader and co-leader of the committee and chef de aldeia as well as Lia Nain of the aldeia concerned with the issues; • Coordinate other traditional leaders of the neighboring villages; and • Assist the leader of the committee in the implementation of the village regulations.
Representatives of Youth Group	<ul style="list-style-type: none"> • Attend discussions and meetings at suco level and provide suggestions on behalf of the youth in the village; • Speak for the youth in the village; • Coordinate other youth groups of the neighboring villages; and • Assist the leader in the implementation of the village regulations.
Representatives of Women's Group	<ul style="list-style-type: none"> • Attend discussions and meetings and provide suggestions on behalf of women in the village; • Speak for women in the village; • Coordinate other women's groups of the neighboring villages; • Appoint women to prepare consumption for the meeting when required; and • Assist the leader in the implementation of the village regulations.
Lia Nain of Aldeia	<ul style="list-style-type: none"> • Attend discussions and meetings at suco level and provide suggestions to the committee; • Assist Chef de Aldeia in his aldeia in solving any issues taking place in his aldeia; • Coordinate Lia Nain of Suco when any case in his aldeia is brought to Suco; and • Assist the leader in the implementation of the village regulations.
Representatives of Church	<ul style="list-style-type: none"> • Attend discussions and meetings at suco level and provide suggestions related to the Christian faith; • Give opening/closing prayers before starting and closing discussions; and • Assist the leader in the implementation of the village regulations.

21.2 In case the leader and co-leader of the committee are absent or can not assume their responsibilities by any reasons, other committee members can select a transient representative among the remaining committee members as a provisional means. The person in-charge shall take over the tasks and responsibilities associated with the leader.

Article 22: Roles and Responsibilities of Other Communities

The roles and responsibilities of other communities in Suco Hautoho are as follows:

- a. to obey the rules and follow the guidelines described in these regulations;

- b. to attend the plenary meeting organized by the committee at either suco or aldeia level;
- c. to participate in the village activities to support the implementation of the village regulations and future land use plan of the village;
- d. to have the right to file a complaint against any violator with the village committee or the local leaders (such as Chef de Suco); and
- e. to have the right to monitor the activities of the village committee whether the committee members perform their roles and responsibilities.

CHAPTER 8: IMPLEMENTATION SYSTEM OF THE REGULATIONS

Article 23: Basic Principle

- 23.1 These regulations shall be implemented as village by-laws/rules in Suco Hautoho. All communities of the village shall monitor and keep careful watch on any violations or illegal activities against these regulations.
- 23.2 Any criminal act taking place within the territory of Suco Hautoho shall be reported to the police. Hence, anyone who commits any crime or violate the law of the Government of Timor Leste may be turned over to the police.

Article 24: Procedures for Problem Solving and Mediation of Disputes/Conflicts

- 24.1 Any complaint or violation must be first filed to Chef de Aldeia in the area where a person making a complaint (the complainant) resides. Chef de Aldeia shall hold a deliberation or mediating meeting with the litigants (i.e., the complainant/victim and the defendant/suspect) and Lia Nain of Aldeia.
- 24.2 In the deliberation/mediation meeting, Chef de Aldeia with other members of the committee verifies the fact through investigation and discussions with the litigants. A case shall be reported to Chef de Suco when the deliberation/mediation meeting reaches agreement.
- 24.3 If a case can not be settled at Aldeia level, it will be brought to suco level. Chef de Suco shall hold a deliberation/mediating meeting with the litigants, Chef de Aldeia and Lia Nain of the aldeia where the case takes place, Lia Nain of Suco, and any other person that the leader of the committee considers necessary.
- 24.4 In the deliberation/meeting at Suco level, Chef de Suco with the other participants specified in Sub-Article 24.3 investigates and examines the case calling for presentments by litigants in the deliberation/mediating meeting.
- 24.5 In case no settlement is made, a case will be brought to the Sub-district Administrative Office or reported to the police in Sub-district Remexio.

Article 25: Costs/Expenses for Deliberations/Mediating Meetings

- 25.1 The litigants shall defray the expenses of deliberations/mediating meetings for settlement/mediation at both aldeia and suco levels. The expenses should be refunded to

the complaint by the defendant if the deliberation/mediation meeting judges that the defendant bears the responsibility of the case.

CHAPTER 9: MONITORING OF IMPLEMENTATION AND INFORMATION DISSEMINATION TO COMMUNITIES

Article 26: Monitoring of Implementation of the Village Regulations by the Committee

- 26.1 The village committee shall hold a monitoring meeting every month to monitor the implementation of the village regulations and help Chef de Aldeia settle any issues which can not be solved at the deliberation/mediating meeting at aldeia level.
- 26.2 In the monthly monitoring meeting, Chef de Aldeia will report all the issues taking place in his/her aldeia and the results of the deliberations/mediation meetings organized in a month. In case there are any pending issues, they shall bring up such issues for discussion. The committee members shall give advice to Chef de Aldeia on how to treat and solve the issues.
- 26.3 The village committee shall also have an ad hoc meeting whenever there is a need to discuss any urgent issues among the members.
- 26.4 All the discussions in the monthly monitoring meeting at suco level shall be recorded by the secretary of the committee or another member assigned by the leader in the beginning of the meeting. The records of the discussions, especially records of judicial precedents, shall be used for supplements of the regulations.

Article 27: Information Dissemination of the Village Regulations to Local Communities

In order to familiarize the communities in the village with the village regulations, Chef de Aldeia shall hold a meeting with the communities at aldeia level on a bi-monthly basis to share the results of the discussions in the monthly monitoring meeting of the committee and to facilitate the communities' understanding of the village regulations.

Article 28: Annual Evaluation at Suco Level

A plenary meeting with local communities of the village shall be held by the village committee every year to i) share the cases and issues that the committee has dealt with in a year; ii) evaluate the effectiveness of the village regulations as well as the performance of the committee, and iii) enhance the communities' awareness of the village regulations and future land use plan of the village.

CHAPTER 10: FINANCIAL MANAGEMENT (INCOME AND EXPENDITURE)

Article 29: Income of the Committee

The village committee may have the following income through the implementation of the village regulations:

- a. fines paid by violators; and
- b. contributions given by external organizations/sources for resource management.

Article 30: Expenditure of the Committee

The income/funds of the village committee shall be used only for implementation of the village regulations and future land use plan, such as i) reforestation in sparse forests, ii) rehabilitation of eroded gullies, iii) consumables used in the monthly monitoring meetings of the committee; iv) consumables used in the bi-monthly meetings at aldeia level; v) organization of a Tara Bandu ceremony; and vi) any other activities to contribute to the implementation of the village regulations and future land use plan.

Article 31: Financial Management

- 31.1 The village committee shall properly manage and keep the income/funds of the village committee. The leader of the committee shall take overall responsibility for management of the funds and the secretary/treasurer of the committee shall keep books of account in a proper and transparent manner.
- 31.2 Any use of the budget shall be discussed in the committee with the participation of two-third of the members and approved by more than half of the members who participate in the meeting/discussion.
- 31.3 The leader or co-leader of the committee with the assistance of the secretary/treasurer shall report the income and expenditure of the committee to the other members in the monitoring meeting every month.
- 31.4 The village committee shall also report the income and expenditure to other communities in the annual evaluation meeting specified in Article 28.

CHAPTER 11: FINE AND PENALTY

Article 32: Penalties and Fines

Any person who violates against the rules described in Chapters 3 and 6 of these regulations shall be penalized with fines. The extent of the penalty shall vary with the category and/or level of violation as shown below.

1) Violations categorized as Crimes

Level of Crime	Type of crime	Penalty imposed on the violator
1. Very Serious /Heavy Crime	<ul style="list-style-type: none"> Any sexual violence and assault 	<ul style="list-style-type: none"> Compensation to the victim/victim's family <ul style="list-style-type: none"> US\$ 100 Two (2) heads of cow or buffalo Two (2) heads of pig Two (2) pcs of Tais Fine <ul style="list-style-type: none"> US\$ 50 when the issue is solved in aldeia Level US\$ 100 when the issue is solve at Suco level Materials for a mediating ceremony (so-called "Nahe biti and lulun biti"). <ul style="list-style-type: none"> Meat, Rice, Cigarette, Tua, and Betal nut In case the violator or his family/relatives can not comply with the penalty described above, the violator shall be handed over to the police.

Appendix-4.5 Sample of Village Regulations (Suco Hautoho)

Level of Crime	Type of crime	Penalty imposed on the violator
2. Serious (or Heavy) crime	<ul style="list-style-type: none"> Any violent activities (e.g., fighting, rampage, ravage/destruction of public and private properties, and domestic violence) Robbery and thefts Intimidation Stealing of large animals (i.e., cow/cattle, buffalo, horse, goat, and pig) and/or large amount of farm products Arson and any activities that cause a wild fire Illegal cutting tree Use of chemical materials to catch fishes in the source of water Use of black magic Calumny of any person with a baseless rumor Any other crimes or illegal activities that are categorized as serious crime. 	<ul style="list-style-type: none"> Compensation to the victim/s <ul style="list-style-type: none"> Payment equivalent to the damage in cash or in kind Fine: <ul style="list-style-type: none"> US\$ 50 when the issue is solved at aldeia level US\$ 100 when the issue is solved at suco level Materials for mediating ceremony (so-called “Nahe biti and lulun biti”). <ul style="list-style-type: none"> Meat, Rice, Cigarette, Tua, and Betal nut In case the violator or his/her family/relatives can not comply with the penalty described above, he or she must be handed over to the police.
3. Misdemeanor (or light crime)	<ul style="list-style-type: none"> Stealing of small amount of farm products and small animals (e.g., chicken, cat and dog) Any activities that cause damage to crops and plantation (e.g., fruits, coffee, clove, pepper, etc.) Hunt wild animals in forests Any crimes or illegal activities that are not categorized as serious crime 	<ul style="list-style-type: none"> Compensation to the victim/s <ul style="list-style-type: none"> Payment equivalent to the damage in cash or in kind Fine: <ul style="list-style-type: none"> US\$ 25 when the issue is solved at aldeia level US\$ 50 when the issue is solved at suco level Materials for mediating ceremony (so-called “Nahe biti and lulun biti”). <ul style="list-style-type: none"> Meat, Rice, Cigarette, Tua, and Betal nut In case the violator can not comply with the fines described above, he or she shall be forced to engage in social works. If the same person commits any of misdemeanors more than three times, such a person (or the four-time violator) may be handed over to the police or given heavier infliction by the committee.

2) Violations categorized as Immorality/Unfaithfulness

Level of Act	Type of crime	Penalty imposed on the violator
1. Serious /Heavy Act	<ul style="list-style-type: none"> Extra-marital affairs and any immoral /unfaithful affairs 	<ul style="list-style-type: none"> Compensations given by the female’s family to the male’s family. <ul style="list-style-type: none"> US\$ 100 Two (2) heads of cow/buffalo Compensations given by the male’s family to the female’s family. <ul style="list-style-type: none"> Two (2) heads of pigs Two (2) pieces of tais Fine by both parties <ul style="list-style-type: none"> US\$ 50 when the issue is solved in aldeia Level US\$ 100 when the issue is solve at Suco level Materials for a mediating ceremony (so-called “Nahe biti and lulun biti”). <ul style="list-style-type: none"> Meat, Rice, Cigarette, Tua, and Betal nut Any cases shall be solved between the related families with the assistance from the committee members, especially Chef de Aldeia, Chef de Suco and Representatives of Church.

CHAPTER 12: FINAL PROVISION AND EFFECTIVENESS

Article 33: Revision and Amendment

- 33.1 These village regulations can be revised and amended whenever the need arises in accordance with any changes of the circumstances around the village, socio-economic conditions of local communities, and relevant legislative systems in the government.
- 33.2 The village committee shall hold meetings among the members whenever revising and amending these regulations. The amendment and revision of these village regulations shall be approved by a majority of local communities who participate in a plenary meeting organized by the committee.

Article 34: Effectiveness

- 34.1 These regulations are effective from the date signatures and announcement made by the leaders of Suco Hautoho.

Announced and disseminated at Suco Hautoho on 17 August, 2012 by

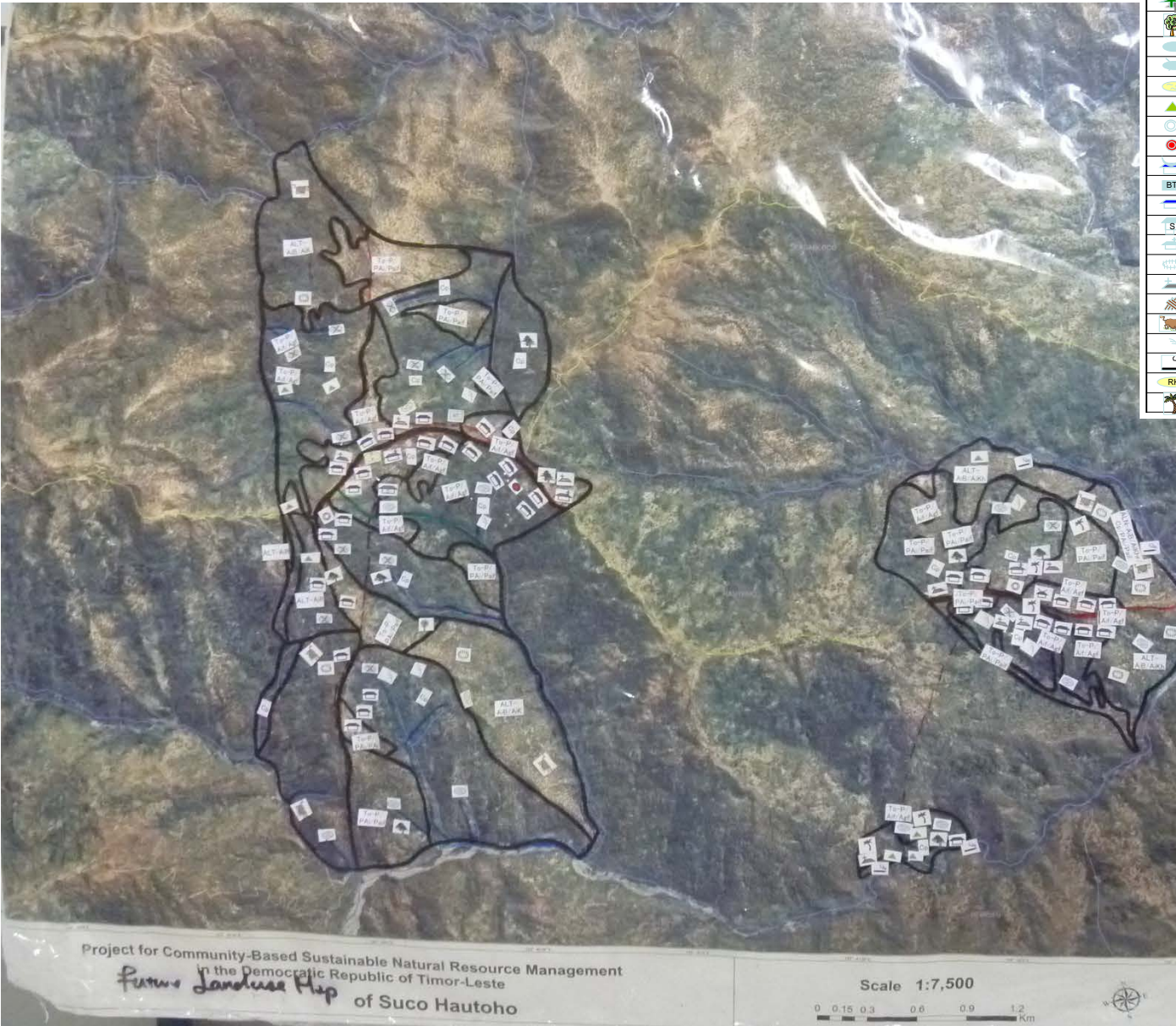
Joao da Silva Leader of the Committee Chef de Suco of Suco Hautoho	Domingos Alves Co-Leader of the Committee Ancion of Suco Hautoho	Jose de Jesus Secretary/Treasurer Secretary of Suco of Suco Hautoho
Vasco Amaral Chef de Aldeia of Aldeia Aibutihun, Suco Hautoho	Bonifasio do Carmo Chef de Aldeia of Aldeia Lebutu, Suco Hautoho	Manuel dos Santos Chef de Aldeia of Aldeia Ramerhei, Suco Hautoho

Approved and Endorsed on 17 August, 2012 by

Lourenco Borgas Fontes National Director of National Directorate of Forestry, MAF	Martinho Matos Siquiera District Administrator of Aileu District	Carlos Alberto de Araujo Sub-district Administrator of Remexio Sub-district, Aileu District
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Joao Antalmo
Director of Department of
Protection and Forest
Management, NDF,
MAP

Fernando C. Araujo
Project Manager of the
Project for Community-
Based Natural Resource
Management, MAF



Landmark	Tetun	English
	Hali iulic	Sacred Tree
	Ai Bubur Lulic	Sacred Eucalyptus Alba
	Be Matan	Water source
	Be Matan Lulic	Sacred (Lulic) water source
	Debu	Pond
	Foho Lulic	Sacred mountain
	Centro Aldeia	Aldeia center
	Centro Suco	Suco Center
	Uma Lulic	Sacred House
	Be Tanki	Water Tank
	Uma Komunidade	Community House
	Escola	School
	Capela	Church
	Karau Luhan	Animal fence
	Cemiterio/Rate	Cemetery
	Fatin Hili Ai Sunu	Firewood collection
	Fatin Fusik Animal	Grazing place
	Tua	Palm trees
	Area Sunu Rai	Area with frequent wild fires
	Rai komunal	Community area
	Nu	Coconuts

Landmark	Tetun	English
	Hali iulic	Sacred Tree
	Ai Bubur Lulic	Sacred Eucalyptus Alba
	Be Matan	Water source
	Be Matan Lulic	Sacred (Lulic) water source
	Debu	Pond
	Foho Lulic	Sacred mountain

Legend

Usa-Rai ba Futuru/ Future Land Use	Descripsaun	Usa-Rai Agora/ Present Land Use	Descripsaun
ALT-AiB/AiKhr	Ai lalan Tuan-Ai bubur/Ai Kahur	ALT-AiB	Ai lalan Tuan-Ai bubur
		ALN-AiB	Ai lalan Naton-Ai bubur
ALN-AiB/AiKhr/Cp/PAU/PAI	Ai lalan Naton-Ai bubur/Ai Kahur/Café/Plantasaun Ai fuan	ALI-AiB	Ai lalan Ituan-Ai bubur
ALT-AiR	Ai lalan Tuan-Ai Ru	ALT-AiR	Ai lalan Tuan-Ai Ru
Cp	Café	Cp	Café
To-P/PAU/PAI	Toos Permanente/Plantasaun Ai/Plantasaun Ai fuan	To-Mb	Toos-Muda Ba Mai
To-P/Ai/Agf	Toos Permanente/Plantasaun Ai/Agrofloresta	Uc-Tp	Uma Comunidade ho Toos Permanente
		RM	Rai Monu

Appendix-4.5 Attachment 1 Future Land Use Map of Suco Hautoho

Attachment-2: Recommended Land Management Practices of the Land Use Categories

Future land use	Permitted Activities	Prohibited Activities
- Dense Protected Forest (Ai Bubur-based Forest)	<ul style="list-style-type: none"> ➤ Cut Ai Bubur for making a house with permission of suco leaders (Chef de Aldeia and Chef de Suco) and an owner of the land or a head of lisan that owns the land. ➤ Cut a certain volume of Ai Bubur for making fences with ith permission of suco leaders (Chef de Aldeia and Chef de Suco) and an owner of the land or a head of lisan that owns the land.in the presence of NDF/MAF (There is a need to get permission from NDF/MAF when cutting trees more than 3 m3 or a large tree with a chain saw.) ➤ Plant new seedlings after cutting. ➤ Prune branches of trees. ➤ Collect firewood. ➤ Rear animals in a pen/fenced area or by tying them to trees/sticks. 	<ul style="list-style-type: none"> ➤ Don't burn the area. ➤ Don't open the area for farming. ➤ Don't cut trees for selling. ➤ Don't cut trees without permission of suco leaders or an owner of the land. ➤ Don't graze an/ animal/s freely. ➤ Don't hunt wild animals.
- Dense/Medium Protected Forest (Ai Bubur-based Forest)	<ul style="list-style-type: none"> ➤ Cut Ai Bubur for making a house with permission of suco leaders (Chef de Aldeia and Chef de Suco) and an owner of the land or a head of lisan that owns the land. ➤ Cut a certain volume of Ai Bubur for making fences with ith permission of suco leaders(Chef de Aldeia and Chef de Suco) and an owner of the land or a head of lisan that owns the land.in the presence of NDF/MAF (There is a need to get permission from NDF/MAF when cutting trees more than 3 m3 or a large tree with a chain saw.) ➤ Plant new seedlings after cutting. ➤ Prune branches of trees. ➤ Collect firewood. ➤ Rear animals in a pen/fenced area or by tying them to trees/sticks. 	<ul style="list-style-type: none"> ➤ Don't burn the area. ➤ Don't open the area for farming. ➤ Don't cut trees for selling. ➤ Don't cut trees without permission of suco leaders or an owner of the land. ➤ Don't graze an/ animal/s freely. ➤ Don't hunt wild animals.
- Dense Protected Forest (Ai Ru-based Forest)	<ul style="list-style-type: none"> ➤ Cut Ai Bubur for making a house with permission of suco leaders (Chef de Aldeia and Chef de Suco) and an owner of the land or a head of lisan that owns the land. ➤ Plant new seedlings (timber and leguminous species) after cutting. ➤ Prune branches of trees. ➤ Collect firewood. ➤ Rear animals in a pen/fenced area or by tying them to trees/sticks. 	<ul style="list-style-type: none"> ➤ Don't burn the area. ➤ Don't open the area for farming. ➤ Don't cut trees for selling. ➤ Don't cut trees without permission of suco leaders or an owner of the land. ➤ Don't graze an/ animal/s freely. ➤ Don't hunt wild animals.
- Medium Rehabilitated/Protec ted Forest (Ai Bubur-based/Mix Forest)	<ul style="list-style-type: none"> ➤ Plant new seedlings that animals do not eat. ➤ Plant fodder grasses and trees. ➤ Rear animals in a pen/fenced area or by tying them to trees/sticks. ➤ Collect firewood. 	<ul style="list-style-type: none"> ➤ Don't cut trees for any purposes. ➤ Don't burn the area. ➤ Don't open the area for farming. ➤ Don't graze an/ animal/s freely.
- <u>Coffee Plantation</u>	<ul style="list-style-type: none"> ➤ Plant seedlings of shade trees (Ai Kakeu, Ai Samutuku, etc.) and coffee trees. ➤ Plant seedlings of mango, jackfruit, orange, and candlenut at the edge of the plantation. ➤ Plant shade tolerant crops (e.g., taro and ginger). ➤ Prune branches of coffee and shade trees. ➤ Cut aged coffee trees for rejuvenation. ➤ Collect firewood. ➤ Harvest coffee, fruits, and crops planted. ➤ Weed/Clear the area. 	<ul style="list-style-type: none"> ➤ Don't cut trees except aged coffee trees. ➤ Don't burn the area. ➤ Don't open the area for farming. ➤ Don't rear an animal/s in the area.

Appenx-4.5 Sample of Village Regulations (Suco Hautoho)

Future land use	Permitted Activities	Prohibited Activities
<u>- Plantations</u> <u>(Timber / Fruit</u> <u>Plantations)</u>	<ul style="list-style-type: none"> ➤ Plant seedlings of timber/fruit/leguminous trees. ➤ Cut planted trees for domestic purposes with permission of an owner of the land. ➤ Collect firewood. ➤ Plant annual crops until the canopy of planted trees develop until they cover the area. ➤ Harvest planted fruits and crops. 	<ul style="list-style-type: none"> ➤ Don't cut naturally growing trees for any purposes. ➤ Don't cut planted trees without permission from an owner of the land. ➤ Don't burn the area. ➤ Don't rear an animal/s in the area. ➤ Don't plant seedlings/perennial crops without permission from an owner of the land.
<u>- Permanent farm</u> <u>(Conversion from</u> <u>the area for shifting</u> <u>cultivation)</u>	<ul style="list-style-type: none"> ➤ Plant annual and perennial crops. ➤ Construct a small temporary house. ➤ Burn the area with firebreak lines. ➤ Burn a pile of grasses cut/mown in a part of the farm. ➤ Rear animals in the area by tying them to trees/sticks. ➤ Harvest annual and perennial crops. ➤ Plant seedlings of timber, coffee, fruit, and fodder trees. ➤ Cut planted trees for domestic purposes with permission of an owner of the land. ➤ Collect firewood. ➤ Use the area for production of annual crops with permission of an owner of the land. 	<ul style="list-style-type: none"> ➤ Don't cut naturally growing trees for any purposes. ➤ Don't cut planted trees without permission from an owner of the land. ➤ Don't graze animals in the area ➤ Don't burn the area without firebreak lines ➤ Don't plant seedlings/perennial crops without permission from an owner of the land.
<u>- Permanent farm</u>	<ul style="list-style-type: none"> ➤ Plant annual and perennial crops. ➤ Burn a pile of grasses cut/mown in a part of the farm. ➤ Rear animals in the area by tying them to trees/sticks. ➤ Harvest annual and perennial crops. ➤ Plant seedlings of timber, coffee, fruit, and fodder trees. ➤ Cut planted trees for domestic purposes with permission of an owner of the land. ➤ Collect firewood. 	<ul style="list-style-type: none"> ➤ Don't cut naturally growing trees for any purposes. ➤ Don't cut planted trees without permission from an owner of the land. ➤ Don't rear animals in the area. ➤ Don't burn the area. ➤ Don't plant seedlings/perennial crops without permission from an owner of the land.
<u>- Protected Water</u> <u>Sources</u>	<ul style="list-style-type: none"> ➤ Use the source for domestic purposes, nursery operations, watering animals, and vegetable productin. ➤ Plant seedlings of trees that would not affect the volume of water in the source (e.g., Ai Hari, Ai Eda, etc.) . ➤ Clean an weed the area near the source. ➤ Protect snake and eel in the source ➤ Make a nursery of vegetables 10 m downward from the source. ➤ Collect firewood. 	<ul style="list-style-type: none"> ➤ Don't cut trees near the source (within 100 m upward from the source). ➤ Don't burn the area near the source (within 100 m upward from the source). ➤ Don't open a new farm near the source (within 100 m upward from the source). ➤ Don't kill any fishes (e.g., eel and prawn) in the source. ➤ Don't kill any animals near the source. ➤ Don't dump garbage at and around the source of water ➤ Don't wash clothes near the source. ➤ Don't tie an animal near the source. ➤ Don't disturb the source. ➤ Don't plant seedlings within 10 m radius from the source.

Attachment-3: Necessary Arrangements to Realize the Future Land Use

Present land use	Future land use	Necessary Arrangements
Dense Ai Bubur Forest	- <u>Dense Protected Forest (Ai Bubur and other species)</u>	<ul style="list-style-type: none"> - Protect the existing forest/trees from illegal cutting and forest fire in cooperation with MAF (NDF/Forest Guard). - Plant new seedlings of timber or indigenous tree species when cutting trees in the area. - Coordinate NDF/MAF District Office to get new seedlings. - Develop and enforce the village regulations to protect the area.
Dense Ai Ru Forest	- <u>Dense Protected Forest (Ai Ru)</u>	Same as above.
Medium Ai Bubur Forest	- <u>Dense/Medium Protected Forest (Ai Bubur and other species)</u>	<ul style="list-style-type: none"> - Protect the existing forest/trees from illegal cutting and forest fire in cooperation with MAF (NDF/Forest Guard). - Plant new seedlings of timber or indigenous tree species in the area especially when cutting trees. - Coordinate NDF/MAF District Office to get new seedlings. - Develop and enforce the village regulations to protect the area.
Sparse Ai Bubur Forest	<ul style="list-style-type: none"> - <u>Medium Rehabilitated Forest (Ai Bubur and other species)</u> - <u>Plantations (Coffee / Timber trees /Orchards)</u> 	<ul style="list-style-type: none"> - Protect the existing forest/trees from illegal cutting and forest fire in cooperation with MAF (NDF/Forest Guard). - Plant new seedlings of timber and leguminous tree species as well as other types of trees, such as fruits and coffee, in the area. - Coordinate NDF/MAF District Office to get new seedlings. - Maintain and protect seedlings planted from any damage. - Develop and enforce the village regulations to protect the area.
Coffee Plantation	- <u>Coffee Plantation</u>	<ul style="list-style-type: none"> - Protect the existing plantation/trees from illegal cutting and forest fire in cooperation with MAF (NDF/Forest Guard). - Maintain the plantation by applying proper practices including pruning and weeding. - Prune branches of coffee and shade trees when necessary. - Rejuvenate aged coffee trees when needed. - Plant new seedlings of shade and coffee trees in the area.
Area for shifting cultivation	<ul style="list-style-type: none"> - <u>Permanent farm</u> - <u>Plantations (Coffee / Timber trees /Orchards)</u> 	<ul style="list-style-type: none"> - Introduce and employ sloping agricultural techniques, such as bench terracing and contour composting, to use the farm continuously. - Apply animal manure/compost to the farm to maintain the soil fertility. - Amend the animal raising practice and plant fodder crops. - Plant new seedlings of timber, fodder, shade, coffee, and fruit trees in the area.
Permanent farm	<ul style="list-style-type: none"> - <u>Permanent farm</u> - <u>Farm mixed with fruit trees / Agroforestry farm</u> 	<ul style="list-style-type: none"> - Introduce and employ sloping agricultural techniques, such as bench terracing and contour composting, to use the farm continuously. - Apply animal manure/compost to the farm to maintain the soil fertility. - Amend the animal raising practice and plant fodder crops. - Plant new seedlings of fruit trees in the area. - Make a small pig pen.
Water sources	- <u>Protected Water Sources</u>	<ul style="list-style-type: none"> - Protect the source from any damage/destruction. - Protect the forests in a catchment of the source. - Plant seedlings near the source and in a catchment of the source.

Appendix-4.6

Outlines of the Micro Programs

Appendix-4.6 Outlines of the Micro Programs

Micro Program	Major Activities
Seedling Production and Tree Planting MP	<ul style="list-style-type: none"> a. Organization of beneficiaries' groups b. Selection of sites for community nurseries as demonstration plots c. Procurement of seeds and other materials for seedling production d. Hands-on training courses on seedling production at the nurseries, such as: <ul style="list-style-type: none"> - Development of community nursery (Site identification, measurement of the area, land preparation, fencing and roofing, development of watering system, preparation of seeding plots, etc.) - Sowing seeds - Collection of sands and other materials for amendment of soils - Filling of soils with sands and other stuff into plastic bags - Transplanting of seedlings - Watering and weeding e. Assistance in daily maintenance of community nursery f. Hands-on training courses in tree planting <ul style="list-style-type: none"> - Making and use of A-frame (Delineation of contour lines) - Sticking (Determination of planting points) - Hole digging and refilling of soils - Planting - Tending (weeding, mulching, etc.) g. Distribution of seedlings h. Technical assistance in planting and tending seedlings in individual plots i. Monitoring of survival rate
Home Garden / Vegetable Production MP	<ul style="list-style-type: none"> a. Organization of beneficiaries' groups b. Selection of vegetable farms as demonstration plots c. Hands-on training courses in vegetable production in the demonstration plots, such as: <ul style="list-style-type: none"> - Compost making - Land preparation with basal application - Development of nursery - Transplanting - Preparation and application of liquid fertilizer - Preparation and application of natural pesticide - Harvesting and seed collection d. Distribution of seeds e. Technical assistance in vegetable production in individual plots f. Monitoring of vegetable production by communities g. Assistance in coordination with MAF to get support (vegetable seeds) from the government
Community-based Seed Extension MP	<ul style="list-style-type: none"> a. Organization of beneficiaries' groups b. Coordination with MAF to collect improved seeds c. Selection of existing upland farms as demonstration plots d. Hands-on training courses on productive upland farming techniques, such as: <ul style="list-style-type: none"> - Compost making - Making and use of A-frame (Delineation of contour lines) - Application of soil conservation measures, such as contour compost - Preparation and application of liquid fertilizer - Harvesting and seed collection e. Distribution of improved seeds f. Technical assistance in production of upland crops using improved seeds g. Monitoring of use of the improved seeds distributed to the communities and production of upland crops in individual plots

Micro Program	Major Activities
Grazing Control MP	<ul style="list-style-type: none"> a. Organization of beneficiaries' groups b. Selection of areas that can be used for fodder crop/tree production as demonstration plots c. Determination of a free grazing area d. Hands-on training courses on fodder crop/tree production in the demonstration plots, such as: <ul style="list-style-type: none"> - Compost making - Making and use of A-frame (Delineation of contour lines) (if necessary) - Seeding or planting - Multiplication e. Segregation (fencing) of the designated grazing area using local materials f. Monitoring of use of the designated free grazing area
Sustainable Upland Farming Promotion MP	<ul style="list-style-type: none"> a. Organization of beneficiaries' groups b. Selection of existing upland farms as demonstration plots c. Hands-on training courses on sloping agriculture techniques in the demonstration plots, such as: <ul style="list-style-type: none"> - Compost making - Making and use of A-frame (Delineation of contour lines) - Application of soil conservation measures, bench terrace and contour composting - Preparation and application of liquid fertilizer - Harvesting and seed collection d. Distribution of seeds e. Technical assistance in application of soil conservation measures in individual plots f. Monitoring of application of the soil conservation measures introduced by the micro program
Rehabilitation of Coffee Plantation MP	<ul style="list-style-type: none"> a. Organization of beneficiaries' groups b. Selection of aged coffee plantations/unproductive coffee plantations c. Hands-on training courses in improvement of coffee production in the demonstration plots, such as: <ul style="list-style-type: none"> - Compost making - Rejuvenation - Training - Harvesting d. Hands-on training courses in establishing a new plantation, such as: <ul style="list-style-type: none"> - Land preparation - Making and use of A-frame (Delineation of contour lines) - Sticking (Determination of planting points) - Hole digging and refilling of soils - Planting e. Distribution of seedlings f. Technical assistance in improvement of coffee production and development of new plantations g. Monitoring of application of the techniques introduced by the micro program h. Monitoring of survival rate of seedlings planted in the plantations
Sustainable Use of Backyard/Permanent Farms MP	<ul style="list-style-type: none"> a. Organization of beneficiaries' groups b. Selection of backyard farms/permanent farms that can be used as demonstration plots c. Hands-on training courses for sustainable upland farming, such as: <ul style="list-style-type: none"> - Compost making - Making and use of A-frame (Delineation of contour lines) - Application of contour compost

Micro Program	Major Activities
	<ul style="list-style-type: none"> - Designing of farms and planting of fruits trees - Preparation and application of liquid fertilizer d. Distribution of seeds and seedlings e. Technical assistance in improvement of coffee production and development of new plantations f. Monitoring of application of the techniques introduced by the micro program g. Monitoring of survival rate of seedlings planted in the plantations
Income Generating/Livelihood Development MP	<ul style="list-style-type: none"> a. Organization of beneficiaries' groups b. Identification of potential livelihood activities c. Hands-on training courses for livelihood development d. Distribution of materials necessary for the selected livelihood development activities e. Technical assistance in introduction of the livelihood development activities by individual members f. Monitoring of introduction of the livelihood development activities and their effects/impact on household income or livelihood.
Initial Gully Erosion Control MP	<ul style="list-style-type: none"> a. Identification of gullies and potential areas for gully erosion in the village b. Identification of affected and potential affected communities c. Organization of the affected and potential affected communities into working groups c. Selection of target sites for the micro program d. Joint site inspection by the working groups, JICA Project Team, MAF, and NGO e. Designing of erosion control measures for the target sites f. Collection of local materials used for erosion control measures g. Construction of wooden check dams using local materials h. Planting of cover crops or grasses in the target sites i. Monitoring of effectiveness of the erosion control measures introduced

Appendix-4.7

Sample of the Provisional Scope of the Micro Programs

Appendix-4.7 Sample of the Provisional Scope of Micro Programs

No.	Micro Program	Activities	Target Beneficiaries	Responsible entities for implementation	Contributions from communities	Contributions from other stakeholders
1	Sustainable Upland Farming Promotion with Community-Based Seed Extension Micro Program	<ul style="list-style-type: none"> • Select members including core members among local communities • Make rules and regulations of the beneficiaries' groups • Make an overall work plan as well as an annual work plan from April 2011 to March 2012 • Arrange an exposure visit for the members to have a clear picture of the micro program • Hold a series of hands-on training courses (or field farmers' schools: FFSs) on techniques on sloping agriculture and upland farming • Establish a demonstration plots for techniques on sloping agriculture as a part of hands-on training courses • Provide materials (seeds and some tools) to the members who participate in the training courses • Monitor the application level of techniques introduced by the training courses 	<ul style="list-style-type: none"> • In principle, a total of 160 members are the members of the beneficiaries' groups. • Among 160 members, those who participate in the training courses are eligible to receive materials. • However, the training courses are basically open to all everyone. 	<ul style="list-style-type: none"> • Leaders of suco • Communities/ Members • JICA Project Team • MAF Project Team • NGO 	<ul style="list-style-type: none"> • Labor • Land for demonstration plots • Meeting venues • Snacks (Local food) • Other local materials needed for the training courses • Farm tools when participating in the training courses 	<ul style="list-style-type: none"> • Farm tools (external) • Seeds • Training • Technical assistance • Resource persons for the training courses • Food

Appendix-4.7 Sample of the Provisional Scope of Micro Projects

No.	Micro Program	Activities	Target Beneficiaries	Responsible entities for implementation	Contributions from communities	Contributions from other stakeholders
2	Income Generating / Livelihood Development Micro Program	<ul style="list-style-type: none"> • Select members among local communities • Make rules and regulations of the beneficiaries' groups • Make an overall work plan as well as an annual work plan from April 2011 to March 2012 • Arrange an exposure visit for the members to have a clear picture of the micro program • Identify and determine the livelihood development options to be introduced by the program • Hold a series of hands-on training courses on techniques on the selected livelihood development options • Hold several training courses on financial management of the beneficiaries' groups • Provide tools and materials to the beneficiaries' groups to conduct the livelihood activities • Monitor the operations of the livelihood development activities and financial status of the beneficiaries' groups 	<ul style="list-style-type: none"> • In principle, a total of 40 women are the members of the beneficiaries' groups. • However, the training courses are basically open to all everyone. 	<ul style="list-style-type: none"> • Leaders of suco • Communities/ Members • JICA Project Team • MAF Project Team • NGO 	<ul style="list-style-type: none"> • Labor • Venues for meeting / training • Snacks (Local food) • Other local materials needed for the training courses • Local tools when having the training courses 	<ul style="list-style-type: none"> • External tools • External materials for livelihood development activities • Training • Technical assistance • Resource persons for the training courses • Food

at Fadabloco, on November 24, 2011

Serafin dos Santos
Chef de Suco of
Fadabloco

Fernando C. Araujo
Project Manager of the
Project

Yoji Mizuguchi
Chief Advisor of the
JICA Project Team

Appendix-5.1

Format of a Memo of Monthly Monitoring Meeting

Appendix-5.1 Format of a Memo of Monthly Monitoring Meeting

1. General Information of Meeting

Date of Meeting	
Village	
No of Participant	
Time Starting/closing	
Person responsible for entry	

2. Issue shared by aldeias

Aldeia:

Major issues in the month	Action taken/agreed upon by the committee

Aldeia:

Major issues in the month	Action taken/agreed upon by the committee

Aldeia:

Major issues in the month	Action taken/agreed upon by the committee

Aldeia:

Major issues in the month	Action taken/agreed upon by the committee

3. Other Issues discussed

Other topic

4. Necessity of Revision of the Regulations

Article	Clause	Points that considered

5. Comments/Suggestion from the Undersigned

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Appendix-5.2

Draft Guidelines on Selection of Members of Farmers'/Beneficiaries' Groups for the Micro Programs

Appendix-5.2 Draft Guidelines on Selection of Members of Farmers'/ Beneficiaries' Groups for the Micro Programs

Micro Programs	Eligibility for Ordinary Members	Eligibility for Core Member
Sustainable Upland Farming Promotion MP	Households who meet the following criteria can be the members of the beneficiaries' group for the micro program. <ul style="list-style-type: none"> - HHs who are willing to convert the areas for shifting cultivation into permanent farms; - HHs who are willing to apply soil conservation measures in their own farms; - HHs who are willing to participate in a series of hands-on training courses and meetings voluntarily; - HHs who are willing to cooperate with NGO for monitoring the accomplishments of the micro program (e.g., the number of members who apply the techniques and the yields of upland crops produced by the members); - HHs who are willing to coordinate with NGO/MAF/JICA in the course of the micro program; and - HHs who are willing to share his experiences and knowledge with other households. 	The core member shall satisfy the following criteria in addition to those for the ordinary members. <ul style="list-style-type: none"> - HHs who can allow the Program to use his/her area as an demonstration plot of the group; - HHs who are willing to share farm products produced in a demonstration plot among members of his/her beneficiaries' group; - HHs who are willing to lead other members of the group in hands-on training courses as well as other group activities; and - HHs who are willing to help other members learn and acquire the techniques/skills introduced in the demonstration plots.
Seedling Production and Tree Planting Promotion MP	Households who meet the following criteria can be the members of the beneficiaries' group for the micro program. <ul style="list-style-type: none"> - HHs who have areas that can be used for planting trees and converted into plantations; - HHs who are willing to learn the skills and techniques on seedling production and planting of trees - HHs who are willing to participate in a series of hands-on training courses and meetings without pay; - HHs who are willing to work in the community nursery and demonstration plots of the group voluntarily; - HHs who are willing to cooperate with NGO for monitoring the accomplishments of the micro program (e.g., the numbers of seedlings distributed to each member, the ratio of planted seedlings, and the survival rates of the planted seedlings); - HHs who are willing to coordinate with NGO/MAF/JICA in the course of the micro program - HHs who are willing to share his experiences and knowledge with other households 	The core member shall satisfy the following criteria in addition to those for the ordinary members. <ul style="list-style-type: none"> - HHs who can allow the Program to use his/her areas for a community nursery and demonstration plots for plantation establishment; - HHs who can voluntarily work for maintenance and management of a community nursery and demonstration plots of the group; - HHs who are willing to lead other members of the group in hands-on training courses as well as other group activities; and - HHs who are willing to help other members learn and acquire the techniques/skills introduced in hands-on training courses.
Sustainable Upland Farming Promotion with Community-Based Seed Extension	Households who meet the following criteria can be the members of the beneficiaries' group for the micro program. <ul style="list-style-type: none"> - HHs who are willing to convert the areas for shifting cultivation into permanent 	The core member shall satisfy the following criteria in addition to those for the ordinary members. <ul style="list-style-type: none"> - HHs who can allow the Program to use his/her area as an demonstration plot of

Appendix-5.2 Draft Guidelines on Selection of Members of Farmers'/ Beneficiaries' Groups for the Micro Programs

MP	<p>farms;</p> <ul style="list-style-type: none"> - HHs who are willing to apply soil conservation measures in their own farms; - HHs who are willing to participate in a series of hands-on training courses and meetings voluntarily; - HHs who are willing to work for seed multiplication for other communities in the village; - HHs who are willing to cooperate with NGO for monitoring the accomplishments of the micro program (e.g., the number of members who apply the techniques and the yields of upland crops produced by the members); - HHs who are willing to coordinate with NGO/MAF/JICA throughout the course of the micro program; and - HHs who are willing to share his experiences and knowledge with other households. 	<p>the group;</p> <ul style="list-style-type: none"> - HHs who are willing to share farm products produced in a demonstration plot with members of the group as well as other communities in the village; - HHs who are willing to lead other members of the group in hands-on training courses as well as other group activities; and - HHs who are willing to help other members learn and acquire the techniques/skills introduced in the demonstration plots.
Income Generating / Livelihood Development MP	<p>Women who meet the following criteria can be the members of the beneficiaries' group for the micro program.</p> <ul style="list-style-type: none"> - Women who have strong interest in income generating activities; - Women who are willing to learn the skills and techniques on several income generating activities; - Women who are willing to participate in a series of hands-on training course and meeting voluntarily; - Women who are willing to engage in income generating activities without pay; - Women who are willing to work together with other members as a group; - Women who are willing to use and manage the profit from income generating activities for the sake of members of the group or group itself; - Women who are willing to cooperate with NGO for monitoring the accomplishments of the micro program (commodities produced, income generated from the activities, expenses used by the group, and share among the members); - Women who are willing to coordinate with NGO/MAF/JICA in the course of the micro program - Women who are willing to share her experiences and knowledge with other women 	<p>The core members shall satisfy the following criteria in addition to those for the ordinary members.</p> <ul style="list-style-type: none"> - Women who can allow the Program to use her house or lot for the income generating activities; - Women who can voluntarily maintain and manage tools and materials for income generating activities; - Women who are willing to lead other members of the group in hands-on training courses, meetings, and other group activities; and - Women who are willing to help other members learn and acquire the techniques/skills introduced by the program; and - Women who can share the responsibility with the group leader for proper and transparent financial management of the group.

Appendix-5.3

Standard Roles and Responsibilities of Members of Beneficiaries' Groups

Appendix- 5.3 Standard Roles and Responsibilities of Members of Beneficiaries Group

Type of Members	Roles and Responsibilities
Group leader	<ul style="list-style-type: none"> - Be responsible for the overall activities of the group - Hold and chair the meetings of the group - Make a work plan together with other members - Solve any problems and issues of the group or among the members with the assistance from NGO, MAF and JICA Project Team - Facilitate the members' participation in training courses, meetings, and other group activities - Keep the list of members of the group updated - Keep the members informed of the project activities, especially the schedule of the project activities - Be responsible for proper and fair distribution of tools and materials, which will be provided by the micro program, to the members with registration of the tools and materials with members' names - Ensure that the tools and materials distributed to the members will be properly maintained and used by the members - Ensure that farm products produced in the demonstration plot will be shared among the member - Encourage the members to apply and replicate the techniques on sloping agriculture / soil conservation measures in their own farms - Periodically monitor the activities and progress of the micro program together with NGO, MAF/NDF and/or JICA Project Team - Coordinate with NGO, MAF/NDF and JICA Project Team in the course of the micro program - Coordinate with village leaders (e.g., Chef de Suco & Chef de Aldeia)
Core member	<ul style="list-style-type: none"> - Attend training courses, meetings and other program activities - Offer a land for the demonstration plot of the group - Help the group leader facilitate the members' participation encouraging them to acquire the techniques and skills from the micro program - Develop and maintain the demonstration plot together with other members of the group - Share farm products produced in the demonstration plot with other members of the group - Help other members apply and replicate the techniques on sloping agriculture in their own farms - Help the group leader register the tools and materials distributed to the members - Help the group leader monitor the activities and progress of the micro program - Coordinate with NGO, MAF/NDF and JICA Project Team in the course of the micro program and allow them to enter the demonstration plot for monitoring
Other participating members	<ul style="list-style-type: none"> - Attend training courses, meetings, and other program activities - Work together with the core member as well as other members for development and management of the demonstration plot of the group - Help and encourage each other to attend the program activities (i.e., training courses, meetings, and others) and to apply/replicate the techniques on sloping agriculture / soil conservation measures in their own farms - Properly maintain and use the tools and materials provided by the micro program for application of the techniques - Provide information necessary for monitoring to group leader, NGO, MAF, and JICA Project Team - Manage their own farms with application of the techniques introduced in the demonstration plot - Coordinate with the group leader, core member, NGO, MAF/NDF and JICA Project Team in the course of the micro program and allow them to enter their own farms for monitoring

Appendix-5.4

***Draft Visions and Missions of
Farmers'/Beneficiaries' Groups for
Micro Programs***

Appendix-5.4 Draft Visions and Missions of Farmers'/Beneficiaries' Groups for Micro Programs

Micro Programs	Visions	Missions
Sustainable Upland Farming Promotion MP	<ul style="list-style-type: none"> - The village can achieve the goals of the future land use plan through the implementation of this micro program. - All the members of the group will learn and acquire the techniques and skills on sloping agriculture/soil conservation measures; - All the members of the group will convert the areas for shifting cultivation to permanent farms applying the techniques; - All the members of the group can improve and maintain soil fertility of their permanent farms; - All the members of the group can be role models for other communities in the village to introduce the techniques on sloping agriculture / soil conservation measures; and - Other communities in the village will apply the techniques in their own farms/plots with the assistance of the beneficiaries' group. 	<p>The missions of the beneficiaries group of the micro program are:</p> <ul style="list-style-type: none"> - to ensure the participation of the members of the beneficiaries' group in hands-on training courses, meetings and other group activities; - to ensure that the micro program can benefit as many members of the group as possible; - to ensure that the members of the beneficiaries group will help each other in the course of the micro program, especially in the application of the techniques on sloping agriculture in their own farms; - to enhance the awareness of the importance of the techniques on sloping agriculture among the members of the group as well as other communities in the village; - to disseminate the effectiveness of the micro program to village leaders as well as other members of the communities; and - to coordinate, collaborate, and cooperate with NGO, MAF and JICA Project Team in the course of the micro program.
Community-Based Seed Extension MP	<ul style="list-style-type: none"> - The village can achieve the goals of the future land use plan through the implementation of this micro program. - All the members of the group will learn and acquire the techniques and skills on upland farming and seed multiplication; - All the members of the group can increase the productivity of upland crops and secure sufficient volume of seeds for next cropping; - Other communities in the village can receive quality seeds produced in the demonstration plots; and - All the members of the group can be role models for other communities in the village to produce upland crops. 	<p>The missions of the beneficiaries group of the micro program are:</p> <ul style="list-style-type: none"> - to ensure the participation of the members of the beneficiaries' group in hands-on training courses, meetings and other group activities; - to ensure that the micro program can benefit as many members of the group as possible; - to ensure that the members of the beneficiaries group will help each other in the course of the micro program; - to disseminate the effectiveness of the micro program to village leaders as well as other members of the communities; and - to coordinate, collaborate, and cooperate with NGO, MAF and JICA Project Team in the course of the micro program.
Seedling Production and Tree Planting Promotion MP	<ul style="list-style-type: none"> - The village can achieve the goals of the future land use plan through the implementation of this micro program. - All the members of the group will learn and acquire the techniques and skills on seedling production and tree planting/tending. - All the members of the group will plant seedlings in their own farms/plots. - All the members of the group will convert the areas for shifting 	<p>The missions of the beneficiaries group of the micro program are:</p> <ul style="list-style-type: none"> - to ensure the participation of the members of the beneficiaries' group in hands-on training courses, meetings and other group activities; - to ensure that the micro program can benefit as many members of the group as possible; - to ensure that the members of the beneficiaries group will help each other in the course of the micro program, especially in nursery operations and planting seedlings in their own farms/plots;

Appendix-5.4 Draft Visions and Missions of Farmers'/Beneficiaries' Groups for Micro Programs

Micro Programs	Visions	Missions
	<p>cultivation to timber plantation, coffee plantation, or agroforest farms using seedlings produced by the micro program.</p> <ul style="list-style-type: none"> - All the members of the group will continue seedling production in coordination with MAF in the post-project period. - All the members of the group can be role models for other communities in the village to produce seedlings and establish a timber/coffee/agroforest plantation. 	<ul style="list-style-type: none"> - to enhance the awareness of the importance of planting trees (fodder/timber/shade/fruit trees) in terms of the environmental protection as well as socio-economic development aspects; - to disseminate the effectiveness of the micro program to village leaders as well as other members of the communities; and - to coordinate, collaborate, and cooperate with NGO, MAF and JICA Project Team in the course of the micro program.
Income Generating / Livelihood Development MP	<ul style="list-style-type: none"> - The village can develop several income generating options that local households can follow to increase the household income. - All the members of the group as well as other communities in the village will recognize the values of natural resources available in the localities and improve their daily activities for sustainable management and use of the valuable resources. - All the members of the group will learn and acquire the techniques and skills on income generating activities. - The beneficiaries' group can earn cash income from income generating activities. - The beneficiaries' group can manage and use the earnings from income generating activities in a sustainable and proper manner. - All the members of the group can be role models for other communities in the village to introduce the same income generating activities. 	<p>The missions of the women's group of the micro program are:</p> <ul style="list-style-type: none"> - to ensure the participation of the members of the women's group in hands-on training courses, meetings and other group activities; - to ensure that the earnings generated from income generating activities can be managed in a proper and transparent manner; - to ensure that the members of the women's group can benefit from income generating activities; - to ensure that the members of the beneficiaries group will help each other in the operations of income generating activities; - to enhance the awareness of the importance of sustainable management of natural resources valuable and useful for income generating activities; - to disseminate the effectiveness of the micro program to village leaders as well as other members of the communities; and - to coordinate, collaborate, and cooperate with NGO, MAF and JICA Project Team in the course of the micro program.

Appendix-5.5

Major Activities of Potential Agriculture and Forestry Extension Services/Micro Programs

Appendix-5.5 Major Activities of Potential Agriculture and Forestry Extension Services/Micro Programs

Micro Program	Major Activities	Proposed timeline
Seedling Production and Tree Planting MP	<ul style="list-style-type: none"> a. Selection of sites for community nurseries as demonstration plots b. Procurement of seeds and other materials for seedling production c. Hands-on training courses on nursery operation techniques <ul style="list-style-type: none"> - Establishment of a nursery (Land preparation, development of a watering system, fencing and thaching) - Preparation of a seedbed and seedling beds - Sowing seeds - Collection of sands, black soils, compost, and other soil amendments (e.g., saw dust or rice husk) - Mixing of sands, soils, and soil amendments - Filling of the mixtures into poly bags - Transplanting of sprouts into poly bags filled with the mixtures - Watering and weeding d. Hands-on training courses in on tree planting techniques <ul style="list-style-type: none"> - Compost making including maintenance of compost - Making and use of A-frame (Delineation of contour lines) - Sticking (Determination of planting points) - Hole digging and refilling of soils - Planting - Tending (weeding, mulching, etc.) e. Distribution of seedlings f. Evaluation and planning workshop 	<p>March (1st year) March ~ July (1st year)</p> <p>March (1st year) March (1st year) March ~ July (1st year) April (1st year) April (1st year) April (1st year) April ~ August (1st year) May ~ November (1st year)</p> <p>June ~ September (1st year) September (1st year) September (1st year) October (1st year) November (1st year) December (1st year) ~ March (2nd year) November (1st year) February (2nd year)</p>
Home Garden / Vegetable Production MP	<ul style="list-style-type: none"> a. Identification and selection of a farm used for a demonstration plot b. Hands-on training courses on vegetable production techniques <ul style="list-style-type: none"> - Compost making including maintenance of compost - Land preparation - Development of a nursery - Transplanting of sprouts into pots made of banana leaves - Making of ridges - Application of compost - Planting of seedlings - Preparation of liquid fertilizer and natural pesticide - Application of liquid fertilizer and natural pesticide - Harvesting and seed collection d. Distribution of seeds e. Evaluation and planning workshop 	<p>March (1st year)</p> <p>March ~ June (1st year) April (1st year) April/May (1st year) May (1st year) May (1st year) June (1st year) May (1st year) May (1st year) June ~ September (1st year) June ~ October (1st year) May (1st year) January (2nd year)</p>
Sustainable	<ul style="list-style-type: none"> a. Identification and selection of an existing farm which can be used as a demonstration plot 	<p>April (1st year)</p>

Appendix-5.5 Major Activities of Potential Agriculture and Forestry Extension Services/Micro Programs

Micro Program	Major Activities	Proposed timeline
Upland Farming Promotion with Community-based Seed Extension MP	b. Hands-on training courses on upland farming techniques <ul style="list-style-type: none"> - Compost making including maintenance of compost - Making and use of A-frame (Delineation of contour lines) - Application of soil conservation measures, namely contour compost terracing /bench terracing technique - Cultivation and application of compost - Seed selection and sowing of seeds - Preparation and application of liquid fertilizer - Maintenance of a farm with application of liquid fertilizer - Planting of fodder crops as hedgerow - Application of green manure - Building of an animal pen (optional) - Post harvest (drying, seed collection, and storing) - Maintenance of terraces c. Procurement of improved seeds/planting materials of key staple crops d. Distribution of improved seeds/planting materials of key staple crops e. Evaluation and planning workshop	May ~ August (1 st year) June/July (1 st year) August/September (1 st year) September/October (1 st year) October/November (1 st year) November (1 st year) December (1 st year) ~ February (2 nd year) January (2 nd year) February/March (2 nd year) February (2 nd year) April (2 nd year) May (2 nd year) October (1 st year) October/November (1 st year) May/June (2 nd year)
Grazing Control MP	a. Identification and selection of an area that can be used as a demonstration plot b. Hands-on training courses on fodder crop/tree production techniques <ul style="list-style-type: none"> - Compost making including maintenance of compost - Making and use of A-frame (Delineation of contour lines) - Application of soil conservation measures, namely contour compost terracing /bench terracing technique - Land preparation and application of compost - Seeding or planting - Building of an animal pen - Multiplication of planting materials c. Distribution of seeds/planting materials d. Evaluation and planning workshop	April (1 st year) May ~ August (1 st year) August (1 st year) September (1 st year) October (1 st year) November (1 st year) February (2 nd year) March (2 nd year) October (1 st year) March (2 nd year)
Rehabilitation of Coffee Plantation MP	a. Identification and selection of an aged coffee plantation as a demonstration plot b. Hands-on training courses on coffee cultivation techniques including rejuvenation <ul style="list-style-type: none"> - Compost making including maintenance of compost - Rejuvenation - Making and use of A-frame (Delineation of contour lines) - Sticking (Determination of planting points) - Hole digging and refilling of soils with compost - Planting - Harvesting - Training/Pruning (2nd year) 	April (1 st year) May ~ August (1 st year) August (1 st year) August (1 st year) September (1 st year) October (1 st year) November/December (1 st year) June/July (1 st year) August (1 st year)

Appendix-5.5 Major Activities of Potential Agriculture and Forestry Extension Services/Micro Programs

Micro Program	Major Activities	Proposed timeline
	e. Distribution of seedlings f. Evaluation and planning workshop	November (1 st year) August (2 nd year)
Sustainable Use of Backyard/Permanent Farms MP	a. Identification and selection of an existing farm which can be used as a demonstration plot b. Hands-on training courses on upland farming techniques - Compost making including maintenance of compost - Making and use of A-frame (Delineation of contour lines) - Designing of farms - Application of soil conservation measures, namely contour compost terracing /bench terracing technique - Cultivation and application of compost - Seed selection and sowing of seeds - Planting of fruits tree - Preparation and application of liquid fertilizer - Maintenance of a farm with application of liquid fertilizer - Planting of fodder crops as hedgerow - Application of green manure - Building of an animal pen (optional) - Post harvest (drying, seed collection, and storing) - Maintenance of terraces c. Procurement of improved seeds of maize and fruit seedlings d. Distribution of improved seeds of maize and fruit seedlings e. Evaluation and planning workshop	April (1 st year) May ~ August (1 st year) July (1 st year) July (1 st year) August (1 st year) September/October (1 st year) October/November (1 st year) November/December (1 st year) November (1 st year) December (1 st year) ~ February (2 nd year) January/February (2 nd year) February (2 nd year) February (2 nd year) April (2 nd year) May (2 nd year) October/November (1 st year) October/November (1 st year) June (2 nd year)
Income Generating/Livelihood Development MP	a. Resource inventory and selection of potential IG/LD activities b. Hands-on training courses on techniques related to selected potential IG/LD activities - Herbal tea production - Chips production - Dried sweet potato - Salted vegetable production (Long period soaking) - Salted vegetable production (Short period soaking) - Sewing machine and clothes making - Promotion of product - Bookkeeping - Discussion on use of earnings/savings c. OJTs on techniques related to selected potential IG/LD activities d. Evaluation and planning workshop	March (1 st year) April ~ June (1 st year) May (1 st year) July (1 st year) June/July (1 st year) June/July (1 st year) December (1 st year) & February (2 nd year) October (1 st year) March (2 nd year) March (2 nd year) April ~ March (2 nd year) June (2 nd year)
Initial Gully Erosion Control MP	a. Identification and selection of an existing gully erosion area as a demonstration plot b. Site inspection c. Designing of a wooden check dam as an erosion control measure	May/June (1 st year) June (1 st year) June/July (1 st year)

Appendix-5.5 Major Activities of Potential Agriculture and Forestry Extension Services/Micro Programs

Micro Program	Major Activities	Proposed timeline
	d. Collection of local materials used for making wooden check dams in the demonstration plot e. Construction of wooden check dams using local materials f. Procurement of seeds/planting materials of cover crops/grasses/leguminous trees g. Planting of cover crops or grasses in the target sites h. Evaluation and planning workshop	July (1 st year) August (1 st year) December (1 st year) January (2 nd year) March (2 nd year)

Appendix-5.6

Training Modules of Key Agricultural and Forestry Extension Services/Micro Programs

Appendix-5.6 Training Modules of Key Agricultural and Forestry Extension Services/Micro Programs

a. Seedling Production and Tree Planting Promotion

Training course	Items	Description
Nursery establishment	Objectives	To enable the members to build a small-scale community nursery by using local materials.
	Timeframe	6 days a. Installation of water system (2 days) b. Development of a nursery (4 days)
	Materials	Farm tools (machete, saw, shovel, hammer), materials for water system (water tank, pipes, hose), props (wood and bamboo poles), roof frames (wood and bamboo poles) and thatching roof (naro grasses, palm leaves), nail, wire.
	Expected Results	A small-scale nursery will be established.
Seed preparation and sowing seeds	Objectives	To enable the members to sow seeds properly in the seedbed and facilitate seed germination.
	Timeframe and process	4 days a. Collection of seeds (1 day) b. Pre-treatment of seeds (1 day) c. Making seedbed (1 day) d. Sowing and maintenance of seeds sown in the seedbed (1 day)
	Materials	Farm tools (machete, saw, shovel, scoop, hammer), materials for the frame of seedbed (wood or bamboo poles), nail, wire and medium for the seedbed (soil, sand and compost), water can, plastic sheet (optional)
	Expected Results	Seeds sown in the seedbed will germinate at a high rate.
Preparing seedling pots	Objectives	To enable the members to prepare seedling pots and transplant sprouts in a proper manner
	Timeframe and process	2~3 days a. Collection of materials for potting media (1 day) b. Mixing of potting media (0.5 day) c. Filling soil of the mixture into pots (0.5 day) d. Transplanting of sprouts into pots (0.5 day)
	Materials	Farm tools (iron stick, shovel, scoop), wheel barrow, stick, shallow bowl, sieve, poly bags, soil, sand, compost, rice husk (optional), wood plate (for label at the seedling block)
	Expected Results	Seedlings will be transplanted to seedling pots
Maintenance of seedlings	Objectives	To enable the members to properly maintain seedlings in the nursery
	Timeframe and process	2~3 days a. Watering and weeding (0.5 day) b. Spacing and root pruning (0.5 day) c. Preparation of liquid fertilizer (0.5 day) d. Application of liquid fertilizer (0.5 day) e. Pest control (0.5 day)
	Materials	Scissor, drum, materials for making liquid fertilizer (weed and water), materials for making pesticide (tobacco, water, etc) and hand spray
	Expected Results	Seedlings will grow in healthy condition in the nursery.
Hardening-off	Objectives	To enable the members to adapt seedlings to external environment similar to that of the of planting site
	Timeframe	1 day a. Reduction of watering, shading, root pruning and fertilizing (1 day)
	Materials	-
	Expected Results	Seedlings will be ready for planting.

Appendix-5.6 Training Modules of Key Agricultural and Forestry Extension Services/Micro Programs

Training course	Items	Description
Production of compost	Objectives	To enable the members to produce organic fertilizer (compost) using materials locally available.
	Timeframe	<u>1st training: 2 days</u> a. Collection and chopping of materials (0.5 day/1st day) b. Pitting (0.5 day/1st day) c. Piling of materials (1 day/2nd day) <u>2nd training: 1 day</u> a. Turning (1 day)
	Materials	Farm tools (Iron stick, machete, shovel), materials for compost (grasses, weeds, stalks, manures, soils/ashes), Banana leaves, Thatching materials (4 pcs of 1~2 m pole and coconut leaves)
	Expected Results	2~3 ton of compost will be produced.
Delineation of contour lines	Objectives	To enable the members to properly delineate contour lines using a tool made of materials locally available.
	Timeframe and process	2~3days a. Collection of materials (0.5 day/1st day) b. Framing of an A-frame (2 hours/1st day) c. Preparation of sticks (1 hours/1st day) d. Delineation of contour lines (1 day/2nd day)
	Materials (for 3 units of A-frame)	6 pcs of 2 m pole, 3 pcs of 1m pole, 3 pcs of 1.5 m string, 3 pcs of handful stones/blocks, wires or nails and machete
	Expected Results	Contour lines will be delineated in the plantation site.
Planting	Objectives	To enable the members to plant seedlings in a proper manner
	Timeframe and Process	2~3 days a. Digging of pits (1 day) b. Refilling of pits with soils and compost (1 day) c. Selection and transporting of seedlings (0.5 day) d. Planting of seedling (1 day)
	Materials	Scale, farm tools (shovel, pickax and iron stick), compost
	Expected Results	Seedlings will be planted in the plantation site according to the layout.
Tending	Objectives	To enable the members to properly maintain seedlings to ensure high survival and robust initial growth of seedlings.
	Timeframe and Process	1 day a. Weeding and mulching (0.5 day) b. Shading (0.5 day)
	Materials	Machete and materials for shading (coconuts leaves)
	Expected Results	Young stands will grow vigorously and healthy.

Source: JICA Project Team (2015)

b. Sustainable Upland Farming Promotion with Community-Based Seed Extension

Training course	Items	Descriptions
Compost Production	Objectives	To enable the members to produce organic fertilizer (compost) using materials locally available.
	Timeframe	<u>1st training in making compost (2 days)</u> a. Collection and chopping of materials (0.5 day/1st day) b. Pitting (0.5 day/1st day) c. Piling of materials (1 day/2nd day) <u>2nd training in maintenance of compost (1 day)</u> a. Turn-over of compost (1 day)
	Materials	Farm tools (Iron stick, machete, shovel), materials for compost (grasses, weeds, stalks, manures, soils/ashes), banana leaves, thatching materials (4 pcs of 1~2 m pole and coconut leaves)
	Expected results	2~3 ton of compost will be produced.
Delineation of contour lines	Objectives	To enable the members to properly delineate contour lines using materials locally available.
	Timeframe and process	<u>2 days training in delineation of contour lines</u> a. Collection of materials (0.5 day/1st day) b. Framing of an A-frame (2 hours/1st day) c. Preparation of sticks (1 hours/1st day) d. Delineation of contour lines (1 day/2nd day)
	Materials (for 3 units of A-frame)	6 pcs of 2 m pole, 3 pcs of 1m pole, 3 pcs of 1.5 m string, 3 pcs of handful stones/blocks, and wires or nails
	Expected results	Contour lines will be delineated in the demonstration plot.
Application of contour composting technique	Objectives	To enable the members to apply contour composting technique
	Timeframe	<u>2~3 days training in applying contour compost</u> a. Digging of contour canals (1 day) b. Making of contour bunds or stone bund (1 day) c. Making of wattles (optional) (1 day)
	Materials	Farm tools, bamboo poles for wattles
	Expected results	Contour composts will be developed in the demonstration plot.
Plowing with compost application	Objectives	To enable the members to cultivate a farm with application of compost in a proper manner
	Timeframe	<u>2 days training in plowing with compost application</u> a. Cultivation (1 day) b. Application of compost (1 day)
	Materials	Farm tools (machete, hoe, pickax) and compost
	Expected results	The demonstration plot is ready for planting.
Selection of seeds/ planting materials	Objectives	To enable the members to understand how to use improved seeds and select quality seeds before planting.
	Timeframe	<u>2 days training in selection of seeds & plots for improved ones</u> a. Introduction of the use of improved seeds (0.5 day/1 st day) b. Selection of quality seeds of maize, beans and planting materials of cassava and other crops (0.5 day/1 st day) c. Selection of plots for improved maize (1 day/2 nd day)
	Materials	Seeds and planting materials of crops
	Expected results	Quality seeds and planting materials of major upland crops will be selected.
Sowing/Planting	Objectives	To enable the members to sow/plant crops in line at the recommendable spaces of the respective crops
	Timeframe	<u>1st training in planting maize and beans (1 day in Nov.)</u> a. Sowing of maize by measuring the distance (0.5 day) b. Sowing of beans by measuring the distance (0.5 day) <u>2nd training in planting cassava, pumpkin, beans (1 day in Dec.)</u> a. Planting of cassava /sweet potato / pumpkin by measuring the distance (0.5 day) b. Sowing of beans by measuring the distance (0.5 day) <u>3rd training in planting peanut (1 day in Dec.)</u> a. Sowing of peanut by measuring the distance

Appendix-5.6 Training Modules of Key Agricultural and Forestry Extension Services/Micro Programs

Training course	Items	Descriptions
	Materials	Seeds/planting materials 1~2 m of rope/stick with 10 cm scales
	Expected results	Upland crops will be planted in line in a systematic manner in the demonstration plot.
Preparation of liquid fertilizer	Objectives	To enable the members to prepare liquid fertilizer using materials locally available.
	Timeframe	<u>1 day training in preparing liquid fertilizer</u> a. Collection of local materials (0.5 day) b. Mixing of materials (0.5 day) <u>2~3 weeks OJT in stirring liquid fertilizer by core members</u> a. Stirring (10 min/day x 2 ~3 weeks)
	Materials	Animal dung (2 sacks), Grasses/weeds (2 sacks), Soils (2~3 shovels), Ashes (1 shovel), and water
	Expected results	A can of liquid fertilizer will be prepared and ready to use at the demonstration plot.
Weeding, mulching, and application of liquid fertilizer	Objectives	To enable the members to properly maintain farms to keep crops healthy and improve/stable crop productions in farms.
	Timeframe	<u>1st training in maintaining crops (1 day in Dec.)</u> a. Weeding/cultivation and mulching (0.5 day) b. Additional fertilization using liquid fertilizer (0.5 day) <u>2nd training in maintaining crops (1 day in Jan.)</u> a. Weeding/cultivation and mulching (0.5 day) b. Additional fertilization using liquid fertilizer (0.5 day) <u>3rd training in maintaining crops (1 day in Feb.)</u> a. Weeding/cultivation and mulching (0.5 day) b. Additional fertilization using liquid fertilizer (0.5 day)
	Materials	Farm tools (machete and hoe), a water can, and liquid fertilizer
	Expected Results	Crops planted in the demonstration plots will grow well and produce high yields.
Post-harvesting and storage of seeds of maize	Objectives	To enable the members to properly dry, select, and store corn grains for seeds of maize for next season's cropping.
	Timeframe	<u>1st training in drying maize (1 day in Mar./Apr.)</u> a. Spreading of maize cobs (0.5 day) b. Drying of maize (0.5 day) <u>2nd training in storing maize (1 day in Apr.)</u> a. Selection of cobs and collection of grains (0.5 day) b. Storage of grains in airtight containers (0.5 day)
	Materials	Plastic sheet, baskets, and airtight containers (drum can, jerry cans, and bottles of aqua)
	Expected results	Quality seeds of maize for next cropping season will be properly stored.

Source: JICA Project Team (2015)

c. Income Generating/Livelihood Development

Training course	Items	Description
Resource inventory	Objectives	To help trainees/women assess existing resources useful for IG/LD activities.
	Timeframe	<u>1st session: Resource mapping (1.5 days)</u> a. Introduction and resource mapping (0.5 day) b. Field observation (transect walking) (0.5 day) c. Finalization of a resource map (0.5 day) <u>2nd session: Seasonal calendar (1.0 day)</u> a. Identification of resources and farming activities (0.5 day) b. Discussion on the seasonality of resources and activities (0.5 day) <u>3rd session: Resource assessment (1.0 day)</u> a. Introduction and recapturing of the previous sessions (0.2 day) b. Listing of potential resources and discussion of possible uses of the resources (0.5 day) c. Identification of potential IG/LD activities (0.3 day)
	Materials	Flipcharts, Felt-type pens, Masking tapes, Notes, and Pens
	Expected results	List of potential IG/LD options
Selection of potential IG/LD activities	Objectives	To help trainees/women select and prioritize potential IG/LD activities in a participatory manner.
	Timeframe	a. Introduction and explanation of the process and method of evaluation (0.2 day) b. Evaluation of potential IG/LD activities (0.5 day) c. Selection of priority IG/LD activities (0.3 day)
	Materials	Flipcharts, Felt-type pens, Masking tapes, Notes, and Pens
	Expected results	List of priority IG/LD activities
Herbal tea production	Objectives	To enable trainees/women produce herbal tea made of plants and leaves available in the locality.
	Timeframe	<u>1st session: Collection, washing, and drying (1 day)</u> a. Collection and sorting (0.25 day) b. Washing (0.25 day) c. Drying (0.5 day) <u>2nd session: Sorting out and packing with labeling (1.0 day)</u> a. Quality check, packing, and labeling
	Materials	Raw materials: leaves of dareta, lime, avocado, etc. Instruments: washing bowl, drainer, drying tray, poly net, drying stand, black cloth, poly bags, and labels
	Expected results	Women can produce herbal tea made of plants/leaves naturally grown in the locality using a simple technique.
Dried sweet potato	Objectives	To help trainees/women produce dried sweet potato as a long-life food using sweet potato harvested in the locality.
	Timeframe	<u>1st session: Washing, steaming, and drying (1.0 days)</u> a. Washing and cleaning (0.25 day) b. Steaming (0.25 day) c. Drying (0.5 day) <u>2nd session: Packing and labeling (1.0 day)</u> a. Packing and labeling (1.0 day)
	Materials	Raw materials: sweet potatoes Instruments: steamer, slicer, drying stand with tray, insect net, poly bags, and labels
	Expected results	Women can produce dried sweet potatoes which can be stored for a long period of time.
Salted vegetables (long period)	Objectives	To help trainees/women preserve perishable vegetables for a long period in the form of salted vegetables.
	Timeframe	<u>1st session: Washing, drying, salting, and pickling (2.0 days)</u> a. Washing, drying, and salting (1.0 day) b. Re-salting and pickling (1.0 day) <u>2nd session: Quality checking, packing and labeling (1.0 day)</u> a. Packing and labeling (1.0 day)

Appendix-5.6 Training Modules of Key Agricultural and Forestry Extension Services/Micro Programs

Training course	Items	Description
	Materials	Raw materials: mustards (mode metan) Instruments: large-sized container, big poly bag, insect net, heavy stone, poly bags, and labels
	Expected results	Women can produce quality salted vegetables using the traditional techniques with some modifications.
Salted vegetables (short period)	Objectives	To help trainees/women produce pickled vegetables using a simple techniques for a short period of time.
	Timeframe	<u>1st session: Washing, slicing, salting, and pickling (1.0 days)</u> a. Washing, removing skin & seeds, and slicing (0.5 day) b. Salting and pickling (0.5 day) <u>2nd session: Packing and labeling (1.0 day)</u> a. Packing and labeling (1.0 day) (The 2 nd session should be held 1 week after the 1 st session.)
	Materials	Raw materials: chayote, garlic, fruits, chili, salt, sugar, and water Instruments: container, drainer, cutting board, knife, rubber band, poly bags, and labels
	Expected results	Women can produce quality pickled vegetables using a simple technique.
Chips making	Objectives	To enable trainees/women to produce long-life and value-added products (flavored chips) made of local products, such as cassava and kontas.
	Timeframe	<u>1st session: Washing, peeling, slicing, and frying (1.0 day)</u> a. Selection, washing, and peeling of cassava (0.2 day) b. Slicing, pre-treatment, and drying (0.3 day) c. Frying (0.5 day) <u>2nd session: Frying, seasoning, and packing (1.0 day)</u> a. Repeating of the activities of the 1 st session (0.5 day) b. Preparation of seasoning and topping (0.1 day) c. Seasoning and topping (0.2 day) d. Packing (0.2 day)
	Materials	Raw materials: tuber crops (e.g., cassava, kontas, and sweet potato) Instruments: slicer, big frying pan, oil strainer, spread tray, poly bags/aluminum bags, and labels
	Expected results	Women can produce quality chips made of local products, such as cassava and other tubers, which can be sold at major markets in Dili.
Sewing	Objectives	To enable trainees/women to make clothes and utensils using a sewing machine.
	Timeframe	<u>1st training curse: Practice of sewing (5.0 days)</u> a. How to use a sewing machine (1.0 day) b. Practice of sewing (4.0 days) <u>2nd training course: Making of a clothes/dress (5.0 day)</u> a. How to make a dress pattern (1.0 day) b. Cutting (0.5 day) c. Sewing (3.5 days)
	Materials	Sewing machine, cloth, threads, sewing pattern, and ciseaux
	Expected results	Women can mend their clothes and/or make a dress/clothes with a sewing machine.
Promotion of products	Objectives	To enable trainees/women or a group of them to take promotion activities necessary to sell their products in Dili and other markets.
	Timeframe	<u>1st session: Development of product's information (1.0 day)</u> a. Discussion on sales points of the product (0.5 day) b. Making of an draft advertisement material (0.5 day) <u>2nd session: Participation in exhibition (2.0 day)</u> a. Discussion on the participation in an/ exhibition/s (scheduling, selection of members, and arrangements needed) (1.0 day) b. Participation in an exhibition held in Dili (1.0 day) <u>3rd session: Visit to buyers for direct promotion (2.0 day)</u> a. Preparation of advertisement materials and discussion on the visits

Appendix-5.6 Training Modules of Key Agricultural and Forestry Extension Services/Micro Programs

Training course	Items	Description
		to buyers for promotion (scheduling, selection of members, and arrangements needed) (1.0 day) b. Visit to buyers for promotion (1.0 day) <u>Negotiations with buyers (OJT)</u> a. Discussion on the negotiation price b. Visit to a/ buyer/s for negotiations
	Materials	Cardboards, papers, felt-type pens/markers, notes, and pens
	Expected results	Women are able to learn the needs/demands of major buyers so that they could identify the necessary improvements to be made in their product. At the same time, they are expected to learn the process and necessary actions to be taken for promotion of the product.
Bookkeeping	Objectives	To enable trainees/women or a group of them to keep books of account with records of costs, profits, account receivables, and stock of the product.
	Timeframe	<u>1st session: Basic knowledge of bookkeeping (2.0 days)</u> a. Basic knowledge of bookkeeping (0.5 day) b. Exercise of bookkeeping (0.5~1.0 day) c. Exercise in calculation of a balance between costs and profits (0.5~1.0 day) <u>2nd session: Cost and profit analysis (1.0 day)</u> a. Explanation of costs and profits (0.5 day) b. Explanation of how to set up the selling price (0.5 day) c. Exercise in calculation of the production cost and the selling price (1.0 day)
	Materials	Flipcharts, premade formats for exercises, hands-outs, felt-type pens, masking tapes, notes, and pens.
	Expected results	Women or a group of women can manage their earnings/savings as well as assets in a proper and transparent manner.
Micro credit using earnings from IG/LD activities	Objectives	To enable trainees/women or a group of them to decide how to use their earnings/savings gained from IG/LD activities to benefit trainees/women who engage in the activities.
	Timeframe	<u>1st session: Discussion on how to use the earnings (1.0 day)</u> a. Discussion on status of savings and major sources of income (0.25 day) b. Assessment of earnings and expenditures over the course of IG/LD activities (0.25 day) c. Calculation of necessary amount for operations of IG/LD activities (0.25 day) d. Discussion on how to use earnings/savings (0.25 day) <u>2nd session: Discussion on rules of micro credit scheme (1.0 day)</u> a. Discussion on rules of a micro credit scheme and develop a draft rules of the scheme (0.5 day) b. Introduction and explanation of forms and systems of the scheme (0.2 day) c. Selection of members of a management committee and discussion on roles and responsibilities of the members (0.3 day) <u>3rd session: Finalization of rules and by-laws of the scheme (1.0 day)</u> a. Discussion on and finalization of roles and responsibilities of the members (0.3 day) b. Finalization of the rules and by-laws of the scheme (0.7 day)
	Materials	Flipcharts, hands-outs, felt-type pens, masking tapes, notes, and pens.
	Expected results	Women or a group of them can decide how to utilize their earnings/savings in an effective and efficient manner and develop rules and by-laws of the micro credit scheme.

Source: JICA Project Team (2015)

Appendix-6.1

Assessment of the Forest Sector in Timor-Leste

Appendix-6.1 Assessment of the Forest Sector in Timor-Leste

1. Assessment of the Forest Sector Policy

1.1 Objectives of the Assessment

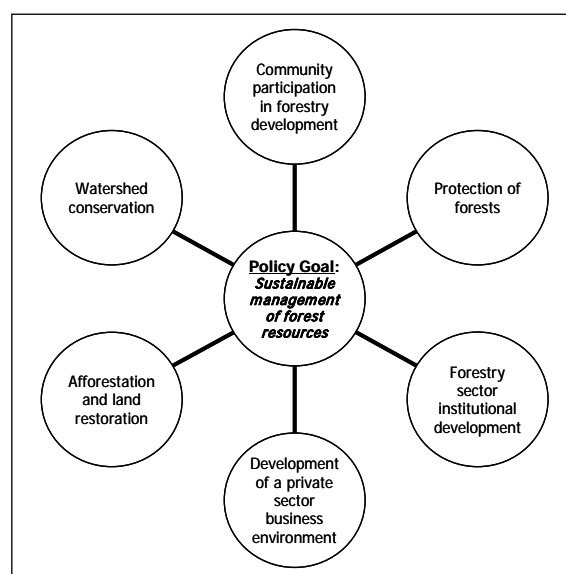
The main aim of the assessment is to analyze how CB-NRM would contribute to the achievement of the forest sector policy by checking the relevance of the activities of the JICA CB-NRM Project to the implementation of the strategies defined in the same policy.

1.2 Outlines of the Forest Sector Policy

(1) Policy Goal and Objectives of the Policy

The goal of forestry sector development is the sustainable management of forest resources and watersheds to provide environmental, social and economic benefits to the people of Timor-Leste. The policy goal is supported by the following six (6) policy objectives.

- i) Protection of Forests
- ii) Community and Private Participation in Forestry Development
- iii) Watershed Conservation
- iv) Afforestation and Land Restoration
- v) Development of a Private Sector Business Environment
- vi) Forestry Sector Institutional Development



1.3 Principal Goal and Strategies of the Policy Objectives

Each policy objective is further supported by a number of strategies for its achievement. The following sections introduce the principal goals and strategies of the respective policy objectives.

a. Protection of forest:

i) Principal Goal of the Policy Objective

The policy objective is to effectively protect the ecological integrity and biological composition of not less than 70 % of the area of forests by 2020.

ii) Strategies

No	Strategies for Protection of Forests
1	To protect all forests from damage or loss through programmes that will empower communities to manage forest lands.
2	To authorize and provide secure right to rural communities under new forest legislation to protect, afforest, restore, and utilize towards forest protection and sustainable forest management, etc.
3	To determine and legally recognize customary land and forest usage rights, customary land management approaches and customary village boundaries under Land Law 01-2003 and new forest legislation.
4	To determine priorities in the protection of forests in a participatory manner in terms of geographic locations and ecological classification.
5	To introduce specific forest protection and management initiatives with forest-dependant communities

Appendix-6.1 Assessment of the Forest Sector in Timor-Leste

No	Strategies for Protection of Forests
	based on the provisions of new forest legislation.
6	To create the legal category of protected natural areas under new forestry legislation.
7	To protect forests and protected natural areas from unlawful harvesting of wood and unauthorized grazing by livestock.
8	To provide chief de suco of villages with legal authority under new forest legislation for enforcing forest protection arrangements.
9	To establish a group of volunteer forest wardens in rural communities.
10	To raise awareness of the natural and regional importance of effective and sustainable protection of nation's forests, watersheds, and more generally of sustainable forest management and environmental conservation.
11	To strengthen the legal basis for environmental conservation through concluding multilateral environmental agreements.
12	To protect forests and other terrestrial ecosystems from damage or loss that may be caused by pests and weeds.

Source: Forest Sector Policy (2008)

b. Community and Participation in Forestry Development

i) Principal Goal of the Policy Objective

The policy objective is to achieve harmonious and effective participation of forest communities and other private sector groups in forestry development by the end of 2010. Specifically, the policy objective aims to award all forest-dependant communities the long-term land use rights by the end of 2010.

ii) Strategies

No	Strategies for Community Participation in Forestry Development
1	To award long-term land use rights (such as customary community land and forest usage rights (Tara Bandu) , customary village boundaries and land management practices) under the provisions of Land Law 01-2003 and the new forest legislation to local communities not later than the end of 2020.
2	To negotiate and conclude mutually agreeable arrangements of cooperation, participation and forest management between the government and rural communities by the end of 2020.
3	To involve communities in forestry development based on the strategy of empowering communities to undertake protection, management and other forestry responsibility rather than enforcing them to do so.
4	To recognize customary mechanisms for the resolution of land disputes between communities. (To provide legitimate and effective authority under land dispute resolution legislation and new forests legislation to enable customary land disputes to be resolved.
5	To retain the benefits of community forestry for communities who will be encouraged to invest their funds in new forest management activities and local community development.
6	To develop in consultation with the local communities, community forestry regulations under the authority of new forests legislation.
7	To ensure that community forests are not converted to other forms of land use that would be in conflict with the sustainable forest management.
8	To advise all villages not later than 2007 through notices and village meetings of the scope, provisions and implications of new forest policy as a part of an inclusive approach towards the participation of rural communities in the implementation of forest policy.
9	To demonstrate sustainable and ecological use of forest land using customary land management systems.
10	To discourage shifting cultivation of forest land by forest-dependent communities through the introduction of technically improved land and forest management practices that will lead to ecologically acceptable food production and forest conservation.
11	To develop community forestry guidelines by 2008 based on knowledge and experience gained on a pilot scale to support the wider use of this approach.
12	To document and publish customary knowledge about forest protection, dispute resolution, forest management and non-wood forest products by the end of 2008.

Source: Forest Sector Policy (2008)

c. Watershed Conservation

i) Principal Goal of the Policy Objective

The policy objective is to achieve the long-term sustainable conservation of watersheds not later than 2020 in order to maintain and enhance natural water

flows, maintain high water quality, and minimize flooding and the erosion of rocks and soils. Specifically, the emphasis shall be placed on the restoration of 10 critically degraded watersheds.

ii) Strategies

No.	Strategies for Watershed Conservation
1	To achieve effective protection of all forests, savannah woodlands and grasslands not later than 2020 from damage or loss from wildfires, shifting cultivation, unlawful logging and unlawful settlement.
2	To put emphasis in forest protection on the restoration of 10 critically degraded watersheds.
3	To determine priorities for the protection of watersheds not later than 2008.
4	To treat the deliberate lighting of fires that enganger forests and grasslands in watersheds as an offence to be punished by law under new forest legislation
5	To promote and encourage cooperation between rural communities and the government through empowerment of rural communities under provisions of new forest legislation, technical extension services, agroforestry and forest management agreements.
6	To promote ecologically realistic forest restoration and mountain closure programmes in all classes of forestland using new planting, reforestation and natural regeneration methods and economically realistic incentives.
7	To cooperate through an inter-agency working group with the relevant ministries.
8	To plan, arrange, buget and undertake research programmes of high priority watershed conservation issues that will support sustainable forestry management and poverty alleviation.

Source: Forest Sector Policy (2008)

d. Watershed Conservation

i) Principal Goal

The policy objective is to afforest and restore degraded lands to improve watersheds and coastal lines, maintain/expand wood resources, and complement agricultural and horticultural land uses. Specifically, the policy objective aims to produce 50% of the nation's sawn timber supply from locally grown forest plantations by 2040 for building construction, furniture manufacture and other uses of timber.

ii) Strategies

No.	Strategies for Afforestation and Land Restoration
1	To promote ecologically realistic programmes of afforestation through new planting, reforestation, restoration and natural regeneration.
2	To produce 50 % of the nation's timber supply for building construction, furniture manufacture and for other uses from locally grown forest plantations by 2040.
3	To undertake inventories of specific wood and non-wood forest resources, not later than 2008, in order to provide a technically useful foundation of forest resources information for realiable and effective long-term planning.
4	To provide rural communities and other stakeholders with access to markets and advice about marketing of forest products.
5	To cooperate with rural communities the forest management planning, including zoning, to determine where afforestation and related silviculture is appropriate from ecological, physical, social and economic viewpoints.
6	To promote cooperation between rural communities and the government through allocation of long-term land use management agreements and utilization rights for afforestation, utilization and other aspects of forest protection and management.
7	To promote community participation in afforestation and forest management activities.
8	To plan, arrange and budget for aforestation on land.
9	To give specific attention towards the production of sustainable supplies of fuelwood through afforestation to satisfy the high demand in Dili and other cities for domestic energy needs. - contract agreements on production of fuel wood - introduction of a system of licencing of firewood produces - introduction of energy saving woodfuel stoves - formulation of national policies for development of alternative energy sources
10	To plan, arrange, budget and undertake research programmes of high priority forest establishment, management, and forest utilization issues.

Source: Forest Sector Policy (2008)

e. Development of Private Sector Business Environment

i) Principal Goal

The policy objective is to develop and maintain the private sector-based business environment for profitable forest management, production, utilization and marketing of forest products.

ii) Strategies

No.	Strategies for Development of Private Sector Business Environment
1	To encourage private sector investment in forestry development, forest utilization, and marketing of forest resources.
2	To ensure that policies concerning private sector investment and trade do not have perverse effects on forestry development that are inimical to the achievement of sustainable forest management, forest protection, conservation and profitable forest utilization programmes.
3	To promote the efficient harvesting and profitable utilization of all types of wood and non-wood forest products through technical extension and education, financial and economic incentives.
4	To encourage forest communities to acquire the knowledge, skills, experience and confidence to manage, utilize and market forest resources as private forest owners.
5	To consider new investments in private sector forestry development under the commercial, trade and other laws that determine and regulate investment and business management in Timor-Leste.
6	To promote domestic and international trade of added-value forest products and to encourage the profitable utilization of tree species that are presently under-utilized.
7	To promote, in cooperation with the Ministry of Development, the value-added processing of commercial species by the private sector for export markets by applying the strategies set out in section 1. Exports of unprocessed logs and woods will be prohibited.
8	To promote the efficient production of locally-grown sawn timber and the profitable processing and marketing of non-wood forest products.
9	To encourage rural communities in association with the government tourism authorities, and hotel/travel industry to plan, promote, arrange, and implement eco-tourism opportunities.

Source: Forest Sector Policy (2008)

f. Forestry Sector Institutional Development

i) Principal Goal

The policy objective is to develop managerial, technical and administrative capacities of forestry sector institutions to enable them to effectively design, implement, manage, monitor, and control all the forest policy objectives and their related programmes.

b. Strategies

No.	Strategies for Development of Private Sector Business Environment
1	To develop and maintain a national forest service that will be adequately staffed with suitably trained personnel to administer this forest policy and specific forestry development programmes.
2	To provide opportunities for long term tertiary education of selected personnel in forestry and related topics at overseas universities. Specifically, to double the number of staff in NDF holding tertiary qualification in forestry and natural resources management by 2010.
3	To maintain a level of funding and investment in the sector, which is adequate to implement all the forest-related sector policies.
4	To expand technical and managerial capacities through designing, budgeting, organizing and implementing training and education programmes of Government and non-government personnel in all aspects of sustainable forest management, protection, afforestation, extension, utilization and trade.
5	To progressively train NDF staff, particularly in districts, as professional extension advisers and management support personnel who can provide technical, utilization and marketing advice to forest dependant communities in a sympathetic manner, as opposed to having the primary regulatory role of policing and licensing.
6	To encourage and apply adaptive learning methods, including through monitoring of operation activities, to ensure continual institutional development at all levels of forest management and administration. To build capacity of all stakeholders, especially rural communities, through "action-learning" activities and extension programmes in environmental protection, watershed protection, afforestation, sustainable agriculture and agroforestry.

No.	Strategies for Development of Private Sector Business Environment
7	To build on and strengthen institutional arrangements associated with customary land management practices through adaptation into governmental administrative procedures and manuals.
8	To establish effective coordination and cooperation arrangements amongst related sectors of the economy that influence the forestry sector, including international institutions and companies concerned with forestry development.
9	To ensure that the basic goals of sustainable management of forests, protection of forests and watersheds are effectively reflected in the Government's development plans and institutional structures to achieve responsive implementation of forest policies.
10	To coordinate and harmonize forestry and other sectoral policies and activities in consultation with appropriate stakeholders.

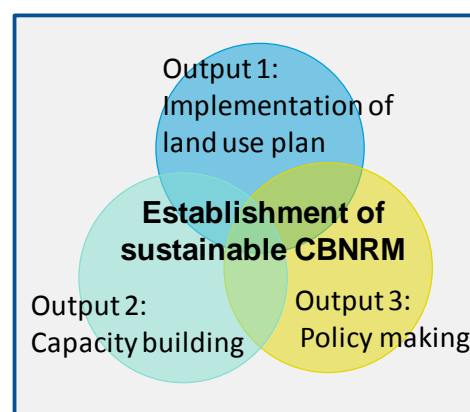
Source: Forest Sector Policy (2008)

1.4 Designed Framework of JICA CB-NRM Project

(1) Objectives and Components (Strategies)

The main objective of the JICA CB-NRM Project is that “an operational mechanism of CB-NRM at suco level is developed.” Such an objective is to be achieved through the implementation of the following components:

- Component 1: Implementation of future land use plans and village regulations along with micro projects, which would support the implementation of future land use plans, in the target villages
- Component 2: Development of capacities of the relevant stakeholders, such as the staff of NDF and the MAF District Office in Aileu, NGOs, and local communities, for promotion of CB-NRM
- Component 3: Development of procedures including a new policy document for introduction and promotion of CB-NRM in the Laclo and Comoro river basins

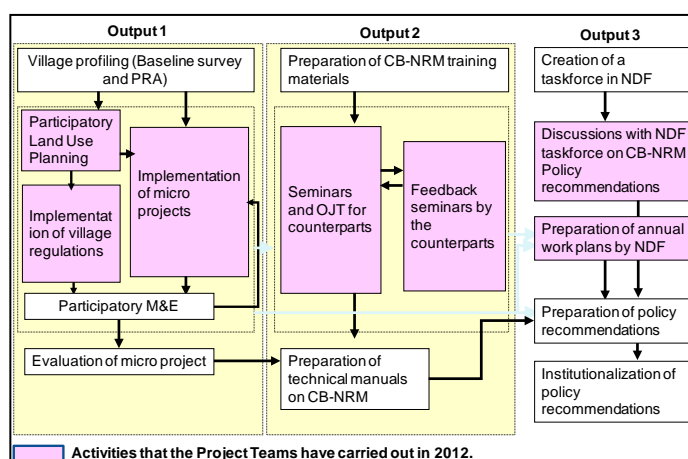


(2) Target Areas

The Laclo and Comoro river basins are the principal target areas of the Project.

(3) Major Project Activities

The major activities of the Project are outlined in the following drawing. In principle, the project aims to develop a proto-type/model of a community forest in Timor-Leste through implementation of its core activities. More details of the project activities are shown in the following table.



Major Activities of the JICA Project

Output	Major Activities
1	1-1 Assist local communities, especially village leaders, in developing future land use plans with village regulations through participatory land use planning in the villages; 1-2 Help village leaders announce, disseminate, enforce/implement, monitor and evaluate the village regulations in the village; 1-3 Introduce sustainable land management, livelihood development, and reforestation techniques to the villages; 1-4 Train local communities to enable them to apply the techniques necessary for sustainable natural resource management, such as seedling production, tree planting, sloping agriculture, agroforestry, and resource-based livelihood development; 1-5 Assist local communities, especially village leaders, in managing and protecting forests and natural resources in the villages in a sustainable manner.
2	2-1 Hold a number of training courses for the NDF and District MAF staff to enhance their capacities to apply the community-based forest and natural resource management concepts in other villages in Laclo and Comoro river basins; 2-2 Enhance the capacities of two (2) NGOs and local communities related to the target villages to develop a mechanism on sustainable community-based forest and natural resource management on a village level; 2-3 Develop manuals and procedures for the stakeholders relevant to forest and natural resource management in Timor-Leste to help them introduce the mechanism on sustainable community-based forest and natural resource management to other villages; and 2-4 Enhance the managerial capacity of the NDF staff to develop a work and budget plan with a rational explanation.
3	3-1 Hold a series of meetings with core members of NDF to discuss and analyze a new policy document necessary for introduction/promotion of community-based forest and natural resource management concepts in the target river basins; 3-2 Assist NDF in the preparation and finalization of a draft policy document on promotion of community-based forest and natural resource management; 3-3 Assist NDF in the planning, estimation, and preparation of an annual work and budget plan on promotion of community-based forest and natural resource management in the target river basin; and 3-4 Develop implementation procedures and guidelines for NDF to promote and apply community-based forest and natural resource management activities in the target river basins.

Source: JICA Project Team (2012)

1.5 Analysis of the Relationship between the Forestry Sector Policy and the JICA CBNRM Project

The results of the 3rd meeting of the working team on August 7 and 10 suggested that the introduction / promotion of CB-NRM would be effective in the achievement of the goal and policy objectives of the forestry sector policy. Hence, this sub-section evaluates how the project activities could contribute to the implementation of the strategies of the policy objectives relevant to CBNRM. The strategies under “Development of Private Sector Business Environment” are not included in the assessment since it is less relevant to CB-NRM as identified by the working team in the 3rd meeting.

The following tables show the relationship between the strategies of the policy objectives except “Development of Private Sector Business Environment” and the activities of the JICA CB-NRM Project.

Relationship between the JICA Project and the Forest Sector Policy

(1) Protection of Forest

No	Strategies	Effectiveness of CBNRM	Related activities
1	To protect all forests from damage or loss through programmes that will empower communities to manage forest lands.	Relevant/Effective	1-1, 1-2, and 1-5
2	To authorize and provide secure right to rural communities under new forest legislation to protect, afforest, restore, and utilize towards forest protection and sustainable forest management, etc.	Relevant/Effective, though there is no legal basis.	1-1, 1-2, 1-5, 2-2
3	To determine and legally recognize customary land and forest usage rights, customary land management approaches and customary village boundaries under Land Law 01-2003 and new forest legislation.	Relevant/Effective, though there is no legal basis.	1-1, 1-2, and 1-5
4	To determine priorities in the protection of forests in a	Relevant/Effective	1-1 and 1-2

Appendix-6.1 Assessment of the Forest Sector in Timor-Leste

No	Strategies	Effectiveness of CBNRM	Related activities
	participatory manner in terms of geographic locations and ecological classification.		
5	To introduce specific forest protection and management initiatives with forest-dependant communities based on the provisions of new forest legislation.	Relevant/Effective	1-1, 1-2, and 1-3
6	To create the legal category of protected natural areas under new forestry legislation.	Not relevant/effective	-
7	To protect forests and protected natural areas from unlawful harvesting of wood and unauthorized grazing by livestock.	Relevant/Effective	1-1, 1-2, 1-5, and 2-2
8	To provide chief de suco of villages with legal authority under new forest legislation for enforcing forest protection arrangements.	Relevant/Effective, though there is no legal basis.	1-1, 1-2, 1-5, and 2-2
9	To establish a group of volunteer forest wardens in rural communities.	Slightly relevant/effective, but legal support from new forest legislation is needed.	1-1, 1-2, and 1-5
10	To raise awareness of the natural and regional importance of effective and sustainable protection of nation's forests, watersheds, and more generally of sustainable forest management and environmental conservation.	Fairly relevant/effectives	1-1 and 1-2
11	To strengthen the legal basis for environmental conservation through concluding multilateral environmental agreements.	Not relevant/effective	-
12	To protect forests and other terrestrial ecosystems from damage or loss that may be caused by pests and weeds.	Not relevant/effective	-

Source: JICA Project Team (2012)

(2) Community and Private Participation in Forestry Development

No	Strategies	Effectiveness of CBNRM	Related activities
1	To award long-term land use rights (e.g., customary community land and forest usage rights, customary village boundaries and land management practices) under the provisions of Land Law 01-2003 and the new forest legislation to local communities not later than the end of 2020.	Relevant/Effective, though there is no legal basis.	1-1, 1-2, and 1-5
2	To negotiate and conclude mutually agreeable arrangements of cooperation, participation and forest management between the government and rural communities by the end of 2020.	Relevant/Effective, though there is no legal basis.	1-1, 1-2, and 1-5
3	To involve communities in forestry development based on the strategy of empowering communities to undertake protection, management and other forestry responsibility rather than enforcing them to do so.	Relevant/Effective	1-1, 1-2, 1-3, 1-5, and 2-2
4	To recognize customary mechanisms for the resolution of land disputes between communities. (To provide legitimate and effective authority under land dispute resolution legislation and new forests legislation to enable customary land disputes to be resolved.	Relevant/Effective	1-1, 1-2, and 1-5
5	To retain the benefits of community forestry for communities who will be encouraged to invest their funds in new forest management activities and local community development.	Slightly relevant/effective	1-1, 1-3, and 2-2
6	To develop in consultation with the local communities, community forestry regulations under the authority of new forests legislation.	Relevant/Effective	1-1, 1-2, and 1-5
7	To ensure that community forests are not converted to other forms of land use that would be in conflict with the sustainable forest management.	Relevant/Effective	1-1, 1-2, and 1-5
8	To advise all villages not later than 2007 through notices and village meetings of the scope, provisions and implications of new forest policy as a part of an inclusive approach towards the participation of rural communities in the implementation of forest policy.	Not relevant/effective	-
9	To demonstrate sustainable and ecological use of forest land using customary land management systems.	Relevant/Effective	1-1, 1-2, 1-5, and 2-2
10	To discourage shifting cultivation of forest land by forest-dependant communities through the introduction of technically improved land and forest management practices that will lead to ecologically acceptable food production and forest	Relevant/Effective	1-1, 1-2, 1-3, 1-5, and 2-2

Appendix-6.1 Assessment of the Forest Sector in Timor-Leste

No	Strategies	Effectiveness of CBNRM	Related activities
	conservation.		
11	To develop community forestry guidelines by 2008 based on knowledge and experience gained on a pilot scale to support the wider use of this approach.	Slightly relevant/effective	3-1, 3-2, and 3-4
12	To document and publish customary knowledge about forest protection, dispute resolution, forest management and non-wood forest products by the end of 2008.	Effective	1-1, 1-2, and 1-5

Source: JICA Project Team (2012)

(3) Watershed Conservation

No	Strategies	Effectiveness of CBNRM	Related activities
1	To achieve effective protection of all forests, savannah woodlands and grasslands not later than 2020 from damage or loss from wildfires, shifting cultivation, unlawful logging and unlawful settlement.	Fairly relevant/effective, as the scale of the project is limited.	1-1, 1-2, 1-5, and 2-2
2	To put emphasis in forest protection on the restoration of 10 critically degraded watersheds.	Slightly relevant/effective, as the scale of the project is limited.	1-1, 1-2, and 1-3
3	To determine priorities for the protection of watersheds not later than 2008.	Slightly relevant/effective, as the project already focuses on two critical watersheds.	1-1, 1-2, and 1-5
4	To treat the deliberate lighting of fires that enganger forests and grasslands in watersheds as an offence to be punished by law under new forest legislation	Relevant/Effective	1-1, 1-2, 1-5, and 2-2
5	To promote and encourage cooperation between rural communities and the government through empowerment of rural communities under provisions of new forest legislation, technical extension services, agroforestry and forest management agreements.	Relevant/Effective, though there is no legal basis.	1-1, 1-2, 1-5, and 2-2
6	To promote ecologically realistic forest restoration and mountain closure programmes in all classes of forestland using new planting, reforestation and natural regeneration methods and economically realistic incentives.	Fairly relevant/effective, as the scale of the project is limited.	1-3
7	To cooperate through an inter-agency working group with the relevant ministries.	Not relevant/effective	-
8	To plan, arrange, budget and undertake research programmes of high priority watershed conservation issues that will support sustainable forestry management and poverty alleviation.	Not relevant/effective	-

Source: JICA Project Team (2012)

(4) Afforestation and Land Restoration

No	Strategies	Effectiveness of CBNRM	Related activities
1	To promote ecologically realistic programmes of afforestation through new planting, reforestation, restoration and natural regeneration.	Fairly relevant/effective, as the scale of the project is limited.	1-3
2	To produce 50 % of the nation's timber supply for building construction, furniture manufacture and for other uses from locally grown forest plantations by 2040.	Slightly relevant/effective, as the scale of the project is limited.	1-3
3	To undertake inventories of specific wood and non-wood forest resources, not later than 2008, in order to provide a technically useful foundation of forest resources information for reliable and effective long-term planning.	Not relevant/effective	-
4	To provide rural communities and other stakeholders with access to markets and advice about marketing of forest products.	Not relevant/effective	-
5	To cooperate with rural communities the forest management planning, including zoning, to determine where afforestation and related silviculture is appropriate from ecological, physical, social and economic viewpoints.	Slightly relevant/effective, as the reforestation program is not necessarily coordinated with the future land use plan.	1-1 and 1-3
6	To promote cooperation between rural communities and the government through allocation of long-term land use management agreements and utilization rights for afforestation,	Relevant/Effective	1-1, 1-2, 1-5, 2-2

Appendix-6.1 Assessment of the Forest Sector in Timor-Leste

No	Strategies	Effectiveness of CBNRM	Related activities
	utilization and other aspects of forest protection and management.		
7	To promote community participation in afforestation and forest management activities.	Relevant/Effective	1-3
8	To plan, arrange and budget for afforestation on land.	Relevant/Effective	1-3, 2-2, 2-4, and 3-3
9	To give specific attention towards the production of sustainable supplies of fuelwood through afforestation to satisfy the high demand in Dili and other cities for domestic energy needs. - contract agreements on production of fuel wood - introduction of a system of licencing of firewood produces - introduction of energy saving woodfuel stoves - formulation of national policies for development of alternative energy sources	Not relevant/effective	-
10	To plan, arrange, budget and undertake research programmes of high priority forest establishment, management, and forest utilization issues.	Not relevant/effective	-

Source: JICA Project Team (2012)

(5) Forestry Sector Institutional Development

No	Strategies	Effectiveness of CBNRM	Related activities
1	To develop and maintain a national forest service that will be adequately staffed with suitably trained personnel to administer this forest policy and specific forestry development programmes.	Not relevant/effective	-
2	To provide opportunities for long term tertiary education of selected personnel in forestry and related topics at overseas universities. Specifically, to double the number of staff in NDF holding tertiary qualification in forestry and natural resources management by 2010.	Not relevant/effective	-
3	To maintain a level of funding and investment in the sector, which is adequate to implement all the forest-related sector policies.	Not relevant/effective	-
4	To expand technical and managerial capacities through designing, budgeting, organizing and implementing training and education programmes of Government and non-government personnel in all aspects of sustainable forest management, protection, afforestation, extension, utilization and trade.	Fairly relevant/effective, the scale of the project is limited.	2-2, 2-3, and 2-4
5	To progressively train NDF staff, particularly in districts, as professional extension advisers and management support personnel who can provide technical, utilization and marketing advice to forest dependant communities in a sympathetic manner, as opposed to having the primary regulatory role of policing and licencing.	Fairly relevant/effective, the scale of the project is limited.	2-2 and 2-3
6	To encourage and apply adaptive learning methods, including through monitoring of operation activities, to ensure continual institutional development at all levels of forest management and administration. To build capacity of all stakeholders, especially rural communities, through "action-learning" activities and extension programmes in environmental protection, watershed protection, afforestation, sustainable agriculture and agroforestry.	Not relevant/effective	-
7	To build on and strengthen institutional arrangements associated with customary land management practices through adaptation into governmental administrative procedures and manuals.	Relevant/Effective	2-3, 3-2, and 3-4
8	To establish effective coordination and cooperation arrangements amongst related sectors of the economy that influence the forestry sector, including international institutions and companies concerned with forestry development.	Not relevant/effective	-
9	To ensure that the basic goals of sustainable management of forests, protection of forests and watersheds are effectively reflected in the Government's development plans and institutional structures to achieve responsive implementation of forest policies.	Relevant/Effective	3-1, 3-2, and 3-4
10	To coordinate and harmonize forestry and other sectoral	Fairly relevant/effective	3-2 and 3-4

No	Strategies	Effectiveness of CBNRM	Related activities
	policies and activities in consultation with appropriate stakeholders.		

Source: JICA Project Team (2012)

The results of the assessment suggested that the Project would contribute to the implementation of the strategies enumerated in the policy objectives of the forest sector policy except “Development of Private Sector Business Environment.”

2. Analysis of the Forest Management Bill (2008)

2.1 Background

The forest management bill was drafted/prepared in 2008 with the assistance of FAO. Although the bill was already submitted to the parliament, it has yet to be approved. The bill clearly states that the rights to access, use and manage forest resources can be granted to communities provided that they can exchange an agreement with NDF on forest management. This section analyze how the CB-NRM Project could contribute to the implementation of the bill assuming it would be enacted.

2.2 Composition of the Bill

The bill is composed of 14 chapters or 95 articles.

2.3 Important Chapters and Articles of the Bill

The following chapters and articles are relevant to CB-NRM and should be taken into account in the preparation of a new policy document on CB-NRM.

(1) Chapter 4: Forest Area Demarcation, Inventories, and Management Plan

Article 28 Demarcation of Forest Areas

The forest areas of TL shall be classified into the following categories:

- (1) State forest: Any forest area growing naturally or planted on land owned by the State*
- (2) Community forest: forests described in a Community-Forest Management Agreement*
- (3) Private forest: Any forest area growing or planted on non-State land that is privately owned in accordance with the relevant land legislation.*

Comment by the JICA Project Team: Community Forest Management Agreement is a written document used for the recording and granting of forest resource access, use and management rights to communities. It takes the form of a binding legal agreement between the National Directorate of Forestry and a community. The agreement can be in a draft, interim, long-term or permanent form depending on status of formal approval from the National Directorate, registration of community land property rights, and the classification of forest areas.

National Director, or his delegate, may declare any State forest area to be a community forest and grant forest resource access and use rights through an Interim or Long Term Forest Management Agreement.

Comment by the JICA Project Team: Communities can use and manage forest resources even in state forest area as long as Community Forest Management Agreement is granted.

- (2) Chapter 5: Forest Resource Ownership Rights and Chapter 6: Community Rights and Responsibilities

Article 35 *Public trusteeship of forest resources*

1. *The State shall hold in trust all forest resources on behalf of the people of the Democratic Republic of Timor-Leste.*
2. *The State shall hold in public trust all forest land and related resources not otherwise privately owned by communities, families, individuals or other legal entities.*

Article 41 *Community Rules and Procedures*

1. *Communities that claim access, use and management rights to forest areas shall:*
 - (1) *establish their rules and procedures concerning access and use;*
 - (2) *formulate and enforce their own rules and procedures for dispute resolution consistent with local traditions and the tenets of Tara Bandu; and*
 - (3) *enforce all laws, regulations, guidelines and community rules or procedures governing access to and use of the forest resources.*
2. *Local rules and procedures shall be registered with the Ministry of State pursuant to any laws, regulations or guidelines governing local authorities.*
3. *Local rules and procedures shall be incorporated into Community Forestry Management Agreements where applicable.*

Comment by the JICA Project Team: Although the forest land would be hold in trust by the state, communities could claim access, use and management rights to forest areas by exchanging Community Forest Management Agreement with the National Directorate.

Community Forest Management Agreement shall include i) the rules and procedures concerning access and use, ii) the rules and procedures for dispute resolution, and ii) the regulations, guidelines and community rules or procedures governing access to and use of the forest resources.

Article 42 *Community Responsibilities*

Communities have the following forest resource use obligations:

1. *to manage forest areas sustainably;*
2. *to comply with the terms and conditions of any forest resource use rights granted pursuant to the Decree;*
3. *to prevent forested areas to other use without approval from the government.*

Article 44 *Community Forest Resource Use Rights*

1. *Community forest resource access and use rights shall be allocated and managed pursuant to the procedures, terms and conditions for Community Forest Management Agreements.*
2. *NDF may award interim, long-term, or permanent forest resource access and use rights to communities by formally entering into Community Forest Management Agreements.*
3. *Community forest access and use rights shall be consistent with any relevant land property rights registered with the Ministry of Justice.*
4. *If community land property rights have not been registered, then the forest resource access and use rights included in a draft or interim Community Forest Management Agreement shall recognized customary community land and forest resource access and use rights, including where applicable the tenets of Tara Bandu.*

Comment by the JICA Project Team: NDF would be the authorized government organization to grant the resource access, use, and management rights to forests by exchanging Community Forest Management Agreement.

Under Community Forest Management Agreement, communities would be obliged to manage forest areas sustainably, comply and enforce the rules and regulations defined by Community Forest Management Agreement, and prevent forests from being converted into other uses.

Chapter 7 Allocation Procedures for Community Forest Resource Use Rights

Article 52 Consultation Requirement

Forest resource access, use and management rights shall be recognized through a process of open and transparent consultation with those communities, families, individuals or other legal persons whose rights are or may be affected by such determinations.

Comment by the JICA Project Team: The rules and regulations in Community Forest Management Agreement should be openly discussed and recognized by all communities in the village.

Article 53 Use of Community Forest Management Agreements

The process of drafting and entering into Community Forest Management Agreements shall be used for the allocation and recognition of community forest resource access, use and management rights.

Article 54 Community Forest Management Agreement Assistance

1. *All relevant Local Authorities, Forest Guardians, Forest Officials at the National, Regional and District levels, and other Government Authorities shall have the responsibility to assist communities in the drafting and implementation of Community Forest Management Agreements.*

2. *Other entities may assist communities in the drafting and implementation of Community Forest Management Agreements, including, but not limited to, civil society organizations, local and international non-government organizations (NGOs), bi-lateral and multi-lateral donor organizations, individual experts, and members of the private sector.*

Comment by the JICA Project Team: NDF should assist communities in the preparation of regulations and procedures governing access, use and management of forest resources with or without the assistance from any other organizations.

Article 55 Terms and Conditions of Community Forest Management Agreements

All Community Forest Management Agreements shall:

1. *be issued in a fair and transparent manner that complements traditionally agreed forms of access and use, and incorporating principals of Tara Bandu;*
2. *consider the rights of access and use of all relevant communities, individuals and other legal entities;*
3. *be consistent with any applicable national, regional, or district forest management plans;*
4. *identify accurately the forest areas and resources that are included in or effected by the rights granted;*
5. *include a map at a scale of at least 1:25,000;*
6. *specify the nature of the access, use and management rights granted to the communities;*
7. *specify the families, groups, or individuals within the community that are included in the Community Forestry Management Agreement;*
8. *identify the individual/s from the community who are responsible for representing the community for the purpose of signing Community Forest Management Agreement;*
9. *include the rules and procedures concerning access and use;*
10. *include relevant information relating to inter-community agreements;*
11. *describe the management objectives for the forest areas and resources in the Community Forest Management Agreement;*
12. *include sustainable harvesting arrangements or plans for the forest resources;*
13. *include any protection or conservation arrangements;*
14. *include benefit sharing mechanisms;*
15. *describe the roles and functions of all relevant Local Authorities, Forest Guardians, Forest Officials.*

Comment by the JICA Project Team: Community Forest Management Agreement should include: i) regulations governing access, use, and management of forests, ii) map at a scale of at least 1: 25,000, iii) type and nature of use rights, iv) communities to whom the rights are granted, v) management target of the respective forest areas, vi) a harvesting plan, vii) a conservation plan, viii) benefit sharing systems, and ix) roles and responsibilities of the stakeholders.

2.4 Conclusion

(1) General

The forest management bill proposes to allocate forest access, use and management rights to local communities on the condition that local communities get into an agreement on sustainable use and management of forest resources in their localities. The JICA Project Team believes that it is a realistic approach to the achievement of sustainable management of forest resources in the country considering the current circumstances of MAF/NDF, where there has been no legal basis to protect forest resources since its independence; the capacity of MAF/NDF to regulate exploiting activities is still limited; and no systematic land registration system is put in place.

In other words, “Community Forestry”/“Community-Based Forest Management,” or “CB-NRM” in a broad sense, shall be a key approach to protection and management of forest resources in Timor-Leste even before the bill is enacted.

(2) Relationship to the JICA's CBNRM Approach

Participatory Land Use Planning (PLUP) introduced and demonstrated by the JICA Project could be a principle approach to the achievement of sustainable CB-NRM in the target river basins, as it helps local communities develop a future land use plan along with rules and regulations on the use and management of forest resources. Through the process of PLUP, local communities could: i) assess forest and forest-related resources in the village; ii) discuss how to use, manage and protect forest and forest-related resources in the village; iii) determine land and forest management targets considering the objectives and functions of forests; iv) prepare present and future land use maps at a scale of about 1:10,000; and iv) develop rules and regulations on forest management through reviewing the traditional rules used in the Portuguese era.

As the process of PLUP and the outputs made through the process cover most of the terms and conditions required for Community Forest Management Agreement in the bill, PLUP is considered as the core activities when the bill is enacted in the future.

