

Democratic Republic of Timor-Leste
National Directorate of Forest Management (NDF)
Ministry of Agriculture and Fisheries (MAF)
Government of the Democratic Republic of Timor-Leste

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

Project Completion Report

January 2016

Japan International Cooperation Agency (JICA)

NIPPON KOEI CO., LTD.

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Chapter 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. In 2008, the Government of Timor-Leste (GoTL) issued the Forest Sector Policy to promote sustainable forest management in the country. Although the policy was in place, it is still difficult for the Ministry of Agriculture and Fisheries (MAF), particularly the National Directorate of Forestry (NDF), to take the necessary actions proposed in the policy due to the insufficient institutional set-ups and lack of human resources.

Under such circumstances, the GoTL and the Japan International Cooperation Agency (JICA) agreed to jointly implement a technical cooperation project named “The Project for Community-Based Sustainable Natural Resource Management” to assist MAF/NDF in the establishment of an operational mechanism for community-based sustainable natural resource management (CB-NRM) in 2010. JICA and MAF have implemented the Project from January 2011 to December 2015. This is the Project Completion Report describing all the activities done and results made by the Project during the project period.

1.2 Outline of the Project

(1) Objectives of the Project

The project purpose (or the main objective of the Project) agreed upon by MAF and JICA is that “an operational mechanism¹ of CB-NRM at suco level is developed.” The project purpose is to be supported by three (3) outputs:

- Output 1: Land use plans are agreed upon and implemented by local residents in accordance with relevant suco regulations;
- Output 2: Capacities of the staff of the implementing agency and relevant stakeholders² are enhanced to support CB-NRM; and
- Output 3: Effective processes with roles of stakeholders to support CB-NRM are identified.

(2) Targets of the Project

Overall, the Project targets the Laclo and Comoro river basins; however each project output focuses its activities on the different targets as shown below.

- a. The activities for Output 1 have been carried out in six (6) sucos in the Noru and Bemos sub-watersheds in the Laclo and Comoro river basins, respectively.
- b. The capacity development activities for Output 2 are to be carried out for the staff of MAF, especially those assigned as the counterparts for the Project.
- c. The policy recommendations to be drafted under Output 3 are to be basically applicable to the Laclo and Comoro river basins, although it might be useful for other areas in the country when feasible.

¹ Operational mechanism is embodied in the endorsed and practiced guidelines/manuals on the process with roles of stakeholders to support CB-NRM, technical manuals on CB-NRM, and the policy recommendations.

² Personnel of relevant national directorates of Ministry of Agriculture and Fisheries (MAF), district directorates of MAF in the target area and other facilitating agencies, such as NGOs working in the target area.

(3) Project Period

The Project has been implemented over 60 months from January 2011 to December 2015.

(4) Institutional Framework for Implementation of the Project

The Project has been implemented jointly by JICA and MAF. From MAF side, the National Directorate of Forestry (NDF), which split into the National Directorate of Forest and Watershed Management (NDFWM) and the National Directorate of Nature Conservation³ in 2014, was responsible for implementation of the Project among the national directorates of MAF. On the other hand, the JICA Project Team entrusted by JICA has borne the responsibility to carry out the project activities.

Chapter 2 Overview of the Project

2.1 Overall Work Plan

The Project has been implemented in accordance with the plan of operations (PO) of the Project agreed upon and approved by the Joint Coordination Committee (JCC) organized by JICA and MAF.

2.2 Changes in the Project Design

There have been some changes in the project design to cope with changes in the situations and ensure the achievement of the project purpose over the course of the Project. The first major revision was made in March 2012 when the Project had the mid-term evaluation. It was further revised in May/June 2014 when JICA and MAF decided to establish a watershed management council of the Noru watershed.

2.3 Progress of the Works

The JICA and MAF Project Teams have monitored the progress of the Project over the course of the Project by using the latest PO. In general, the Project has been implemented according to the schedule.

Chapter 3 Results of the Activities under Output 1

3.1 Village Profiling

In January 2011, the JICA and MAF Project Teams selected the following six (6) sucos as the target villages by evaluating the potential sucos located in the Noru and Bemos sub-watersheds.

<u>Noru Sub-watershed :</u>	Suco Faturasa, Suco Fadabloco, and Suco Hautoho
<u>Bemos Sub-watershed:</u>	Suco Tohumeta, Suco Madabeno, Suco Talitu

In February 2011, the JICA and MAF Project Teams jointly held the consultation meetings at the target sucos to consult with local communities in the sucos about their willingness to participate in the Project. In general, local communities in the target sucos accepted the ideas of the Project and showed their willingness to participate in the project activities.

3.1.3 Village Profiling Survey (Baseline Survey and PRA) in the Target Sucos

³ NDF was divided into two (2) national directorates, namely National Directorate of Forest and Watershed Management and National Directorate of Nature Conservation, in October 2014, when the Ministry of Agriculture and Fisheries was restructured.

A village profile survey was carried out by two NGOs, USC Canada-Timor Leste, which was renamed RAEBIA in 2014, and Halarae Foundation, in 2011. The village profile survey was composed of two (2) parts, the baseline survey aimed at the collection of socio-economic baseline data of the target sucos and PRA which focused on the collection of data and information of natural resource management and potential of income generation in the sucos. The characteristics of the target sucos based on the results of the survey are summarized below.

Summary of Characteristics of the Target Sucos

Suco	Faturasa	Fadabloco	Hautoho	Madabeno	Talitu	Tohumeta
1. General Features						
1.1 No. of Sub-villages (Aldeia)	4	4	3	3	6	4
1.2 Area (km ²) <1	48.22	17.64	15.22	7.67	11.54	22.82
1.3 Population in 2014 <2	1,220	1,600	600	813	572	1,327
1.4 Household in 2014 <2	244	320	120	160	335	228
1.5 Distance from Dili (Driving hrs)	3 hours	2 hours	2 hours	1 hour	1.5 hours	1 hour
1.6 Food shortage period	Nov.-Feb.	Oct.-Feb.	Nov.-Feb.	Oct.-Feb.	Oct.-Feb.	Jan.-Feb.
2. Agricultural Condition						
2.1 Average Land holding size (ha/HH)						
- Permanent farm	2.0	1.9	0.9	0.7	1.2	0.5
- Coffee plantation	0.7	1.5	1.4	1.4	1.7	0.5
- Area for shifting cultivation	0.03	N.A.	N.A.	0.4	1.5	1.1
2.2 Major crops grown in the area	Maize, cassava, sweet potato, beans, and orange			Maize, cassava, beans, coffee	Maize, cassava, coffee, clove	Maize, cassava, vegetables, coffee
2.3 Average yields of crops (ton/ha)						
- Maize	0.5	0.5	0.5	0.4	0.2	0.1
- Cassav	0.5	0.4	0.6	0.3	0.4	0.4
- Sweet potato	0.4	0.3	0.5	0.3	0.3	0.1
- Coffee	0.2	0.2	0.2	0.4	0.2	0.1
- Vegetables	-	-	-	-	-	0.2
2.4 Ratio of household who own animals (%)						
- Cattle	45	33	22	40	15	25
- Goat	70	73	52	60	47	55
- Pig	100	95	93	70	77	88
3. Natural Resource Management						
3.1 Use of firewood						
- Ratio of household	100%	100%	100%	100%	100%	100%
- Frequency of collection (times/wk)	3	3	3	4	4	2
- Volume of collection (bundle/time)	3.6	2.9	4.4	2.5	2.5	2.4
3.2 NTFPs	Honey, Bamboo	Bamboo	Bamboo	Bamboo	Tua mutin	Tua mutin

Note: <1 Data are from ALGIS.

<2 Data are updated by the statistic data in 2014.

Source: JICA Project Team (2015)








3.2 Participatory Land Use Planning

After the village profile survey, the same NGOs hired by the JICA Project Team carried out the participatory land use planning (PLUP) activities with technical assistance of the JICA Project Team in 2011 and 2012 to help village leaders and communities in the target sucos develop future land use plans and village regulations in a participatory manner.

Activities carried out in the Course of PLUP

Activity	Results
Organization of a working group	Each village organized a working group composed of 20~25 persons including the members of suco council, elders, and other key informants in the sucos.
Exposure visit	Prior to the conducts of the PLUP activities in the sucos, the members of the working groups of the target sucos were taken to the village where the village regulations had been already in place so that the members could get a clear picture of the process and results of the PLUP activities through dialogues with village leaders in the host village.



Activity	Results	
Present land use mapping	The working groups except that of Suco Faturasa made present land use maps of the sucos with the assistance of the NGOs and JICA Project Team.	
Future land use planning	The working groups discussed how to use and manage the lands in the sucos with the assistance of the NGOs and JICA Project Team. In the meetings, the working groups decided to: i) protect the existing dense forests; ii) improve/rehabilitate the degraded forests; iii) use the severely degraded forests for production purposes; and iv) convert the existing shifting cultivation areas into coffee plantations, orchards, and permanent farms with soil conservation/agroforest techniques.	
Review of the customary rules/ existing village rules	Each working group had a one-day meeting to review and evaluate the past and current rules in the suco. They also assessed the effectiveness of the customary /existing rules as well as necessary revision to be made in the customary/existing village rules.	
Discussions on the village regulations	Based on the discussions made in the future land use planning and review of the customary/existing village rules in the sucos, the JICA Project Team prepared the draft village regulations of the target sucos in advance of the meetings. The working groups had discussions on the village regulations based on the draft ones prepared by the JICA Project Team.	
Review of the draft village regulations to village leaders	Having revised the draft village regulations based on the results of the discussions, the NGOs made a presentation of the draft village regulations to the working groups and helped the members of the working groups check if there was no discrepancy between the revised one and their ideas. After the meetings, the JICA Project Team further revised the village regulations based on the comments and suggestions given by the members.	
g. Consultations with other communities at the aldeia level	The working groups with the assistance of the NGOs held consultation meetings at the aldeia level and explained the draft village regulations with future land use plans to local communities in the respective sucos.	
Finalization of the village regulations	The JICA Project Team and the NGOs finalized the village regulations of the target sucos based on the discussions in the consultation meetings with local communities.	
Tara Bandu ceremonies at the target villages	In order to publicly announce the village regulations and future land use plans to local communities in and around the sucos, each target suco held the Tara Bandu ceremony.	

Source: JICA Project Team (2015)

3.3 Implementation of the Village Regulations





Although the village regulations were put in place in the target sucos after the Tara Bandu ceremony, it was still difficult for village leaders of the target villages to govern the sucos using the village regulations. There was a need to familiarize them with the village regulations and enhance their understanding of the village regulations among not only village leaders but also other local communities in the target sucos. The NGOs have helped village leaders hold the following meetings on a regular basis to enable them to use the village regulations to solve/settle issues happening in the villages.

- i) Monthly monitoring meeting at the suco level
- ii) Bi-monthly or quarterly information sharing meeting at the aldeia level

3.4 Selection of Priority Micro Programs

After PLUP, village leaders and other communities had the following consecutive workshops/meetings with the assistance of the NGOs and JICA Project Team to select and prioritize the potential micro programs suitable in the local settings of the target sucos.

Workshops for Selection of Micro Programs

Workshop	Activities	
1 st Workshop	<ul style="list-style-type: none"> - Explain the objectives and process of micro programs. - Present potential micro programs that can be implemented. - Hold separate meetings with male and female participants.. - Help the participants short-list the potential micro programs. 	
2 nd Workshop	<ul style="list-style-type: none"> - Explain the evaluation criteria for selection of micro programs to the participants. - Assist the participants in the evaluation of the short-listed micro programs using the evaluation criteria. - Assist them in the selection of one or two priority micro program/s. 	
Consultation meetings	<ul style="list-style-type: none"> - Assist village leaders in explaining the process that they have taken for selection of the priority micro program/s. - Facilitate their discussions among communities to enable them to deepen their understanding of the priority micro program/s. 	
3 rd Workshop	<ul style="list-style-type: none"> - Discuss the provisional scope/s of the priority micro program/s as well as roles and responsibilities of key stakeholders in the implementation of the micro program/s. 	

Source: JICA Project Team (2015)

Through a series of the meetings, the target villages selected the following programs.

Suco Faturasa

- i) Sustainable Upland Farming Promotion with Community-Based Seed Extension Micro Program (SUFP with CBSE-MP)

Sucos Fadabloco and Hautoho

- i) Sustainable Upland Farming Promotion with Community-Based Seed Extension Micro Program (SUFP with CBSE-MP)
- ii) Income Generating/Livelihood Development Micro Program (IG/LD-MP)

Sucos Talitu and Madabeno

- i) Seedling Production and Tree Planting Promotion Micro Program (SPTPP-MP)
- ii) Sustainable Upland Farming Promotion Micro Program (SUFP-MP)

Suco Tohumeta

- i) Sustainable Utilization of Backyard/Permanent Farm Micro Program (SUB/PF-MP)

3.5 Implementation of the Micro Programs in the Target Village

The micro programs had been implemented in a phased manners in consideration of the NGOs' capacity; therefore, the target sucos were divided into two (2) groups: Batch 1, in which the micro programs started in the 1st quarter of 2012, and Batch 2, where the micro programs began one year after those of batch 1 (in the 1st quarter of 2013). The overall implementation schedule of the micro programs in the target sucos is shown below.

Batch	Suco	2012				2013				2014				2015			
		1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q		
Batch 1	Faturasa, Fadabloco, Talitu & Madabeno	[Implementation period from 1st Q 2012 to 4th Q 2014]															
Batch 2	Hautoho & Tohumeta					[Implementation period from 1st Q 2013 to 4th Q 2014]											

Source: JICA Project Team (2015)

Each micro program comprised two (2) cycles of Farmers Field Schools (FFSs)/hands-on training courses, which introduced all the techniques relevant to the micro programs. The major activities commonly carried out in the micro programs are shown below.








- i) Preparatory works in the 1st year
- ii) 1st year FFSs and technical assistance
- iii) Participatory evaluation and planning of an annual work plan
- iv) Preparatory works in the 2nd year
- v) 2nd year FFSs and technical assistance
- vi) Participatory evaluation and planning of an annual work plan













Moreover, SUFP-MP/SUFP with CBSE-MP/SUB/PF-MP employed a two-step extension approach to disseminate key techniques of the micro programs to the majority of the members. In the 2nd year, the beneficiaries' groups further formed several sub-groups under the groups by dividing their members based on the locations of farms or houses and conducted one cycle of FFSs/hands-on training on selected key techniques at one of the members' plots (which were called the "sub-group demonstration plot"). The strategy behind the approach was to encourage the members to help each other apply key techniques to their own farms according to the customary collective working system or mutual aid system in the sucos.

3.5.1 Results of the First (1st) Batch Sucos

The results of the activities carried out in the first batch sucos are summarized below.

Summary of the Preparatory Works

Year	Stage	Major Activities	Results	
1 st year	Preparatory works	Organization of the beneficiaries' groups	A total of 24 beneficiaries'/women groups composed of 807 members were formed for the micro programs in January 2012.	
		Exposure visits/study tours for the beneficiaries'/women groups	In February 2012, a total of 247 members of the beneficiaries'/women groups of the micro programs participated in the exposure visits/study tours to sucos where similar activities had been carried out so that core member could have a clear picture of the micro programs.	
		Preparation of work plans of the micro programs	Overall work plans of the respective micro programs were discussed and prepared by the beneficiaries'/women groups in the meetings held with the participation of 266 members in March 2012.	
1 st FFSs and technical assistance	FFSs/hands-on training courses for SUFP with CBSE-MP in Sucos Faturasa and Fadabloco	<ul style="list-style-type: none"> ◆ A total of 10 demonstration plots were developed by the beneficiaries' groups in Sucos Faturasa and Fadabloco. ◆ A series of FFSs/training sessions covering the following topics had been held at each demonstration plot in both sucos from June 2012 to March 2013. <ul style="list-style-type: none"> - Compost making - Delineation of contour lines - Application of soil conservation measures - Cultivation and application of compost - Seed selection and sowing of seeds - Making of liquid fertilizer - Farm management (weeding, application of liquid fertilizer, and fixing of terraces) - Planting of other upland crops - Harvesting and post-harvesting ◆ The beneficiaries' groups produced improved varieties of maize, peanut, sweet potato, and cassava in the demonstration plots. The average productivity of the improved maize planted in the plots was about 200:1 (production : seeds), which was significantly higher than the national average yield of maize (about 30:1 to 50:1) 	   	

Year	Stage	Major Activities	Results					
1 st year	1 st FFSs and technical assistance	Hands-on training courses for IG/LD-MP in Suco Fadabloco	<ul style="list-style-type: none"> ◆ The women groups identified and selected the following income generating/livelihood development activities as potentially promising options after assessment of natural and social resources available in the localities. <ul style="list-style-type: none"> - Dried sweet potato production - Herb tea production - Salted vegetable production - Clothes making and bag making by sewing machine ◆ The NGO had arranged and held a total of 35 training sessions on the above-listed topics from May 2012 to February 2013. Another one day session on chips making was held by the NGO with the assistance of the Japanese NGO (PARCIC). ◆ The NGO also tried to enhance members' knowledge and skills on marketing and business management by providing the following opportunities to members. <ul style="list-style-type: none"> - Participation in the exhibitions - Lecture on marketing - Lecture on financial management ◆ The women groups had continued some activities, such as production of banana chips and mending of clothes using sewing machines. The groups had been able to earn petty cash income from those activities. 	  				
		FFSs/hands-on training courses for SPTPP-MP in Sucos Madabeno and Talitu	<ul style="list-style-type: none"> ◆ A total of 10 nurseries and 12 demonstration plots for planting of seedlings were established in Sucos Madabeno and Talitu. ◆ A series of FFSs/training sessions covering the following topics were held at each nursery and demonstration plot, respectively, in both sucos from May 2012 to January 2013. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">FFSs at the nurseries</th> <th style="text-align: left;">FFSs at the demonstration plots</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> - Seedbed making - Selection and preparation of seeds - Sowing of seeds - Preparation of poly bags - Transplanting of sprouts - Maintenance of seedlings </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> - Delineation of contour lines - Staking and pitting - Refilling and planting - Staking and pitting </td> </tr> </tbody> </table> <ul style="list-style-type: none"> ◆ About 22,000 seedlings were produced and shared by members of the beneficiaries' groups. According to the NGO, all the seedlings given to members were planted in members' plots/farms. 	FFSs at the nurseries	FFSs at the demonstration plots	<ul style="list-style-type: none"> - Seedbed making - Selection and preparation of seeds - Sowing of seeds - Preparation of poly bags - Transplanting of sprouts - Maintenance of seedlings 	<ul style="list-style-type: none"> - Delineation of contour lines - Staking and pitting - Refilling and planting - Staking and pitting 	    
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FFSs/hands-on training courses for SUFP-MP in Sucos Madabeno and Talitu	<ul style="list-style-type: none"> ◆ A total of nine (9) demonstration plots were developed in Sucos Madabeno and Talitu. ◆ A series of FFSs/training sessions covering the following topics were held at each demonstration plot in both sucos from August 2012 to June 2013. <ul style="list-style-type: none"> - Compost making (including maintenance) - Delineation of contour lines - Application of soil conservation measures - Cultivation and application of compost - Sowing/planting of seeds and planting materials - Making of liquid fertilizer - Maintenance of farm - Harvesting and post-harvesting ◆ Although the beneficiaries' groups were able to harvest improved maize, its production was not as high as expected due to unfavorable climatic conditions, and low soil fertility. The average ratio of production to seeds sown in the demonstration plots was about 60:1, which was rather high than those observed in the plots in Fadabloco and Faturasa. However, some demonstration plots, of which soil fertility was rather high, showed better performance. 	   						

Year	Stage	Major Activities	Results				
	Participatory monitoring and evaluation	Meetings with members of the beneficiaries'/ women groups at the first batch sucos	<ul style="list-style-type: none"> ◆ In February/March 2013, the beneficiaries' groups and women groups of the micro programs in the 1st batch sucos had a two-day meeting each for the micro programs to evaluate the results of the FFSs and discuss necessary improvements to make the 2nd year FFSs effective. ◆ The groups also discussed and developed annual work plans of the respective micro programs in 2013/2014 with the assistance of the NGOs in the meetings. 				
2 nd year	2 nd FFSs and technical assistance	FFSs/hands-on training courses for SUFP with CBSE-MP in Sucos Faturasa and Fadabloco	<ul style="list-style-type: none"> ◆ Prior to the conducts of the 2nd year FFSs, the NGO helped the beneficiaries' groups re-organize members into sub-groups based on the customary collective working system or the proximity of their houses in the sucos. A total of 32 sub-groups were formed in April 2013. ◆ Almost the same FFS sessions had been held in the main demonstration plots from May 2013 to May 2014, while the NGO had further arranged the sessions on key techniques at the sub-demonstration plots during the same period to encourage members to apply key technique essential to sustainable upland farming to their own farms. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">FFS s at main demonstration plots</th> <th style="text-align: left;">FFSs at sub-group demonstration plots</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> - Compost making - Turn-over of compost - Building of an animal pen - Land clearing and cultivation - Application of compost - Selection and sowing of seeds - Making of liquid fertilizer - Maintenance of farm - Planting of hedgerows - Planting of lehe (green manure) - Harvesting and post-harvesting of maize - Fixing of terraces </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> - Compost making - Turn-over of compost - Delineation of contour lines - Plowing with application of compost - Sowing of seeds - Making of liquid fertilizer - Application of liquid fertilizer - Planting of lehe (green manure) </td> </tr> </tbody> </table> <ul style="list-style-type: none"> ◆ After training at the sub-group demonstration plots, the members have helped each other apply the techniques that they learned to their own farms with technical assistance from the NGO. According to the NGO, all the 315 members applied the key techniques to their own farms. ◆ In general, the productivity of maize in the demonstration plots was not as high as it was expected to be or rather lower due to the fluctuated rainfalls and insufficient application of compost, although some demonstration plots got higher outputs (harvests) as compared to the national average. 	FFS s at main demonstration plots	FFSs at sub-group demonstration plots	<ul style="list-style-type: none"> - Compost making - Turn-over of compost - Building of an animal pen - Land clearing and cultivation - Application of compost - Selection and sowing of seeds - Making of liquid fertilizer - Maintenance of farm - Planting of hedgerows - Planting of lehe (green manure) - Harvesting and post-harvesting of maize - Fixing of terraces 	<ul style="list-style-type: none"> - Compost making - Turn-over of compost - Delineation of contour lines - Plowing with application of compost - Sowing of seeds - Making of liquid fertilizer - Application of liquid fertilizer - Planting of lehe (green manure)
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Hands-on training courses for IG/LD-MP in Suco Fadabloco	<ul style="list-style-type: none"> ◆ The following hands-on training sessions were arranged and held by the NGO to upgrade the skills of members of the women groups. <ul style="list-style-type: none"> - Production of pickled vegetables - Clothes making using sewing machines - Cassava chips production ◆ The women groups had continuously practiced the production of cassava chips to improve the quality of cassava chips. At the same time, the NGO and JICA Project Team had promoted cassava chips to market the same in Dili. As a result, the women groups became able to sell their products in the major super markets in Dili. ◆ The women groups had earned a total of US\$ 542.5 from the sales of cassava chips, while each women group had earned about US\$ 10 to 20 from the sales of dried sweet potato and repair of clothes using sewing machines as of the end of February 2014. 						
2 nd year	2 nd FFSs and technical assistance	FFSs/Hands-on training courses for SPTPP-MP in Sucos Madabeno and Talitu	<ul style="list-style-type: none"> ◆ The beneficiaries' groups revised the membership of the groups and formed a total of 14 sub-groups composed of 338 members before the 2nd year FFSs. ◆ The NGO assisted each sub-group in the establishment of a nursery and a demonstration plot. The FFS sessions on the following topics had been held at each nursery and demonstration plot, respectively, from March to December 2013. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">FFSs at the nurseries</th> <th style="text-align: left;">FFSs at the demonstration plots</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> - Collection of soils and sands - Sowing of seeds in seedbeds - Mixing of soils and filling of mixture into poly bags - Transplanting of sprouts into poly bags </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> - Compost making - Turn-over of compost - Delineation of contour lines - Pitting - Refilling with compost application - Planting </td> </tr> </tbody> </table>	FFSs at the nurseries	FFSs at the demonstration plots	<ul style="list-style-type: none"> - Collection of soils and sands - Sowing of seeds in seedbeds - Mixing of soils and filling of mixture into poly bags - Transplanting of sprouts into poly bags 	<ul style="list-style-type: none"> - Compost making - Turn-over of compost - Delineation of contour lines - Pitting - Refilling with compost application - Planting
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Year	Stage	Major Activities	Results				
			<ul style="list-style-type: none"> ◆ About 26,700 seedlings had been raised through FFSs in 2013/2014. Out of the seedlings produced in the nurseries, about 22,600 seedlings were shared among members of the beneficiaries' groups in both villages for planting. About 3,360 seedlings were left in the nurseries for distribution in 2014/2015 as those were still too small to plant. 				
		FFSs/Hands-on training courses for SUFP-MP in Sucos Madabeno and Talitu	<ul style="list-style-type: none"> ◆ Like SUFP with CBSE-MP in Sucos Faturasa and Fadabloco, the NGO helped the beneficiaries' groups organize sub-groups under the respective beneficiaries' groups based on the customary collective working system. A total of 20 sub-groups were organized in both sucos. ◆ Each group selected one of members' plots as a sub-group demonstration plot to introduce the two (2) step extension approach. ◆ The NGO had held a series of FFSs/hands-on training sessions at the main and sub-group demonstration plots from May 2013 to June 2014. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">FFS s at main demonstration plots</th> <th style="text-align: left;">FFSs at sub-group demonstration plots</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> - Compost making and maintenance of compost - Land clearing - Plowing with compost application - Selection and sowing of seeds - Preparation of liquid fertilizer - Planting of cassava and sweet potato - Sowing seeds of peanut and mung bean - Weeding and application of liquid fertilizer - Building of an animal pen - Harvesting and post-harvesting of maize - Fixing of terraces </td> <td style="vertical-align: top;">Same as right</td> </tr> </tbody> </table> <ul style="list-style-type: none"> ◆ Like in the case of SUFP with CBSE-MP in Sucos Fadabloco and Faturasa, members of the beneficiaries' groups applied the techniques that they practiced in the sub-group demonstration plots to their own farms. Accordingly, all the 232 members (or 100 % of the members) produced compost and applied the contour composting technique to their own farms, while 204 members or 88% of the members used liquid fertilizer for additional fertilization to maize. ◆ Generally, the yields of maize in the main and sub-group demonstration plots were as low as the national average or rather lower than the same except some of the main and sub-demonstration plots. Unstable rainfalls, low soil fertility, and insufficient application of compost were considered as the main causes of low yield. 	FFS s at main demonstration plots	FFSs at sub-group demonstration plots	<ul style="list-style-type: none"> - Compost making and maintenance of compost - Land clearing - Plowing with compost application - Selection and sowing of seeds - Preparation of liquid fertilizer - Planting of cassava and sweet potato - Sowing seeds of peanut and mung bean - Weeding and application of liquid fertilizer - Building of an animal pen - Harvesting and post-harvesting of maize - Fixing of terraces 	Same as right
FFS s at main demonstration plots	FFSs at sub-group demonstration plots						
<ul style="list-style-type: none"> - Compost making and maintenance of compost - Land clearing - Plowing with compost application - Selection and sowing of seeds - Preparation of liquid fertilizer - Planting of cassava and sweet potato - Sowing seeds of peanut and mung bean - Weeding and application of liquid fertilizer - Building of an animal pen - Harvesting and post-harvesting of maize - Fixing of terraces 	Same as right						
	Participatory monitoring and evaluation	Meetings with members of the beneficiaries'/ women groups at the first batch sucos	<ul style="list-style-type: none"> ◆ Like in the case of the 1st year, the beneficiaries' and women groups evaluated the training courses as well as the results of the 2nd year FFSs. They also discussed whether or not they would like to continue the micro program activities as the 3rd year FFSs. All the beneficiaries' groups showed their intention to continue the same activities as they judged that the activities introduced by the micro programs were effective in improving their livelihoods. ◆ It was, therefore, agreed by the beneficiaries' groups and the JICA Project Team as well as the NGOs that the groups would continue the micro program activities on the following conditions: <ul style="list-style-type: none"> - Seedling production under SPTPP-MP should be continued by using the GoTL's funding scheme named "the Community Development Fund." - The 3rd year FFSs of SUFP with CBSE-MP and SUFP-MP should be continued with limited support from the NGOs. - Livelihood activities effective in generating cash income should be continued on the initiative of the women groups. ◆ The groups also developed annual work plans of the micro programs in 2014/2015 along the lines given above. 				
3 rd year	3 rd FFSs and technical assistance	FFSs/hands-on training courses for SUFP with CBSE-MP in Sucos Faturasa and Fadabloco	<ul style="list-style-type: none"> ◆ Members of the beneficiaries' groups had engaged in another round of FFSs in 2014/2015. The same topics as handled in the sessions of the 2nd year FFSs had been arranged and held at both main and sub-group demonstration plots, respectively. ◆ All the 312 members of the beneficiaries groups had applied the techniques that they practiced in the sub-group demonstration plots to their own farms with technical assistance from the NGO. ◆ The average ratio of production to the volume of seed sown in the demonstration plot was about 40:1, which was as low as that of the national average. 				










Year	Stage	Major Activities	Results
3 rd year	3 rd FFSs and technical assistance	OJT / technical assistance for IG/LD-MP in Suco Fadabloco	<ul style="list-style-type: none"> ◆ The women's groups had kept producing cassava chips even without technical assistance from the NGO. As a result of the continuous activities, the groups had delivered a total of 2,487 packages of cassava chips to major super markets in Dili and earned more than US\$ 3,000 from the sales as of the end of June 2015. ◆ In response to the request from PARCIC, the women groups had produced about 4 kg of herbal tea made of daleta leaves and earned US\$ 60 by selling them to PARCIC at a price of US\$ 15/kg. ◆ The women groups kept using sewing machines and earned cash income from mending clothes of communities. The NGO has periodically assisted the women's groups in improving their skills. ◆ The NGO held training sessions on book keeping so that the women groups could keep a book of account and manage the earning in a proper manner. ◆ The NGO and the JICA Project Team also held meetings with the women group Team to discuss how the groups would use the earnings (about US\$ 2,500 as of the time of the meetings) from the sales of cassava chips. The members decided to use the earnings in the following manners. <ul style="list-style-type: none"> - 20 % of the earnings would be shared among the members and saved as personal savings of the members. - 50 % of the earnings would be used for operations and expansion of the livelihood activities. - 30 % of the earnings would be used for micro credit. ◆ In April 2015, the women groups started the micro credit for members who had actively participated in cassava chips production.
		FFSs/hands-on training courses for SPTPP-MP in Sucos Madabeno and Talitu	<ul style="list-style-type: none"> ◆ The beneficiaries groups of SPTPP-MP decided to continue the production of fruit seedlings in the existing nurseries in 2014/2015 by using the GoTL's funding scheme named the Community Development Fund. Prior to the nursery operation, the beneficiaries groups confirmed members' willingness to continue the seedling production activities. A total of 268 members in 13 groups agreed to continue the nursery operations in 2014/2015. ◆ The beneficiaries groups had engaged in the same activities in the nurseries as practiced in the 2nd year FFSs and produced about 14,000 seedlings in both sucos in 2015. ◆ A total of 273 members planted the seedlings in their own plots with technical assistance of the NGO.
		FFSs/hands-on training courses for SUFP-MP in Sucos Madabeno and Talitu	<ul style="list-style-type: none"> ◆ Likewise, the beneficiaries groups had engaged in another round of FFSs on sustainable upland farming in the main and sub-group demonstration plots. ◆ The average ratio of the production to the volume of seed was about 40:1, which was as low as the national average. ◆ The members of the beneficiaries groups also applied the techniques that they practiced through the FFSs to their own farms with technical assistance of the NGO. More than 90 % of the members applied compost to their own farm, while about 80 % of the same planted fodder trees in terraces.
	Final evaluation of the micro programs	Meetings with the beneficiaries' groups	<ul style="list-style-type: none"> ◆ The NGOs arranged and held a one-day meeting each for the respective micro programs with the beneficiaries'/women groups and helped the groups evaluate the results of the micro programs and develop work plans of the respective micro programs so that the groups could continue similar activities even in the post-project periods. ◆ The beneficiaries'/women groups of the micro programs, except those of SUFP-MP in Sucos Madabeno and Talitu, decided to continue the micro program activities even with limited support from the NGOs.


Source: JICA Project Team (2015)

3.5.2 Results of the Second Batch Sucos

The micro programs in the second batch sucos had been implemented in the same manner as those implemented in the first batch sucos. The preparatory works started in January 2013, and the micro programs had been implemented for about two (2) years from April 2013 to August 2015.

Summary of the Preparatory Works

Year	Stage	Major Activities	Results	
1 st year	Preparatory works	Organization of the beneficiaries' groups	A total of 14 beneficiaries'/women groups composed of 227 members were formed for the micro programs in the second batch sucos in January/February 2013. 	
		Exposure visits/study tours for the beneficiaries'/women groups	A total of 69 members of the beneficiaries'/women groups of the micro programs participated in the exposure visits/study tours to sucos where similar activities had been carried out in February 2013. 	
		Preparation of work plans of the micro programs	The beneficiaries'/women groups discussed and prepared overall work plans of the respective micro programs in March 2013.	
	1 st FFSs and technical assistance	FFSs/hands-on training courses for SUFP with CBSE-MP in Suco Hautoho	<ul style="list-style-type: none"> ◆ Three (3) demonstration plots or one (1) demonstration plot each of the beneficiaries' groups were developed by the groups with technical assistance of the NGO. ◆ A series of FFSs/training sessions covering the following topics were held at each demonstration plot in Suco Hautoho. <ul style="list-style-type: none"> - Compost making including maintenance of compost - Delineation of contour lines - Application of soil conservation measures - Cultivation and application of compost - Seed selection and sowing of seeds - Making of liquid fertilizer - Farm management (weeding, application of liquid fertilizer, and fixing of terraces) - Planting of sweet potato - Application of green manure - Harvesting and post-harvesting of maize - Fixing of terraces ◆ The average ratio of production to the volume of seed in the demonstration plots was around 80:1, which was higher than the national average (30~50:1) but rather lower than the potential yield (100~150:1). However, the result of one of the demonstration plots indicated the possibility of achieving about 3 ton per hectare if soil and climate conditions were favorable. . 	    
			Hands-on training courses for IG/LD-MP in Suco Hautoho	<ul style="list-style-type: none"> ◆ The women groups assessed natural resources available in the suco and identified the following livelihood activities as potential livelihood activities in March 2013. <ol style="list-style-type: none"> i) Salted vegetable production ii) Dried sweet potato production iii) Herbal tea production iv) Cassava chips production v) Use of sewing machines ◆ The NGO had arranged and held a total of 12 training sessions on the above-listed topics from June 2013 to January 2014. ◆ The women groups had continued practicing sewing machines and making dried sweet potato on their own initiative after hands-on training sessions held by the NGO. Nevertheless, the groups had not been able to earn cash income from the activities in 2013/2014.
		FFSs/hands-on training courses for SUB/PF-MP in Suco Tohumeta	<ul style="list-style-type: none"> ◆ Each beneficiaries' groups developed one (1) demonstration plot with technical assistance of the NGO; therefore, a total of eight (8) demonstration plots were developed in Suco Tohumeta. ◆ A series of FFSs/training sessions covering the following topics had been held at each demonstration plot in Suco Tohumeta from April 2013 to May 2014. <ul style="list-style-type: none"> - Compost making and maintenance of compost - Delineation of contour lines and application of 	 

Year	Stage	Major Activities	Results				
			<ul style="list-style-type: none"> - contour composting technique - Plowing and application of compost - Application of compost basket - Selection and sowing of maize and beans - Pitting and refilling of pits with compost - Making of liquid fertilizer - Planting of sweet potato, cassava and mung beans - Farm maintenance - Building of an animal pen - Harvesting and post-harvesting - Maintenance of terraces <p>◆ The average yield of maize (or average ratio of production to the volume of seed sown) in the demonstration plots was about 130:1, which was far higher than the national average (50:1). The results suggested that techniques introduced could drastically improve the productivity of maize in the suco.</p> 				
	Participatory monitoring and evaluation	Meetings with members of the beneficiaries'/ women groups at the second batch sucos	<ul style="list-style-type: none"> ◆ The beneficiaries' and women groups of the micro programs had a two-day meeting each for the micro programs in February/March 2014 to evaluate the results of the 1st year FFSs and develop an annual work plan of each program for the 2nd year. ◆ It was agreed by the beneficiaries' groups and the NGOs in the meetings that: <ul style="list-style-type: none"> i) the two-step extension approach be introduced in the 2nd year curriculum of SUFP with CBSE-MP to disseminate the key techniques as many members of the groups as possible; ii) due consideration be given to marketing of products produced by the women groups of IG/LD-MP; and iii) production of fruit seedlings be incorporated in the 2nd year curriculum of SUB/PF-MP since its members intended to plant fruit trees in their farms. 				
2 nd year	2 nd FFSs and technical assistance	FFSs/hands-on training courses for SUFP with CBSE-MP in Suco Hautoho	<ul style="list-style-type: none"> ◆ Prior to the 2nd FFSs/hands-on training sessions, the NGO helped the beneficiaries' groups re-organize their members into sub-groups according to the locations of the houses/farms of the members. A total of 10 sub-groups were formed under three (3) beneficiaries' groups. Each sub-group selected one of the members' plots as a sub-group demonstration plot for FFSs on key techniques at the sub-group level. ◆ The NGO held the following FFSs/hands-on training sessions in the main and sub-group demonstration plots, respectively, from May 2014 to May/June 2015. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">FFS s at main demonstration plots</th> <th style="text-align: left;">FFSs at sub-group demonstration plots</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> - Compost making - Maintenance of compost - Building of an animal pen - Plowing and application of compost - Selection and sowing of seeds - Making of liquid fertilizer - Farm maintenance (1st time) - Planting of cassava and sweet potato - Fixing of terraces - Harvesting of red beans - Farm maintenance (2nd time) - Planting of green manure (lehe) - Planting of fruit seedlings - Harvesting and postharvesting of maize </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> - Compost making - Maintenance of compost - Delineation of contour lines - Application of contour compost - Plowing and application of compost - Farm maintenance (1st) - Planting of cassava and sweet potato - Fixing of terraces - Harvesting of red bean and planting of green manure - Farm maintenance (2nd) - Planting of fruit seedling - Harvesting and postharvesting </td> </tr> </tbody> </table> <ul style="list-style-type: none"> ◆ All the 110 members of the beneficiaries' groups had applied the key techniques, such as compost making, application of compost, and application of liquid fertilizer. ◆ The average productivity of maize grown in the demonstration plots was considered rather higher than the national average as the ratio of production to the volume of seed sown was more than 80:1. 	FFS s at main demonstration plots	FFSs at sub-group demonstration plots	<ul style="list-style-type: none"> - Compost making - Maintenance of compost - Building of an animal pen - Plowing and application of compost - Selection and sowing of seeds - Making of liquid fertilizer - Farm maintenance (1st time) - Planting of cassava and sweet potato - Fixing of terraces - Harvesting of red beans - Farm maintenance (2nd time) - Planting of green manure (lehe) - Planting of fruit seedlings - Harvesting and postharvesting of maize 	<ul style="list-style-type: none"> - Compost making - Maintenance of compost - Delineation of contour lines - Application of contour compost - Plowing and application of compost - Farm maintenance (1st) - Planting of cassava and sweet potato - Fixing of terraces - Harvesting of red bean and planting of green manure - Farm maintenance (2nd) - Planting of fruit seedling - Harvesting and postharvesting
FFS s at main demonstration plots	FFSs at sub-group demonstration plots						
<ul style="list-style-type: none"> - Compost making - Maintenance of compost - Building of an animal pen - Plowing and application of compost - Selection and sowing of seeds - Making of liquid fertilizer - Farm maintenance (1st time) - Planting of cassava and sweet potato - Fixing of terraces - Harvesting of red beans - Farm maintenance (2nd time) - Planting of green manure (lehe) - Planting of fruit seedlings - Harvesting and postharvesting of maize 	<ul style="list-style-type: none"> - Compost making - Maintenance of compost - Delineation of contour lines - Application of contour compost - Plowing and application of compost - Farm maintenance (1st) - Planting of cassava and sweet potato - Fixing of terraces - Harvesting of red bean and planting of green manure - Farm maintenance (2nd) - Planting of fruit seedling - Harvesting and postharvesting 						

Year	Stage	Major Activities	Results
2 nd year	2 nd FFSs and technical assistance	Hands-on training courses for IG/LD-MP in Suco Fadabloco	<ul style="list-style-type: none"> ◆ A total of 13 sessions covering the following topics were arranged and held by the NGO from May to November 2014. <ul style="list-style-type: none"> - Production of salted vegetables - Kontas chips production - Use of sewing machines ◆ After the sessions on kontas chips production, the women groups had continued the production of kontas chips to become able to produce marketable products. Having had a total of nine (9) OJT sessions, the women groups started delivering kontas chips to major super markets in Dili in October 2014. As of the end of July 2015, the groups have delivered about 100 packages of kontas chips to the major supermarkets and earned about US\$ 700 from the sales, although the groups suspended the production of kontas chips from January to June 2015 due to a shortage of raw material. ◆ The groups have also been able to earn cash income from mending clothes by using sewing machines. Like in Suco Fadabloco, the women groups had produced and sold about 1.5 kg of herbal tea to PARCIC and earned about US\$ 22 from the sales.
		Hands-on training courses for SUB/PF-MP in Suco Tohumeta	<ul style="list-style-type: none"> ◆ The NGO held the following FFSs/hands-on training sessions in the main demonstration plots in Suco Tohumeta from May 2014 to May/June 2015. <ul style="list-style-type: none"> - Making of seedling beds - Sowing of seeds - Compost making - Maintenance of compost - Delineation of contour lines and application of contour compost - Plowing and application of compost - Selection and sowing of seeds - Preparation of liquid fertilizer - Farm maintenance (1st) - Farm maintenance (2nd) - Trimming and application of mulches - planting of fodder crops/trees - Harvesting and post-harvesting of maize ◆ After hands-on training sessions in the demonstration plots, members of the beneficiaries' groups had helped each other apply the techniques that they practiced in the demonstration plots to their own farms following the customary collective working system named "harosan." All the 85 members had applied the key techniques of sustainable upland farming to their own farms/plots. ◆ The average productivity of maize grown in the demonstration plots was twice as high as that of the national average. In all the demonstration plots, the ratio of production to volume of seeds sown was more than 100:1. The results suggested that the average yield of maize in farms where the same techniques were introduced might be more or less 2 ton/ha.
	Final evaluation of the micro programs	Meetings with members of the beneficiaries'/ women groups at the second batch sucos	<ul style="list-style-type: none"> ◆ Lik in the case of the 1st batch sucos, the NGOs held a one-day meeting each for the respective micro programs to help the beneficiaries'/women groups evaluate the results of the micro programs and develop work plans of the respective micro programs. ◆ The groups reviewed their performance and results of the micro programs, discussed any difficulties that they had faced, evaluated the effectiveness and applicability of the techniques that the micro programs introduced in the meetings. They also prepared an annual work plan of the micro programs in 2015/2016 as all the groups showed their intention to continue the micro program activities even after the end of the support from JICA.

Source: JICA Project Team (2015)

3.6 Exchange Visits (Harvesting Ceremonies) at the Target Villages

With an aim to encourage and motivate village leaders and key members of the beneficiaries'/women groups to work for the micro programs, the NGOs and the JICA Project Team had arranged and organized an exchange visit for the members of the

beneficiaries'/women groups twice over the course of the micro programs: a harvesting ceremony at Suco Hautoho in 2014 and another harvesting ceremony at Suco Tohumeta in 2015. In the exchange visits, village leaders and key members of host communities introduced their activities and results of the micro programs and had meetings with visitors to exchange their views. The exchange visits became a good opportunity not only for the participants to get stimulated but also for key members in the host sucos to enhance a sense of ownership of the micro programs.

3.7 Establishment of a Watershed Management Council

Although the incidence of forest fires, illegal cutting, and crop damage caused by animal grazing has been drastically reduced since the village regulations were in place in the target sucos, there have been still illegal cases happening in the sucos as the village regulations in one suco can not regulate illegal activities caused by people living in the neighboring sucos. In order to develop a platform where the target and the neighboring sucos could have dialogues and take necessary actions to minimize the illegal activities at the sub-watershed level, the JICA and MAF Project Teams together with the NGO have had the following meetings with leaders of two (2) sub-district administrative offices (Remexio and Liquidoe Sub-districts) and 12 sucos geographically relating to the Noru sub-watershed from May 2014 to October 2015.

Meetings held to Establish and Operationalize a Watershed Management Council

Objectives	Meetings	Period
Establishment of a watershed management council	<ul style="list-style-type: none"> ▶ Consultation with sub-district administrative offices ▶ Consultation with village leaders ▶ Study tour to the target suco of the JICA Project ▶ Study tour to the Rumoco watershed ▶ Meeting for a stakeholder analysis ▶ Meeting for a situation analysis ▶ Meeting for future visioning ▶ Discussion on draft bylaws, vision, missions of the council 	May to August 2014
Development of a watershed management plan	<ul style="list-style-type: none"> ▶ Introduction of purposes and outline of a watershed management plan ▶ Discussion on the present conditions of the Noru watershed ▶ Discussion on the current issues and concerns on watershed management ▶ Discussion on programs and sub-programs proposed by the plan ▶ Discussion on the final version of the watershed management plan ▶ Discussion on the resolution of the council on the management plan 	September 2014 to February 2015
Regular meeting of the watershed management council	1 st to 5 th regular meeting of the watershed management council	September 2014 to October 2015

Source: JICA Project Team (2015)

Chapter 4 Results of the Activities under Output 2

4.1 Preparation of Training Materials and Capacity Development Plans

Prior to the conducts of training activities for the counterparts, the JICA Project Team had carried out the following activities to make the capacity development activities effective.

- a. Orientation for the counterparts from the MAF District office in Aileu
- b. Development of a ministerial administrative order on the appointment of the counterparts with operation guidelines
- c. Collection of useful existing CB-NRM practices and techniques
- d. Conduct of a training needs assessment
- e. Development of a capacity development plan for the counterparts

4.2 Technical Seminars and OJT for the Counterparts

In order to help the counterparts get a clear picture of the whole process of CB-NRM and learn its requisite procedures and techniques, the JICA Project Team had held a total of 18 technical seminars for the counterparts from May 2011 to March 2015.

- 1) Overall concept of CB-NRM
- 2) Concept and overall process of PLUP
- 3) Procedures for PLUP in the planning phase
- 4) Procedures for PLUP in the implementation phase
- 5) Selection of priority micro programs
- 6) Outlines of the selected micro programs
- 7) Group Organization for Implementation of Micro Program
- 8) Major techniques introduced by the micro programs
- 9) Overall concept of CB-NRM
- 10) Facilitation skills
- 11) Major techniques and skills of the micro programs
- 12) PRA (As a part of the three-day training session)
- 13) Participatory planning, monitoring and evaluation
- 14) Terms of Reference
- 15) Major techniques introduced by the micro programs (refreshing courses)
- 16) Facilitation skills (refreshing course)
- 17) Building of an animal pen
- 18) Utilization of natural resources for livelihood development



Technical Seminar



Weekly Meeting

In addition to seminar-type training, the JICA Project Team had arranged the following on-the-job-training (OJT) courses for the counterparts from February 2011 to July 2015.

- a. Consultation meetings with leaders and communities at the target sucos in 2011
- b. PRA sessions carried out by the NGOs in the target sucos in 2011 and 2012
- c. Participatory land use planning (PLUP) carried out by the NGOs in the target sucos in 2011 and 2012
- d. Sessions conducted by the NGOs for selection of the priority micro programs in the target sucos in 2011 and 2012
- e. Monthly meetings in the target sucos to monitor the occurrence of illegal cases and discuss solutions referring the village regulations from 2011 to 2015
- f. Activities carried out by the NGOs and members of the beneficiaries' groups in the course of the micro programs in the target sucos from 2012 to 2015

In order for the counterparts to be the trainers/resource persons on the CB-NRM techniques, the JICA Project Team had arranged and organized the following Training of Trainers (ToT)-type training courses for the counterparts from January 2013 to November 2014.

- a. PRA at Suco Fahisoi
- b. Seminar on CB-NRM and the JICA CB-NRM Project
- c. Seminar on work plans of the micro programs
- d. Seminar on PLUP
- e. Study tour to Sucos Talitu and Manatutu
- f. Seminar on draft CB-NRM technical manuals
- g. Study tour to Suco Tohumeta



PRA by counterparts



Seminar on CB-NRM
Technical Manuals

4.3 Annual Feedback and Planning Seminars by Counterparts

In order to help the counterparts assess the effectiveness of the training courses held by the JICA Project Team and revise the training curricula to make them more effective, the JICA Project Team had held feedback seminars with the counterparts every year over the course of the Project. At the same time the JICA Project Team had assisted the counterparts in the preparation of annual work and budget plans for their activities in the seminars.



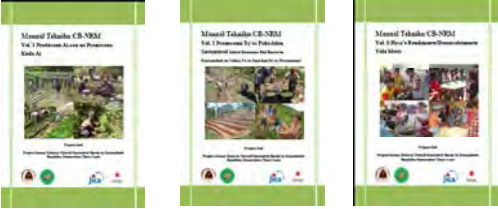
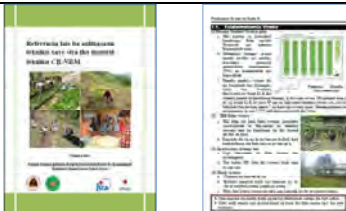
Feedback and Planning Seminar

As a result of the feedback and planning seminars, the counterparts had submitted annual work and budget plans for their activities from 2012 to 2016 to their superior bodies to secure operation budgets for their activities over the course of the Project.

4.4 Preparation of Technical Materials/References on CB-NRM

Over the course of the Project, the JICA Project Team has prepared the following technical materials to disseminate techniques relating to CB-NRM among relevant stakeholders, such as MAF extension officers, forest guards, and other field practitioners working in the agriculture and forestry sectors in Timor-Leste.

Technical Materials/References developed by the JICA Project Team

Materials	Outline
CB-NRM Information Kit	The CB-NRM Information Kit is a technical reference book introducing a total of 44 existing techniques and practices useful for sustainable natural resource management and applicable to local settings in Timor-Leste, especially in the Laclo and Comoro river basins.
CB-NRM Technical Manuals	The CB-NRM Technical Manuals are composed of three (3) volumes: Vol. 1: Seedling Production and Tree Planting, Vol. 2: Sustainable Upland Farming, and Vol. 3: Income Generating/Livelihood Development. The manuals introduce the key approaches to effective extension and a whole set of techniques/skills which have been demonstrated in the course of the micro programs. 
Manual for Formation of a Watershed Management Council	The manual describes the process of forming a watershed management council of a sub-watershed in the Laclo and Comoro river basins to guide field officers and planners in MAF, especially NDFWM, on how to i) form a collaboration platform on a sub-watershed scale in coordination with local stakeholders and ii) make the platform operational as a council for watershed management.
Quick Reference of the CB-NRM Technical Manuals	Quick Reference is a booklet introducing the key techniques extracted from the CB-NRM Technical Manuals so that the field officers could use and refer it in the field while providing technical training/extension services. 

Source: JICA Project Team (2015)

Chapter 5 Results of the Activities under Output 3

5.1 Creation of a Taskforce in NDF

In order to facilitate the discussions with NDF on a new policy document for expansion of CB-NRM in the target river basins, NDF formed a taskforce/working team composed of 15 NDF officers and one (1) MAF advisor in July 2011 in response to the request from the JICA Project Team.

5.2 Discussions with NDF Taskforce/Working Team on Policy Recommendations and Operational Procedures for Promotion of CB-NRM

The JICA Project Team had held a total of 10 meeting from August 2011 to June 2015 to discuss the following topics with the NDF taskforce/working team to develop a new policy document for expansion of CB-NRM in the target river basins.

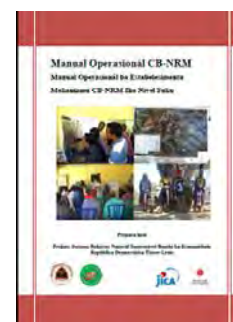
- a. Kick-off meeting
- b. Meeting on the work plan of the working team
- c. Situation and stakeholder analyses
- d. Assessment of the forest sector policy and forest management bill
- e. Activities of the JICA CB-NRM Project and basic concepts of CB-NRM
- f. Organizational structure and roles/responsibilities of key players in the promotion of CB-NRM
- g. Necessary interventions and arrangements for promotion of CB-NRM
- h. Draft policy recommendations for expansion of CB-NRM
- i. Draft ministerial order for promotion of CB-NRM



5.3 Preparation of Operation Manual for Establishment of the CB-NRM Mechanism

The JICA Project Team prepared the Operation Manual for Establishment of the CB-NRM Mechanism at the Suco Level, which described the whole process of and detailed procedures for establishment of a mechanism of CB-NRM (CB-NRM mechanism) on a village level through i) discussions with NDF and NDSDAC, ii) trial use of the first draft in the Raumoco watershed, and iii) consultation meetings with relevant stakeholders at the district level.

The Operation Manual describes i) objectives of the CB-NRM mechanism, ii) overall process of establishment of the CB-NRM mechanism at the village level, iii) procedures/steps for participatory land use planning (PLUP), iv) procedures/steps for selection of priority agriculture and forestry extension services (micro programs), v) procedures/activities for institutionalization of village regulations, and vi) procedures/activities for implementation of micro programs.



5.4 Preparation of Policy Recommendations

The JICA Project Team also prepared and finalized the policy recommendations for expansion of CB-NRM together with the draft ministerial order for promotion of the CB-NRM mechanism through a series of discussions with the NDF taskforce/working team. To finalize the policy recommendations, the JICA Project Team had held a total of five (5) consultation meetings with relevant stakeholders at both central and district levels in March and April 2015. In July 2015, the JICA Project Team submitted a set of the policy recommendations with the draft ministerial order to NDFWM and MAF for approval. The recommendations compiled into the document are summarized below.

- 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.
- 2) Expand the CB-NRM mechanism in villages as planned under Forest Conservation Program in the Forest Conservation Plan.
- 3) Form a new department specifically for CB-NRM or Community-Based Forest Management (CBFM) in NDFWM.2.
- 4) Enact the Forest Management Decree along with its supporting guidelines, especially those for introduction of CFMA.
- 5) Build the capacities of key stakeholders, especially MAF/NDFWM/NDFC and NGOs, to assist communities and their leaders in introduction of the CB-NRM mechanism and preparation for CFMA in the future.
- 6) Use competent NGOs/facilitators as field facilitators to assist MAF and NDFWM/NDNC in the effective and smooth introduction of the CB-NRM mechanism in the field.
- 7) Ensure that 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.
- 8) Integrate the process of introducing the CB-NRM mechanism or granting CFMA into the process of a village development planning.

5.5 Institutionalization of Policy Recommendations

In order to facilitate discussions on the recommendations described above, especially the first recommendation, namely, “*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 basin,*” the JICA Project Team drafted “the ministerial order for promotion of the CB-NRM mechanism” in both English and Portuguese, and submitted to NDFWM/MAF. At the same time, the JICA Project Team had held several meetings with General Director of Forestry on this matter in June and July 2015 to obtain his support for the policy recommendations. The recommendations with the draft ministerial order were finally endorsed by General Director of Forestry to the Minister of MAF on July 15, 2015.

5.6 Preparation of Quick Reference of the Operation Manual

In order to make the Operation Manual handy and easy to use in the field, the JICA Project Team developed an A-3-sized leaflet, which briefly described the procedures for key processes of the establishment of the CB-NRM mechanism, namely PLUP, selection of priority agriculture and forestry extension services/micro programs, institutionalization of village regulations, and implementation of the extension services/micro programs.

Chapter 6 Results of the Activities under Overall Project Management

6.1 Meetings and Seminars with NDF/MAF

In order to help NDF and MAF staff including the counterparts for the Project have a better understanding of the Project, the JICA Project Team had held the following meetings and seminars with the staff of NDF and MAF over the course of the Project.

- a. 1st Project Introductory Seminar for NDF
- b. 2nd Project Introductory Seminar for NDF

- c. 3rd Project Introductory Seminar for NDF (3rd)
- d. Seminars on CB-NRM Pamphlet and Qucik References at MAF District Offices
- e. Launching and Hand-Over of CB-NRM Manuals

6.2 Procurement of the Project Equipment

In accordance with the R/D of the Project, the JICA Project Team had procured and handed over the following project equipment to MAF/NDF over the course of the Project.

Project Equipment Procured and Handed Over to MAF/NDF

Equipment	Type/Model	Unit	Date of hand-over
Motorbikes	Honda Megapro 150	4	August 2, 2011
Photocopy machine	Xerox DC 1085	1	August 2, 2011
Desktop Computer	HP pro 3000 Desktop HP LE1851W 18.5" Monitor	1	August 2, 2011
Software	Microsoft Office Home and Business 2010	1	August 2, 2011
Anti-virus Software	Kaspersky AntiVirus 2011	1	August 2, 2011
Projector	LCD Projector SANYO PDG-DSU20	1	August 2, 2011
Generator	Honda SGX 2500	1	August 2, 2011
GPS	Garmin E-treck	4	August 2, 2011
Project Vehicles	Toyota Hi Lux 3000	2	June 14, 2012

Source: JICA Project Team (2012)

6.3 Joint Coordination Committee (JCC) Meetings

Over the course of the Project, the JICA and MAF Project Teams had a total of seven (7) Joint Coordination Committee meetings.

6.4 Public Relations

In order to make a wide range of stakeholders aware of the Project and its activities, the JICA Project Team had prepared seven (7) issues of the project newsletters as of the end of March 2015. In addition to the issuance of the project newsletter, the JICA Project Team had arranged the following events at the target sucos in collaboration with the partner NGOs to raise awareness of the project activities among high officials of MAF.

- a. Harvesting ceremony at Suco Fadabloco in 2013
- b. Harvesting ceremony at Suco Hautoho in 2015

Moreover, the JICA Project Team and the partner NGOs had participated in the following exhibitions/events organized by MAF as well as MAF development partners to introduce the results and process of the CB-NRM mechanism.

- a. MAF's Exhibition in 2014
- b. CBD event organized by UNDP in 2014
- c. Exhibition organized by Global Climate Change Adaptation (GCCA) in 2014

6.5 Arrangement for the Training Courses in Japan

A total of nine (9) counterparts had taken part in four (4) training courses arranged and organized in Japan from 2011 to 2014. The JICA Project Team arranged for the training courses coordinating with the relevant organizations in Japan prior to the courses. A member of the JICA Project Team also accompanied the counterparts during the training courses in Japan.

6.6 Coordination with Other Organizations

As part of the coordination with other development partners, the JICA Project Team had undertaken the following activities with the partner NGOs over the course of the Project.

- a. Arrangement of an exchange visit of a group of members of the Raumoco watershed management council to Sucos Fadabloco and Hautoho in 2012
- b. Provision of technical assistance to Seed of Life and local NGOs in the conduct of PLUP in two (2) sucos in the Raumoco watershed in 2014
- c. Sharing of information with and/or arrangement of field visits of relevant MAF development partners and their supporting projects, such as, i) meetings with their experts, ii) support for and arrangement of their field visits to the target sucos, and iii) sharing of project documents, especially the policy recommendations with the draft ministerial order, and the CB-NRM operation and technical manuals, and other public relations materials.



PLUP in Raumoco



Field visit by WorldBank

6.7 Project Evaluation

The Project has been evaluated jointly by JICA and MAF at the midpoint of the Project (March 2013) and six (6) months before the end of the Project (June/July 2015) in accordance of the Record of Discussions (R/D) agreed upon by both governments.

6.8 Project Reports and Other Deliverables

The JICA Project Team had developed and submitted the following project reports/deliverables to NDF/MAF over the course of the Project.

Reports and Deliverables submitted by the JICA Project Team

Type of document	Title of document
Project Report	Inception report in English
	Progress Report (1) (Tetun and English)
	Progress Report (2) (Tetun and English)
	Progress Report (3) (Tetun and English)
	Progress Report (4) (Tetun and English)
	Annual Completion Report (2011/2012) (Tetun and English)
	Annual Completion Report (2012/2013) (Tetun and English)
	Annual Completion Report (2013/2014) (Tetun and English)
	Annual Completion Report (2014/2015) (Tetun and English)
	By-monthly Progress Reports from January 2011 to February 2015 (Tetun and English)
Manuals	Operation Manual for Establishment of the CB-NRM Mechanism at the Suco Level (Tetun and English)
	CB-NRM Technical Manuals (Vo1. 1 ~ Vol. 3) (Tetun and English)
	Manual for Formation of a Watershed Management Council (Tetun and English)
	Quick reference of the Operation Manual (Tetun and English)
	Quick reference of the Technical Manuals (Tetun and English)
Technical Reference	CB-NRM Information Kit (Tetun and English)
Policy Documents	Policy Recommendations for Expansion of CB-NRM (Tetun and English)
	Draft Ministerial Order for Promotion of the CB-NRM Mechanism (Portuguese and English)
Public Relations	CB-NRM Pamphlet (Tetun and English)
	Project Nesletters (Issue No. 1~No.7)
Others	Village and Resurce Profilles of the Target Villages (Tetun and English)
	Reports of the Feedback and Planning Seminars held from 2012 to 2015 (Tetun and English)
	Reports of the 3 rd ~9 th meetings with the NDF Taskforce/working team (Tetun and English)

Source: JICA Project Team (2015)

Chapter 7 Accomplishments of the Project and Summary of the Results of the Terminal Evaluation of the Project

7.1 Assessment of the Level of Achievements of the Project

The JICA and MAF Project Teams assessed the level of achievements of the Projects by checking whether or not the indicators given to the project purpose and outputs in the latest PDM were attained. Based on the assessment made, the JICA and MAF Project Teams judged that all the indicators had been satisfied as of the end of November 2015.

7.2 Results of the Terminal Evaluation

The terminal evaluation of the Project was jointly conducted by MAF and JICA in June and July 2015. The results of the terminal evaluation based on the five evaluation criteria are summarized below.

Results of the Evaluation based on Five Evaluation Criteria

Criteria	Evaluation
Relevance	High
Effectiveness	High
Efficiency	Moderate
Impact	Some positive impacts are expected to be observed.
Sustainability	Sustainability is yet to be ensured sufficiently although it is expected on some aspects.

Source: Report of the Joint Terminal Evaluation on the Project for Community Based Sustainable Natural Resource Management in the Democratic Republic of Timor-Leste (2015)

Chapter 8 Lessons Learned

8.1 Lessons Learned from Overall Project Management and Project Framework

The joint terminal evaluation team organized also identified and extracted lessons learned from reviews of overall management and framework of the Project as shown below.

- a. Utilization of NGOs for disseminating impacts of the Project
- b. Utilization of NGOs in countries under developing capacity of government institution
- c. Importance of preliminary studies
- d. Selection of NGOs that have financial capacity
- e. Establishment of a platform for watershed management including non-target villages of the project
- f. Enhancement of efficiency of the Project activities by making use of traditional customs and practices
- g. Effectiveness of utilization of local material
- h. Existence of staffs of facilitating agencies in remote target villages

8.2 Lessons Learned from the Project Activities

On the other hand, the JICA Project Team extracted the following lessons through implementation of the Project.

Lessons learned from the activities under Output 1

- a. Allocation of adequate time
- b. Removal of hindrances
- c. Deployment of local staff

- d. Involvement of a wide range of communities
- e. Securing of opportunities for training among communities
- f. Utilization of the traditional collective working system for agricultural extension
- g. Introduction of a process approach

Lessons learned from the activities under Output 2

- a. Set-up of the realistic targets
- b. Security of necessary support
- c. Importance of showing actual results in the field
- d. Sharing of responsibility with government officials in a phased manner

Lessons learned from the activities under Output 3

- a. Involvement of NDF officers in the process and continuous discussions
- b. Institutional development based on field experiences

Chapter 9 Recommendations

9.1 Recommendations given by the Terminal Evaluation Team

As described in Chapter 7, the following recommendations made by the joint terminal evaluation teams to ensure the sustainability of the project effectiveness as well as achieve the overall goal of the Project.

- a. Realization of policy recommendations
- b. Monitoring of CB-NRM practices in the target sucos
- c. Monitoring of the watershed management council of the Noru sub-watershed
- d. Utilization of Japan's Grant Aid Project "Forest Preservation Programme"
- e. Improvement of the CB-NRM mechanism
- f. Support of the Noru sub-watershed council
- g. Awareness raising of local residents in the target area

9.2 Recommendations given by the JICA Project Team

Besides, the JICA Project Team further proposes the following actions and interventions that MAF should take into account for achievement of the overall goal of the Project as well as expansion of CB-NRM in an effective manner.

- a. Development of key players in expansion of CB-NRM
- b. Finalization and approval of the new ministerial order for promotion of the CB-NRM mechanism
- c. Encouragement of MAF development partners to integrate the CB-NRM mechanism into their programs/projects.
- d. Utilization of the Project materials

Chapter 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. The assessment made by FAO in 2005¹ revealed that forests in the country covered only about 54 % (or 0.8 million ha) of the total land area (1.5 million ha). Deforestation has further caused soil erosion, landslides and flash floods, which eventually affected the lives of people residing within river basins. But ironically, deforestation has been mainly caused by economic activities done by people residing in the same river basins, such as i) forest fires, ii) tree cutting for firewood collection, iii) shifting cultivation, and iv) uncontrolled illegal logging. Furthermore, what made this problem difficult to solve was that the said activities were mainly undertaken by poor upland farmers who subsist on forest and farm products collected/produced by such activities.

In order to promote sustainable forest management in the country, the Government of Timor-Leste (GoTL) developed and adopted the Forest Policy in 2008, which aimed at achieving sustainable management of forest resources in the country. It has been however difficult for MAF and NDF to apply the necessary measures against issues that cause forest degradation due to the undeveloped legal system on forest management, insufficient institutional set-ups, and lack of human resources in MAF and NDF quantitatively and qualitatively. Given the fact that the financial situation of the country has improved thanks to the continuous revenue from the oil production in Timor Sea, the country has had an increased need for developing the capability of MAF/NDF and establishing a framework for forest management in the country using its own budget in a proper and effective manner.

Under such circumstances, the GoTL and the Japan International Cooperation Agency (JICA) agreed on the conduct of a development study named “The Study on Community-Based Integrated Watershed Management in Laclo and Comoro River Basins” in 2004. The study was aimed at the contribution to sustainable management and protection of forest resources in the Laclo and Comoro river basins, which were two (2) of the 10 critically degraded river basins in the country. In accordance with the agreement, JICA had carried out the development study with the implementation of pilot projects focusing on sustainable land use management, tree planting, sloping agricultural, and livelihood development in the target river basins, from November 2005 to March 2010. As a result of the study, a community-based integrated watershed management plan for the said river basins and watershed management planning guidelines were developed and submitted to the GoTL.

Having confirmed the effectiveness of the activities (sub-programs) proposed in the community-based integrated watershed management plan through the implementation of the pilot projects, the GoTL further requested JICA to assist itself in the establishment of an implementation mechanism and development of the capabilities of the government officials for community-based natural resource management. Both governments agreed to jointly implement a technical cooperation project named “The Project for Community-Based Sustainable Natural Resource Management” (hereinafter referred to as “the Project”) as described in the Record of Discussions (R/D) concluded in August 2010.

¹ Forest Resource Assessment and the State of the World's Forest (FAO), 2005

The Project started its activities with the consent of NDF for the overall work plan of the Project in January 2011, and has carried out its work plan since then. This is the Project Completion Report describing all the activities done and results made by the Project from the beginning of January 2011 to the middle of December 2015.

1.2 Outline of the Project

(1) Objectives of the Project

The project purpose (or the main objective of the Project) agreed upon by MAF and JICA is that “an operational mechanism² of CB-NRM at suco level is developed.” The project purpose is to be supported by the following three (3) outputs:

- Output 1: Land use plans are agreed upon and implemented by local residents in accordance with relevant suco regulations;
- Output 2: Capacities of the staff of the implementing agency and relevant stakeholders³ are enhanced to support CB-NRM; and
- Output 3: Effective processes with roles of stakeholders to support CB-NRM are identified.

On the other hand, the overall goal that the Project is expected to achieve in the post-project period is that “CB-NRM is practiced in the target area.” The latest project design matrix (PDM) of the Project is presented in **Table 1**.

(2) Targets of the Project

Overall, the Project targets the Laclo and Comoro river basins; however each project output focuses its activities on the different targets as shown below.

- a. The activities for Output 1 are to be carried out in six (6) sucos in the Noru and Bemos sub-watersheds in the Laclo and Comoro river basins, respectively, or three (3) sucos from the Noru sub-watershed and another three (3) from the Bemos sub-watershed, as shown in **Figure 1**.
- b. The capacity development activities for Output 2 are to be carried out for the staff of MAF, especially those assigned as the counterparts for the Project.
- c. The policy recommendations to be drafted under Output 3 are to be basically applicable to the Laclo and Comoro river basins, although it might be useful for other areas in the country when feasible.

(3) Project Period

Originally, the Project was scheduled to be implemented over 58 months from January 2011 to October 2015, but the project period was extended for about two (2) months to develop the publicity materials as recommended by the JICA and MAF joint evaluation team in the terminal evaluation of the Project in July 2015.

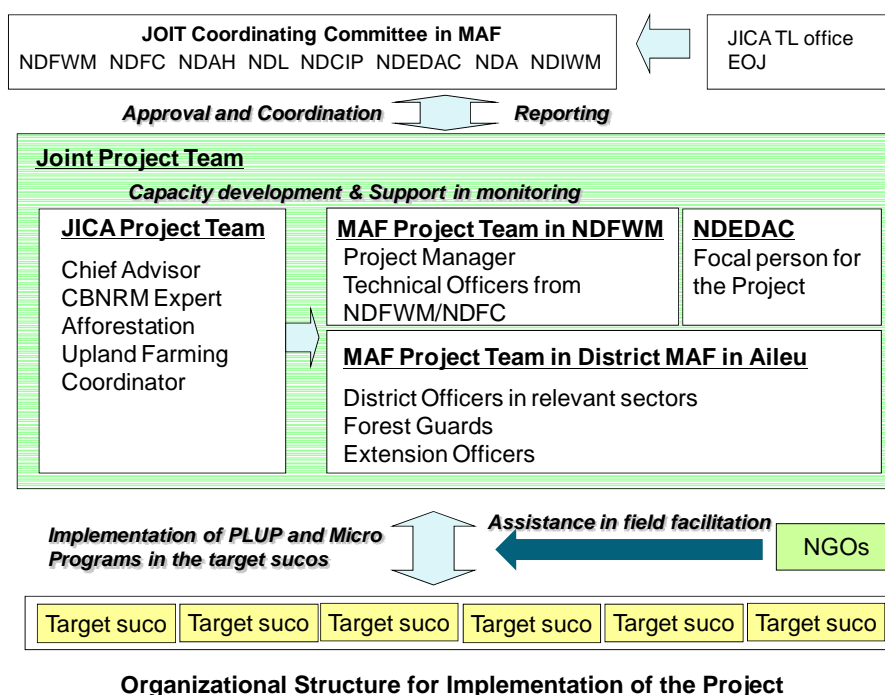
(4) Institutional Framework for Implementation of the Project

As described above, the Project is to be implemented jointly by JICA and MAF. From MAF side, the National Directorate of Forestry (NDF), which split into the National Directorate of Forest and Watershed Management (NDFWM) and the National Directorate

² Operational mechanism is embodied in the endorsed and practiced guidelines/manuals on the process with roles of stakeholders to support CB-NRM, technical manuals on CB-NRM, and the policy recommendations.

³ Personnel of relevant national directorates of Ministry of Agriculture and Fisheries (MAF), district directorates of MAF in the target area and other facilitating agencies, such as NGOs working in the target area.

of Forest Conservation⁴ in 2014, was responsible for implementation of the Project as the implementing agency among the national directorates of MAF. NDF was responsible for administrative and financial arrangements necessary for operations of the Project, especially the activities to be carried out by the MAF side, such as appointment of counterparts for the Project, allocation of budget and provision of facilities/equipment for activities of the counterparts, and coordination with relevant organizations including other national directorates of MAF. From October 2014, NDFWM has taken charge and been responsible for the implementation of the Project, as it holds the Department of Reforestation and Community and Urban Forestry and the Department of Soil and Water Conservation and Watershed Management. On the other hand, the JICA Project Team entrusted by JICA with the implementation of the Project has borne the responsibility to carry out the project activities relevant to the achievement of the project purpose as well as outputs. The Team also has had an obligation to make necessary arrangements for smooth operations of the project activities, i.e., employment of field facilitators for activities for Output 1, organization of seminars and meetings, procurement of project equipment, and provision of technical assistance to NDF/NDFWM as well as field facilitators. The organizational structure for implementation of the Project is illustrated below.



Organizational Structure for Implementation of the Project

1.3 Composition of this Report

This report or the Project Completion Report is composed of nine (9) chapters. This chapter, Chapter 1, introduces the background of the Project, followed by Chapter 2 which gives overviews of the Project. All the results and accomplishments made by the Project are described from Chapters 3 to 6. Chapter 7 summarizes the results of the terminal evaluation of the Project, while Chapter 8 highlights lesson learned including issues and concerns that the Project has faced in the course of the Project. The last chapter, Chapter 9 describes recommendations for the achievement of the overall goal of the project in a few years after the end of the Project.

⁴ NDF was divided into two (2) national directorates, namely National Directorate of Forest and Watershed Management and National Directorate of Nature Conservation, in October 2014, when the Ministry of Agriculture and Fisheries was restructured.

**PROJECT COMPLETION REPORT
FOR COMMUNITY-BASED SUSTAINABLE NATURAL RESOURCE
MANAGEMENT IN THE DEMOCRATIC REPUBLIC OF TIMOR-LESTE**

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List of Abbreviations

ALGIS	The Agriculture and Land Use Geographic Information System
APO	Annual Plan of Operation
AusAID	Australian Agency for International Development
CBD	Convention on Biological Diversity
CB-NRM	Community Based Natural Resources Management
CBSE-MP	Community-Based Seedling Extension Micro Program
CFMA	Community Forest Management Agreement
COMES	Portuguese agency for international cooperation
CP	Counterpart(s)
DFAT	Department of Foreign Affairs and Trade
DFO	District Forest Officer
EOJ	Embassy of Japan
EU	European Union
FA	Facilitating Agencies
FAO	Food and Agriculture Organization
FFS	Farmers Field School
GCCA	Global Climate Change Adaptation
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (Germany agency for international cooperation)
GoTL	Government of Timor-Leste
HH	Household
HQ	Head quarter
IG/LD-MP	Income Generating/ Livelihood Development Micro Program
JCC	Joint Coordination Committee
JE	JICA Expert(s)
JFY	Japanese Financial Year
JICA	Japan International Cooperation Agency
MAF	Ministry of Agriculture and Fishery
NDA	National Directorate of Agriculture
NDAH	National Directorate of Agriculture and Horticulture
NDCIP	National Directorate of Coffee and Industrial Plantation
NDEDAC	National Directorate of Extension Development for Agricultural Communities
NDF	National Directorate of Forestry
NDFC	National Directorate of Forest Conservation
NDFWM	National Directorate of Forest and Watershed Management
NDIWM	National Directorate of Irrigation and water management
NDL	National Directorate of Livestock
NDSDAC	National Directorate of Support and Development of Agriculture and Communities
NGO	Non- Governmental Organization
NTFP	Non-Timber Forest Product
ODA	Official Development Assistance
OJT	On the Job Training
PDM	Project Design Matrix
PLUP	Participatory Land Use Plan
PO	Plan of Operations
PRA	Participatory Rural Appraisal
R/D	Record of Discussions
RECOFTC	Center for People and Forests
SALT	Sloping Agricultural Land Technique
SPTPP-MP	Seedlings Production and Tree Plantation Promotion Micro Program
SR	Survival rate
SUB/PF-MP	Sustainable Utilization of Backyard/Permanent Farm Micro Program

SUFP-MP	Sustainable Upland Farming Promotion Micro Program
SV	Supervisor
TFY	Timorese Financial Year
TL	Timor-Leste
TNA	Training Needs Assessment
ToT	Training of Trainers
UNDP	United Nations Development Programme
USAID	United States Agency for International Development.

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- Appendix-5.6 Letter of Endorsement of the Policy Recommendations for Expansion of CB-NRM
- Appendix-5.7 Quick Reference of the CB-NRM Operation Manual (English and Tetun)
- Appendix-6.1 Memos of Meetings and Seminars held with NDF/MAF over the Course of the Project
- Appendix-6.2 Hand-over Note on Project Equipment
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- Appendix-6.4 Project Newsletters (Issue No. 1~7)
- Appendix-7.1 Report of the Joint Terminal Evaluation on the Project for Community-Based Sustainable Natural Resource Management in the Democratic Republic of Timor-Leste

Chapter 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. The assessment made by FAO in 2005¹ revealed that forests in the country covered only about 54 % (or 0.8 million ha) of the total land area (1.5 million ha). Deforestation has further caused soil erosion, landslides and flash floods, which eventually affected the lives of people residing within river basins. But ironically, deforestation has been mainly caused by economic activities done by people residing in the same river basins, such as i) forest fires, ii) tree cutting for firewood collection, iii) shifting cultivation, and iv) uncontrolled illegal logging. Furthermore, what made this problem difficult to solve was that the said activities were mainly undertaken by poor upland farmers who subsist on forest and farm products collected/produced by such activities.

In order to promote sustainable forest management in the country, the Government of Timor-Leste (GoTL) developed and adopted the Forest Policy in 2008, which aimed at achieving sustainable management of forest resources in the country. It has been however difficult for MAF and NDF to apply the necessary measures against issues that cause forest degradation due to the undeveloped legal system on forest management, insufficient institutional set-ups, and lack of human resources in MAF and NDF quantitatively and qualitatively. Given the fact that the financial situation of the country has improved thanks to the continuous revenue from the oil production in Timor Sea, the country has had an increased need for developing the capability of MAF/NDF and establishing a framework for forest management in the country using its own budget in a proper and effective manner.

Under such circumstances, the GoTL and the Japan International Cooperation Agency (JICA) agreed on the conduct of a development study named “The Study on Community-Based Integrated Watershed Management in Laclo and Comoro River Basins” in 2004. The study was aimed at the contribution to sustainable management and protection of forest resources in the Laclo and Comoro river basins, which were two (2) of the 10 critically degraded river basins in the country. In accordance with the agreement, JICA had carried out the development study with the implementation of pilot projects focusing on sustainable land use management, tree planting, sloping agricultural, and livelihood development in the target river basins, from November 2005 to March 2010. As a result of the study, a community-based integrated watershed management plan for the said river basins and watershed management planning guidelines were developed and submitted to the GoTL.

Having confirmed the effectiveness of the activities (sub-programs) proposed in the community-based integrated watershed management plan through the implementation of the pilot projects, the GoTL further requested JICA to assist itself in the establishment of an implementation mechanism and development of the capabilities of the government officials for community-based natural resource management. Both governments agreed to jointly implement a technical cooperation project named “The Project for Community-Based Sustainable Natural Resource Management” (hereinafter referred to as “the Project”) as described in the Record of Discussions (R/D) concluded in August 2010.

¹ Forest Resource Assessment and the State of the World's Forest (FAO), 2005

The Project started its activities with the consent of NDF for the overall work plan of the Project in January 2011, and has carried out its work plan since then. This is the Project Completion Report describing all the activities done and results made by the Project from the beginning of January 2011 to the middle of December 2015.

1.2 Outline of the Project

(1) Objectives of the Project

The project purpose (or the main objective of the Project) agreed upon by MAF and JICA is that “an operational mechanism² of CB-NRM at suco level is developed.” The project purpose is to be supported by the following three (3) outputs:

- Output 1: Land use plans are agreed upon and implemented by local residents in accordance with relevant suco regulations;
- Output 2: Capacities of the staff of the implementing agency and relevant stakeholders³ are enhanced to support CB-NRM; and
- Output 3: Effective processes with roles of stakeholders to support CB-NRM are identified.

On the other hand, the overall goal that the Project is expected to achieve in the post-project period is that “CB-NRM is practiced in the target area.” The latest project design matrix (PDM) of the Project is presented in **Table 1**.

(2) Targets of the Project

Overall, the Project targets the Laclo and Comoro river basins; however each project output focuses its activities on the different targets as shown below.

- a. The activities for Output 1 are to be carried out in six (6) sucos in the Noru and Bemos sub-watersheds in the Laclo and Comoro river basins, respectively, or three (3) sucos from the Noru sub-watershed and another three (3) from the Bemos sub-watershed, as shown in **Figure 1**.
- b. The capacity development activities for Output 2 are to be carried out for the staff of MAF, especially those assigned as the counterparts for the Project.
- c. The policy recommendations to be drafted under Output 3 are to be basically applicable to the Laclo and Comoro river basins, although it might be useful for other areas in the country when feasible.

(3) Project Period

Originally, the Project was scheduled to be implemented over 58 months from January 2011 to October 2015, but the project period was extended for about two (2) months to develop the publicity materials as recommended by the JICA and MAF joint evaluation team in the terminal evaluation of the Project in July 2015.

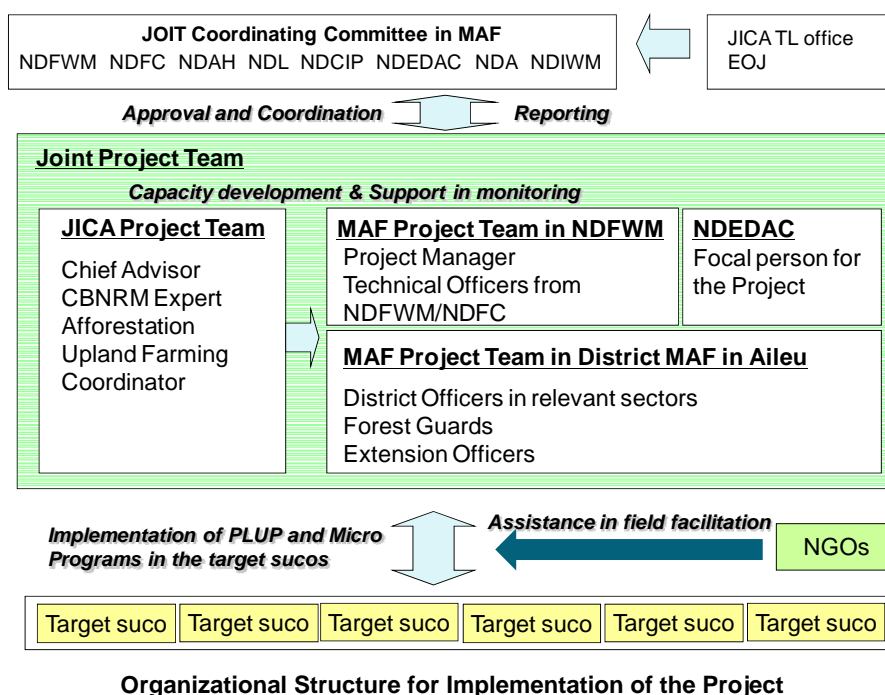
(4) Institutional Framework for Implementation of the Project

As described above, the Project is to be implemented jointly by JICA and MAF. From MAF side, the National Directorate of Forestry (NDF), which split into the National Directorate of Forest and Watershed Management (NDFWM) and the National Directorate

² Operational mechanism is embodied in the endorsed and practiced guidelines/manuals on the process with roles of stakeholders to support CB-NRM, technical manuals on CB-NRM, and the policy recommendations.

³ Personnel of relevant national directorates of Ministry of Agriculture and Fisheries (MAF), district directorates of MAF in the target area and other facilitating agencies, such as NGOs working in the target area.

of Forest Conservation⁴ in 2014, was responsible for implementation of the Project as the implementing agency among the national directorates of MAF. NDF was responsible for administrative and financial arrangements necessary for operations of the Project, especially the activities to be carried out by the MAF side, such as appointment of counterparts for the Project, allocation of budget and provision of facilities/equipment for activities of the counterparts, and coordination with relevant organizations including other national directorates of MAF. From October 2014, NDFWM has taken charge and been responsible for the implementation of the Project, as it holds the Department of Reforestation and Community and Urban Forestry and the Department of Soil and Water Conservation and Watershed Management. On the other hand, the JICA Project Team entrusted by JICA with the implementation of the Project has borne the responsibility to carry out the project activities relevant to the achievement of the project purpose as well as outputs. The Team also has had an obligation to make necessary arrangements for smooth operations of the project activities, i.e., employment of field facilitators for activities for Output 1, organization of seminars and meetings, procurement of project equipment, and provision of technical assistance to NDF/NDFWM as well as field facilitators. The organizational structure for implementation of the Project is illustrated below.



Organizational Structure for Implementation of the Project

1.3 Composition of this Report

This report or the Project Completion Report is composed of nine (9) chapters. This chapter, Chapter 1, introduces the background of the Project, followed by Chapter 2 which gives overviews of the Project. All the results and accomplishments made by the Project are described from Chapters 3 to 6. Chapter 7 summarizes the results of the terminal evaluation of the Project, while Chapter 8 highlights lesson learned including issues and concerns that the Project has faced in the course of the Project. The last chapter, Chapter 9 describes recommendations for the achievement of the overall goal of the project in a few years after the end of the Project.

⁴ NDF was divided into two (2) national directorates, namely National Directorate of Forest and Watershed Management and National Directorate of Nature Conservation, in October 2014, when the Ministry of Agriculture and Fisheries was restructured.

Chapter 2 Overview of the Project

2.1 Overall Work Plan

The Project has been implemented in accordance with the plan of operations (PO) of the Project, whose work plan agreed upon and approved by the Joint Coordination Committee (JCC) organized by JICA and MAF. The latest plan of operations (PO) of the Project for the entire period is shown in **Table 2**, and summarized below.

Activities		Summary of the Revised PO												Responsibility			
		TFY2011			TFY2012			TFY2013			TFY2014				TFY2015		
		10	JFY2011			JFY2012			JFY2013			JFY2014			JFY2015		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
Output 1: Land use plans are agreed upon and implemented by local residents in accordance with relevant suco regulations.																	
1-1 Organize initial consultative meetings in the Project sites.																	MAF CP (NDF and District), FA, JE
1-2 Conduct participatory village profiling in the Project sites.																	MAF CP (NDF and District), FA, JE
1-3 Conduct participatory land use planning with formulation of relevant suco regulations.																	MAF CP (NDF and District), FA, JE
1-4 Facilitate local residents in the Project sites to implement the micro-projects prioritized in line with the land use plans.																	MAF CP (NDF, District and other NDs), FA, JE
1-5 Monitor and evaluate CB-NRM in the Project sites.																	MAF CP (NDF, District and other NDs), FA, JE
1-6 Organize project information sharing seminars and/or workshops for information sharing among the target sucos and technical dissemination to local residents in the neighboring sucos.																	MAF CP (NDF, District and other NDs), FA, JE
1-7 Establish the watershed management council of the Noru watershed as a platform where the relevant sucos can work on CB-NRM for sustainable watershed management.																	MAF CP (NDF, District and other NDs), FA, JE
Output 2: Capacities of the staff of the Implementing agency and relevant stakeholders are enhanced to support CB-NRM.																	
2-1 Gather and compile useful CB-NRM practices and technologies applicable to the situation of the target area.																	MAF CP (NDF and District), JE
2-2 Plan and conduct the training on CB-NRM for the technical staff of the Implementing agency and relevant stakeholders.																	MAF CP (NDF and District), FA, JE
2-3 Organize feedback seminars on CB-NRM.																	MAF CP (NDF and District), JE
2-4 Organize planning seminars on CB-NRM.																	MAF CP (NDF and District), JE
2-5 Prepare technical manuals on CB-NRM.																	MAF CP (NDF and District), JE
Output 3: Effective processes with roles of stakeholders to support CB-NRM are identified.																	
3-1 Prepare an operational manual on the processes to support CB-NRM with roles of stakeholders, reflecting the results of monitoring and evaluation of CB-NRM, including the micro projects implemented in the project sites.																	NDF Staff, JE
3-2 Develop draft policy recommendations on CB-NRM.																	NDF Staff, JE
3-3 Organize a workshop to present the recommendations to relevant institutions and stakeholders.																	MAF CP (NDF), JE

MAF: Ministry of Agriculture and Fisheries
District: MAF District Office
JE: Japanese Expert(s)

NDF: National Directorate for Forestry
CP: Counterpart personnel
FA: Facilitating Agencies

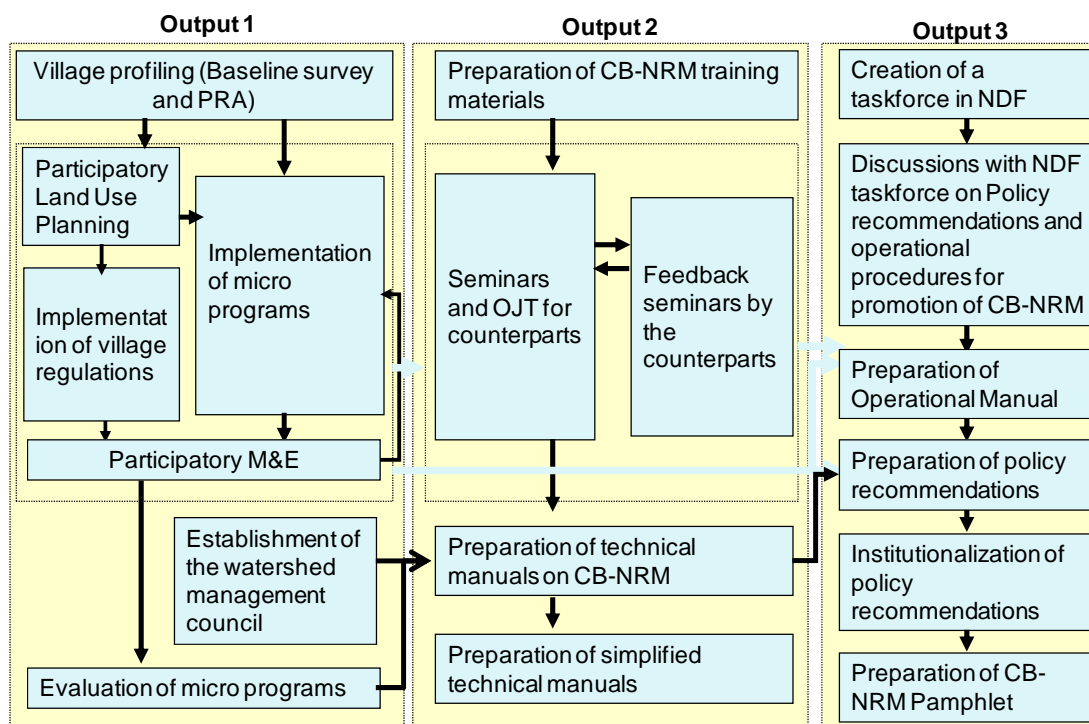
Other NDs: Other relevant National Directorates of MAF

CA: Chief Advisor, Co-CA: Co-Chief Advisor, UFT/LD Ex: Upland Farming Technologies/Livelihood Development Expert, A/R Ex: Afforestation/Reforestation Expert, PC: Project Coordinator, Local PC: Local Project Coordinator

Source: JICA Project Teams (2014)

2.2 Workflow of the Project

The overall workflow based on the latest PO is shown below.



Source: JICA Project Team (2015)

Overall Workflow of the Project

As the activities of the respective outputs are interrelated with each other, many of the have been carried out simultaneously.

2.3 Changes in the Project Design

There have been some changes in the project design to cope with changes in the situations and ensure the achievement of the project purpose over the course of the Project. The first major revision was made in March 2012 when the Project had the mid-term evaluation. It was further revised in May/June 2014 when JICA and MAF decided to establish a watershed management council of the Noru watershed. The following table shows the major changes made during the project period.

Narrative summary	Original PDM	Mar/Apr 2012	May/June 2014
Project Purpose	An operational mechanism of CB-NRM at suco level is developed.	Same as left.	Same as left.
Project Outputs			
Output 1	Land use plans are agreed upon and implemented by local residents in accordance with relevant suco regulations.	Same as left.	Same as left.
Output 2	Capacities of the staff of the Implementing agency and relevant stakeholders (*3) are enhanced to support CB-NRM.	The staff of the implementing agency and relevant stakeholders (*3) are trained to support CB-NRM.	Same as left.
Output 3	Effective processes with roles of stakeholders to support CB-NRM are identified.	Same as left.	Same as left.
Activities Under Output 1	1-1 Organize initial meetings in the Project sites. 1-2 Conduct participatory village profiling in the Project sites. 1-3 Conduct participatory land use planning with formulation of relevant suco regulations 1-4 Facilitate local residents in	1-1~1.5 Same as left 1-6 Organize field seminars and/or workshops for information sharing among the target sucos and technical dissemination to local residents in the neighboring sucos	1-1~1.6 Same as left 1.7 Establish the watershed management council of the Noru watershed as a platform where the relevant sucos can work on CB-NRM for sustainable watershed management.

Narrative summary	Original PDM	Mar/Apr 2012	May/June 2014
	<p>the Project sites to implement the micro-projects (*4) prioritized in line with the land use plans.</p> <p>1-5 Monitor and evaluate CB-NRM in the Project sites.</p> <p>1-6 Organize field seminars and/or workshops for technical dissemination to local residents in the neighboring sucos</p>		
Under Output 2	<p>2-1 Gather and compile useful CB-NRM practices and technologies applicable to the situation of the target area.</p> <p>2-2 Plan and conduct the training on CB-NRM for the technical staff of the Implementing agency and relevant stakeholders.</p> <p>2-3 Organize feedback seminars on CB-NRM.</p> <p>2-4 Prepare technical manuals on CB-NRM.</p>	<p>2-1&2-2 Same as left</p> <p>2-3 Organize <u>planning seminars on CB-NRM</u></p> <p>2-4 Organize feedback seminars on CB-NRM.</p> <p>2-5 Prepare technical manuals on CB-NRM.</p> <p><i>(2-3 & 2-4 in the original PDM were changed to 2-4 & 2-5 in the revised one.)</i></p>	2-1~2-5 Same as left.
Under Output 3	<p>3-1 Prepare a draft policy document on CB-NRM, implementation procedures for CB-NRM with roles of stakeholders, and reference book/guidebook for introduction of CB-NRM based on the evaluation of micro projects implemented in the Project sites and discussions with NDF as well as other relevant stakeholders.</p> <p>3-2 Organize planning seminars on CB-NRM.</p> <p>3-3 Develop a draft policy recommendation on CB-NRM.</p> <p>3-4 Organize a workshop to present the recommendation to relevant institutions and stakeholders.</p>	<p>3-1 Prepare <u>an operational manual on the processes to support CB-NRM with roles of stakeholders, reflecting the results of monitoring and evaluation of CB-NRM, including the micro-projects implemented in the Project sites.</u></p> <p>3-2 Develop <u>draft policy recommendations</u></p> <p>3-3 Organize a workshop to present the recommendations to relevant institutions and stakeholders.</p> <p><i>(3-2 in the original PDM was omitted from the activities.)</i></p>	3-1~3-3 Same as left.

Source: JICA Project Team (2015)

2.4 Progress of the Works

The JICA and MAF Project Teams have monitored the progress of the Project over the course of the Project by using the latest PO. **Table 3** shows the comparison between the work plan and accomplishments made by the Project Team. As indicated in **Table 3**, the Project has been generally implemented according to the schedule.

Chapter 3 Results of the Activities under Output 1

3.1 Village Profiling

3.1.1 Selection of Target Sucos

In January 2011, the JICA and MAF Project Teams evaluated the following 12 potential sucos located in the Noru and Bemos sub-watersheds to select the project target sucos for the activities under Output 1.

Potential Sucos located in the Priority Sub-watersheds

Target sub-watershed (River basin)	Villages located in the sub-watersheds
Noru Sub-watershed (Laclo river basin)	Faturasa, Fadabloco, Fahisoi (Liquidoe), Fahisoi, Hautoho, Maumeta
Bemos Sub-watershed (Comoro river basin)	Dare, Cotolau, Talitu, Tohumeta, Madabeno

Source: JICA Project Team (2011)

The following criteria were employed to evaluate the potential sucos with the aims of i) maximizing the project effectiveness, ii) avoiding any difficulties in the project implementation, iii) ensuring the project sustainability, and iv) maintaining the efficiency of the micro programs.

- a. Geographical contiguity of the sucos
- b. Manageability of micro programs
- c. Acceptability of the Project by the communities
- d. Accessibility to the sucos

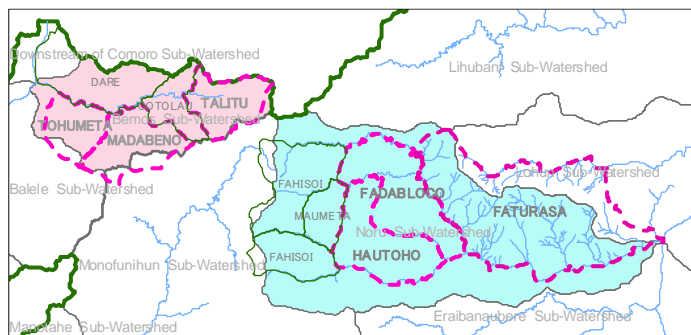
As a result, the following six (6) sucos were selected as the target villages. **Appendix-3.1** stored in the CD attached to this report gives more details of the result of the evaluation.

Noru Sub-watershed

- a. Suco Faturasa
- b. Suco Fadabloco
- c. Suco Hautoho

Bemos Sub-watershed

- a. Suco Tohumeta
- b. Suco Madabeno
- c. Suco Talitu



3.1.2 Consultation with Local Communities in the Target Sucos about the Project

Prior to the field activities in the target sucos, the JICA and MAF Project Teams jointly held the consultation meetings at the target sucos. Local communities in the sucos were sounded out about their willingness to participate in the Project in the meetings held on the following dates.

February 1, 2011	Suco Fadabloco and Faturasa
February 2, 2011	Suco Talitu and Tohumeta
February 7, 2011	Suco Madabeno
February 10, 2011	Suco Faturasa

In general, local communities in the target sucos accepted the ideas of the Project and showed their willingness to participate in the project activities. Some highlights in the meetings are summarized below.

- Chefs de Suco of Suco Fababloco and Hautoho stated that the micro project would be good opportunity for their villages to enhance the communities' capacities to improve their livelihoods.
- In Suco Talitu, the current and former Chefs de Suco appreciated the possible interventions by the Project, namely, i) introduction of the village regulations (or Tara Bandu regulations) and ii) provision of training courses on farming techniques, such as those of rehabilitation of aged coffee plantations and sustainable upland farming.
- Some villages in Suco Tohumeta stated that it would be difficult for them to participate in the micro programs without any payment although they understood that the micro programs would be effective in developing their capacities based on the experiences of the pilot projects implemented by the former JICA study. The JICA and MAF Project Teams clarified and stressed that the micro programs would not include any payment scheme but help the livelihoods of local communities in the sucos directly and/or indirectly like as the pilot projects implemented by the former JICA Study.
- Villagers in Suco Madabeno showed their willingness to receive the support from the Project even without any payment, and if anything, they expressed rather strong interest in having training/technical assistance in planting seedlings, preventing landslides, and strengthening the village regulations.
- The participants in Suco Faturasa stated that they were keen to participate in the micro programs as they appreciated the support given by the former JICA Study and the NGO for development and implementation of the village regulations. Accordingly, there has been no forest fire, illegal cutting or any other illegal activity in the sucos since the village regulations were in place in 2008.

3.1.3 Village Profiling Survey (Baseline Survey and PRA) in the Target Sucos

The two NGOs, USC Canada-Timor Leste, which was renamed RAEBIA Timor-Leste in 2014, and Haralare Foundation, hired by the JICA Project Team conducted the village profiling survey composed of the baseline survey and PRA in the target sucos in 2011.

The baseline survey was aimed at the collection of the socio-economic baseline data of the target sucos, while the focus of PRA was put on the collection of data and information of natural resource management and potential of income generation in the sucos. The following tables show the data and information that both surveys aimed to collect in the target villages.

Data and Information collected through the Baseline Survey (Household Interview Survey)

<u>General information of household</u> <ul style="list-style-type: none"> • Information of family members on name, age, sex, educational background, occupation • History of household
<u>Household economy, food consumption, and basic human need</u> <ul style="list-style-type: none"> • Sources of income and amount of income • Cash expenditure • Food security • Consumption of firewood (source, volume of firewood, etc.) • Existing lending scheme_ • Water source for domestic uses
<u>Agricultural and forestry production</u> <ul style="list-style-type: none"> • Land holding (location, size, type of land use) • Land use (shifting cultivation, lowland paddy, upland crops, tree crops, etc.) • Crop Production • Uses of farm inputs

- Types and number of livestock
- Ways of raising/feeding animals
- Harvest of NTFPs and timber products
- Other livelihood activities
- Marketing of agricultural and forest products

Data and Information collected through the Baseline Survey (Household Member Survey)

<u>Extent of participation of household members in day-to-day activities</u>
• Home activities, farming, slash and burn activities, livestock raising, fishing, forestry, post-harvest and marketing, other businesses, religious and cultural activities, etc.
<u>Concerns/Priority of members on:</u>
• Livelihood activities
• Natural resource management
• Health,
• Water supply
• Agriculture
• Education
• Infrastructure, etc.

Data and Information collected through the PRA Sessions

Information	PRA Sessions related to the information
Present land use and major resources in the village	Resource mapping
Land use and specific features in land use in different topographic conditions	Transect walking
Seasonal changes in agricultural and socio-economic activities and Seasonal issues and difficulties in living in the village	Seasonal calendar
Prevailing farming practices especially in shifting cultivation	Group discussions on shifting cultivation
Present status of land in the village	Group discussions on present land use
Major natural resources and agricultural products important for livelihood improvement and market conditions of the products	Group discussions on natural resources for livelihood improvement
Major government and non-governmental organizations relevant to the village	Venn diagram of existing institutions/organizations
Past and current customary rules/norms governing forest and natural resource management in the village	Plenary discussions on past and current customary rules/norms

Source: JICA Project Team (2011)

The JICA Project Team analyzed all the data and information collected in the survey to assess the characteristics of the target sucos. Profiles of the sucos as well as resource available in the villages are compiled in a report as shown in **Appendix-3.2** stored in the CD attached to this report. The characteristics of the target sucos are summarized below.

Summary of Characteristics of the Target Sucos

Suco	Faturasa	Fadabloco	Hautoho	Madabeno	Talitu	Tohumeta
1. General Features						
1.1 No. of Sub-villages (Aldeia)	4	4	3	3	6	4
1.2 Area (km ²) <1	48.22	17.64	15.22	7.67	11.54	22.82
1.3 Population in 2014 <2	1,220	1,600	600	813	572	1,327
1.4 Household in 2014 <2	244	320	120	160	335	228
1.5 Distance from Dili (Driving hrs)	3 hours	2 hours	2 hours	1 hour	1.5 hours	1 hour
1.6 Food shortage period	Nov.-Feb.	Oct.-Feb.	Nov.-Feb.	Oct.-Feb.	Oct.-Feb.	Jan.-Feb.
2. Agricultural Condition						
2.1 Average Land holding size (ha/HH)						
- Permanent farm	2.0	1.9	0.9	0.7	1.2	0.5
- Coffee plantation	0.7	1.5	1.4	1.4	1.7	0.5
- Area for shifting cultivation	0.03	N.A.	N.A.	0.4	1.5	1.1
2.2 Major crops grown in the area	Maize, cassava, sweet potato, beans, and orange			Maize, cassava, beans, coffee	Maize, cassava, coffee, clove	Maize, cassava, vegetables, coffee
2.3 Average yields of crops (ton/ha)						
- Maize	0.5	0.5	0.5	0.4	0.2	0.1
- Cassav	0.5	0.4	0.6	0.3	0.4	0.4
- Sweet potato	0.4	0.3	0.5	0.3	0.3	0.1
- Coffee	0.2	0.2	0.2	0.4	0.2	0.1

Suco	Faturasa	Fadabloco	Hautoho	Madabeno	Talitu	Tohumeta
- Vegetables	-	-	-	-	-	0.2
2.4 Ratio of household who own animals (%)						
- Cattle	45	33	22	40	15	25
- Goat	70	73	52	60	47	55
- Pig	100	95	93	70	77	88
3. Natural Resource Management						
3.1 Use of firewood						
- Ratio of household	100%	100%	100%	100%	100%	100%
- Frequency of collection (times/wk)	3	3	3	4	4	2
- Volume of collection (bundle/time)	3.6	2.9	4.4	2.5	2.5	2.4
3.2 NTFPs	Honey, Bamboo	Bamboo	Bamboo	Bamboo	Tua mutin	Tua mutin

Note: <1 Data are from ALGIS.

<2 Data are updated by the statistic data in 2014.

Source: JICA Project Team (2015)


3.2 Participatory Land Use Planning




After the village profile survey, the same NGOs hired by the JICA Project Team carried out the following activities with the technical assistance of the JICA Project Team in 2011 and 2012 to help village leaders and communities in the target sucos develop a future land use plan and village regulations in a participatory manner.




- i) Organization of a working group for PLUP
- ii) Conduct of an exposure visit
- iii) Present land use mapping
- iv) Future land use planning (Discussions on future land use options)
- v) Review of the customary rules or existing village regulations
- vi) Discussions on the draft village regulations
- vii) Review of the draft village regulations
- viii) Consultations with local communities about the draft village regulations
- ix) Finalization of the village regulations
- x) Organization of a tara bandu ceremonie

More details of the above-listed activities are described below.

Activities carried out in the Course of PLUP

Activity	Results																					
Organization of a working group	Each village organized a working group composed of 20~25 persons including the members of suco council, elders, and other key informants in the sucos. The lists of the members and roles/responsibilities of the members of the working groups in Suco Fadabloco, Talitu and Madabeno are shown in Appendix-3.3 stored in the CD attached to this report.																					
Exposure visit	<p>Prior to the conducts of the PLUP activities in the sucos, the members of the working groups of the target sucos were taken to the village where the village regulations had been already in place so that the members could get a clear picture of the process and outputs of the PLUP activities through dialogues with the predecessors. The following table shows the dates of the exposure visits and the number of the participants in the visits.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="3" style="text-align: center;">Exposure Visits arranged</th> </tr> <tr> <th>Suco</th> <th>Date of visit</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td>Fadabloco</td> <td>June 9, 2011</td> <td>31 persons</td> </tr> <tr> <td>Talitu</td> <td>June 9, 2011</td> <td>21 persons</td> </tr> <tr> <td>Madabeno</td> <td>June 9, 2011</td> <td>20 persons</td> </tr> <tr> <td>Hautoho</td> <td>May 29, 2012</td> <td>17 persons</td> </tr> <tr> <td>Tohumeta</td> <td>May 29, 2012</td> <td>11 persons</td> </tr> </tbody> </table> <p style="text-align: center;">Source: JICA Project Team (2012)</p> <div style="text-align: right;">  <p style="text-align: center;">Exposure Visit @ Faturasa</p> </div>	Exposure Visits arranged			Suco	Date of visit	No. of participants	Fadabloco	June 9, 2011	31 persons	Talitu	June 9, 2011	21 persons	Madabeno	June 9, 2011	20 persons	Hautoho	May 29, 2012	17 persons	Tohumeta	May 29, 2012	11 persons
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Present land use mapping	The working groups except that of Suco Faturasa made the present land use map using aerial photos covering their villages with the assistance of the NGOs and JICA Project Team. Dates of the																					

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	<p>meetings and numbers of members who participated in the meetings are shown below.</p> <p style="text-align: center;">Present Land Use Mapping</p> <table border="1"> <thead> <tr> <th>Suco</th> <th>Date of meetings</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td>Fadabloco</td> <td>June 14 & 15, 2011</td> <td>68 member in total</td> </tr> <tr> <td>Talitu</td> <td>June 14 & 15, 2011</td> <td>45 members in total</td> </tr> <tr> <td>Madabeno</td> <td>June 16 & 17, 2011</td> <td>38 members in total</td> </tr> <tr> <td>Hautoho</td> <td>June 12 & 13, 2012</td> <td>38 members in total</td> </tr> <tr> <td>Talitu</td> <td>June 6 & 7, 2012</td> <td>51 members in total</td> </tr> </tbody> </table> <p>Source: JICA Project Team (2012)</p> <p>The working groups made the present land use maps of the villages taking the following steps:</p> <ol style="list-style-type: none"> i) Confirmation and/or demarcation of the village boundaries; ii) Demarcation of the aldeia boundaries; iii) Delineation of roads, footpaths, and rivers; iv) Identification of the locations of major village facilities and traditional places; v) Demarcation of the areas for forest, coffee plantation, and farming; vi) Classification of forests by species, size of trees, and density of trees; and vii) Identification of the areas for firewood collection and grazing.  <p style="text-align: center;">Present Land Use Mapping @ Madabeno</p>	Suco	Date of meetings	No. of participants	Fadabloco	June 14 & 15, 2011	68 member in total	Talitu	June 14 & 15, 2011	45 members in total	Madabeno	June 16 & 17, 2011	38 members in total	Hautoho	June 12 & 13, 2012	38 members in total	Talitu	June 6 & 7, 2012	51 members in total			
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Future land use planning	<p>The same working groups discussed how to use and manage the lands within the territories of the sucos with the assistance of the NGOs and JICA Project Team in the following meeting.</p> <p style="text-align: center;">Future Land Use Planning</p> <table border="1"> <thead> <tr> <th>Suco</th> <th>Date of meetings</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td>Fadabloco</td> <td>June 22 & 23, 2011</td> <td>43 member in total</td> </tr> <tr> <td>Talitu</td> <td>June 21 & 22, 2011</td> <td>47 members in total</td> </tr> <tr> <td>Madabeno</td> <td>June 23 & 24, 2011</td> <td>45 members in total</td> </tr> <tr> <td>Hautoho</td> <td>June 15 & 19, 2012</td> <td>32 members in total</td> </tr> <tr> <td>Tohumeta</td> <td>June 12 & 14, 2012</td> <td>41 members in total</td> </tr> </tbody> </table> <p>Source: JICA Project Team (2012)</p> <p>In the meetings, all the working groups decided to: i) protect the existing dense natural forests; ii) improve/rehabilitate the degraded natural forests; iii) use the severely degraded forests for production purposes; and iv) convert the existing shifting cultivation areas into coffee plantations, orchards, and permanent farms with soil conservation measures/agroforest techniques. As a result of the discussions, the future land use maps of the target sucos were also developed by the working groups.</p> <p>In Suco Faturasa, the village committee organized for implementation of the village regulations in 2007 confirmed the effectiveness of the future land use plan prepared in 2008 and agreed not to revise the same.</p>  <p style="text-align: center;">Future Land Use Planning @ Hautoho</p>	Suco	Date of meetings	No. of participants	Fadabloco	June 22 & 23, 2011	43 member in total	Talitu	June 21 & 22, 2011	47 members in total	Madabeno	June 23 & 24, 2011	45 members in total	Hautoho	June 15 & 19, 2012	32 members in total	Tohumeta	June 12 & 14, 2012	41 members in total			
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Review of the customary rules/ existing village rules	<p>Each working group had a one-day meeting to review and evaluate the past and current rules in the sucos. The working groups of Sucos Fadabloco, Talitu, and Hautoho reviewed and evaluated the customary rules and systems in the past, while those of Suco Faturasa, Madabeno, and Tohumeta reviewed and discussed the existing village regulations developed/put in place recently.</p> <p style="text-align: center;">Review of the Customary Rules/Existing Village Rules</p> <table border="1"> <thead> <tr> <th>Suco</th> <th>Date of meetings</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td>Faturasa</td> <td>June 17, 2011</td> <td>22 members</td> </tr> <tr> <td>Fadabloco</td> <td>June 28, 2011</td> <td>22 members</td> </tr> <tr> <td>Talitu</td> <td>June 28, 2011</td> <td>23 members</td> </tr> <tr> <td>Madabeno</td> <td>June 30, 2011</td> <td>24 members</td> </tr> <tr> <td>Hautoho</td> <td>June 21, 2012</td> <td>17 members</td> </tr> <tr> <td>Tohumeta</td> <td>June 20, 2012</td> <td>16 members</td> </tr> </tbody> </table> <p>Source: JICA Project Team (2012)</p> <p>The working groups also assessed the effectiveness of the customary rules/existing rules as well as necessary revisions to be made in the customary/existing village rules.</p>  <p style="text-align: center;">Review of Existing Village Rules @ Madabeno</p>	Suco	Date of meetings	No. of participants	Faturasa	June 17, 2011	22 members	Fadabloco	June 28, 2011	22 members	Talitu	June 28, 2011	23 members	Madabeno	June 30, 2011	24 members	Hautoho	June 21, 2012	17 members	Tohumeta	June 20, 2012	16 members
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Discussions on the village regulations	<p>Based on the discussions made in the future land use planning and review of the customary rules/existing village rules in the sucos, the JICA Project Team prepared the draft village regulations of Suco Talitu, Fadabloco, and Madabeno in advance of the meetings. In Sucos Faturasa and Tohumeta, the working groups only discussed the parts that they intended to change in the existing village regulations developed in 2008. On the other hand, the working group in Sucos Hautoho discussed its village regulations referring those of Suco Fadabloco. The following table shows the dates of the meetings and numbers of participants in the meetings held at the respective sucos.</p>																					

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Review of the draft village regulations to village leaders	<p>The NGOs made a presentation of the draft village regulations to the working groups on the following dates and helped the members of the working groups, especially village leaders, review and check the draft regulations if there was no discrepancy between the draft ones and their ideas. After the meetings, the JICA Project Team revised the draft village regulations based on the comments and suggestions given by the members.</p> <p style="text-align: center;">Review of the Draft Village Regulations</p> <table border="1"> <thead> <tr> <th>Suco</th> <th>Date of meetings</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td>Faturasa</td> <td>June 24, 2011</td> <td>23 persons</td> </tr> <tr> <td>Fadabloco</td> <td>July 14, 2011</td> <td>20 persons</td> </tr> <tr> <td>Talitu</td> <td>July 18, 2011</td> <td>23 persons</td> </tr> <tr> <td>Madabeno</td> <td>July 14, 2011</td> <td>21 persons</td> </tr> <tr> <td>Hautoho</td> <td>June 26, 2012</td> <td>21 members</td> </tr> <tr> <td>Tohumeta</td> <td>June 26, 2012</td> <td>18 members</td> </tr> </tbody> </table> <p>Source: JICA Project Team (2012)</p> <p>It was also agreed among the members of the working groups that they would explain the draft village regulations and future land use plans to other communities in the sucos in the consultation meetings held at the aldeia level.</p>  <p style="text-align: center;">Review of Draft Village Regulations @ Faturasa</p>	Suco	Date of meetings	No. of participants	Faturasa	June 24, 2011	23 persons	Fadabloco	July 14, 2011	20 persons	Talitu	July 18, 2011	23 persons	Madabeno	July 14, 2011	21 persons	Hautoho	June 26, 2012	21 members	Tohumeta	June 26, 2012	18 members																								
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Consultations with other communities at the aldeia level	<p>The working groups with the assistance of the NGOs held consultation meetings at the aldeia level and explained the draft village regulations with future land use plans to local communities in the respective sucos.</p> <p style="text-align: center;">Consultation Meetings at the Aldeia Level</p> <table border="1"> <thead> <tr> <th>Suco</th> <th>No. of meetings</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td>Faturasa</td> <td>4 meetings</td> <td>204 persons in total</td> </tr> <tr> <td>Fadabloco</td> <td>4 meetings</td> <td>327 persons in total</td> </tr> <tr> <td>Talitu</td> <td>4 meetings</td> <td>257 persons in total</td> </tr> <tr> <td>Madabeno</td> <td>3 meetings</td> <td>217 persons in total</td> </tr> <tr> <td>Hautoho</td> <td>3 meetings</td> <td>177 persons in total</td> </tr> <tr> <td>Tohumeta</td> <td>2 meetings</td> <td>69 persons in total</td> </tr> </tbody> </table> <p>Source: JICA Project Team (2012)</p> <p>In the consultation meetings, the members of the working groups responded all the comments and questions raised by the participants with the assistance of the NGOs. The meetings were good opportunities not only for the communities to become aware of the regulations but also for the leaders to deepen their understanding of the same.</p>  <p style="text-align: center;">Consultation Meeting @ Fadabloco</p>	Suco	No. of meetings	No. of participants	Faturasa	4 meetings	204 persons in total	Fadabloco	4 meetings	327 persons in total	Talitu	4 meetings	257 persons in total	Madabeno	3 meetings	217 persons in total	Hautoho	3 meetings	177 persons in total	Tohumeta	2 meetings	69 persons in total																								
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Finalization of the village regulations	<p>The JICA Project Team and the NGOs finalized the village regulations of the target sucos based on the discussions in the consultation meetings with local communities. The final versions of the village regulations with future land use plans of the respective sucos are shown in Appendix-3.4 stored in the CD attached to this report.</p>																																													

Activity	Results																					
Tara Bandu ceremonies at the target villages	<p>In order to publicly announce the village regulations and future land use plans to local communities in and around the sucos, each target sucos held the Tara Bandu ceremony as shown below.</p> <p style="text-align: center;">Tara Bandu Ceremonies</p> <table border="1"> <thead> <tr> <th>Suco</th> <th>Date of meetings</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td>Faturasa</td> <td>July 28, 2011</td> <td>Over 150 persons</td> </tr> <tr> <td>Fadabloco</td> <td>August 3, 2011</td> <td>About 300 persons</td> </tr> <tr> <td>Talitu</td> <td>August 18, 2011</td> <td>Over 100 persons</td> </tr> <tr> <td>Madabeno</td> <td>August 25, 2011</td> <td>Over 100 persons</td> </tr> <tr> <td>Hautoho</td> <td>August 14, 2012</td> <td>Over 400 persons</td> </tr> <tr> <td>Tohumeta</td> <td>September 2, 2012</td> <td>About 70 persons</td> </tr> </tbody> </table> <p>Source: JICA Project Team (2012)</p> <p>In addition to local communities, representatives of the relevant government offices, such as MAF, NDF, District Administrative Office, Sub-district Administrative Offices, and National Directorate of Environment also attended the ceremonies.</p>	Suco	Date of meetings	No. of participants	Faturasa	July 28, 2011	Over 150 persons	Fadabloco	August 3, 2011	About 300 persons	Talitu	August 18, 2011	Over 100 persons	Madabeno	August 25, 2011	Over 100 persons	Hautoho	August 14, 2012	Over 400 persons	Tohumeta	September 2, 2012	About 70 persons
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Tara Bandu Ceremony @ Talitu

Source: JICA Project Team (2015)

3.3 Implementation of the Village Regulations

Although the village regulations were put in place in the target sucos after the Tara Bandu ceremony, it was still difficult for village leaders (or village committees for the village regulations) of the target villages to govern the sucos using the village regulations. There was a need to familiarize them with the village regulations and enhance their understanding of the village regulations among not only village leaders but also other local communities in the target sucos, so that the village regulation could be institutionalized as effective tools for governing the sucos in general and protecting/managing natural resources in the sucos in particular.

To this end, the NGOs with the assistance of the JICA Project Team have helped the village committees of the village regulations or village leaders in the target sucos hold the following meetings on a regular basis to enable them to use the village regulations to solve/settle issues happening in the villages.

- i) Monthly monitoring meeting at the suco level
- ii) Bi-monthly or quarterly information sharing meeting at the aldeia level

3.3.1 Monthly Monitoring Meetings at the Suco Level

The village committees of the target villages have periodically held the monthly monitoring meetings to monitor the implementation of the village regulations in the sucos with the assistance of the NGOs. The following table shows the total number of the meetings and the numbers of the participants attending the meetings in the target sucos over the course of the Project.

Number of Monthly Monitoring Meetings held at the Suco Level				
Suco	2011/2012	2012/2013	2013/2014	2014/2015
Faturasa	4	5	6	8
Fadabloco	6	6	7	9
Talitu	3	4	5	4
Madabeno	4	4	7	8
Hautoho	-	3	6	7
Tohumeta	-	2	5	5

Source: Halarae Foundation and RAEBIA Timor-Leste(2015)

In the meetings, Chefs de Aldeia or representatives from aldeias reported problems that they faced in the previous month and actions that they took to solve such cases. The members also discussed any pending issues to figure out possible actions to be taken for solution with the assistance of the NGOs. Memos of some of the monthly monitoring meetings held at the target sucos are shown in **Appendix-3.5** stored in the CD attached to

this report. The numbers of cases relating to natural resource management, which have been observed since the village regulations were in place, are summarized below.

Number of Illegal Cases happening in the Target Sucos							
Suco	Faturasa	Fadabloco	Talitu	Madabeno	Hautoho	Tohumeta	Total
Forest fire							
2011/2012	0	5	2	2	-	-	9
2012/2013	1	4	3	3	1	2	14
2013/2014	6	2	0	0	2	0	10
2014/2015	3	6	0	4	4	2	19
Sub-total	10	17	5	9	7	4	52
Illegal cutting							
2011/2012	0	3	0	0	-	-	3
2012/2013	1	3	0	0	1	0	5
2013/2014	2	1	0	4	0	2	9
2014/2015	1	3	1	1	0	1	7
Sub-total	4	10	1	5	1	3	24
Crop damage							
2011/2012	2	5	1	0	-	-	8
2012/2013	7	4	2	1	1	0	15
2013/2014	1	4	2	7	0	3	17
2014/2015	4	8	3	4	1	4	24
Sub-total	14	21	8	12	2	7	64

Note: <1 The village committees decided to hold a village-level monthly meeting at the aldeia on a rotation basis so that local community could be familiarized with the village regulations.

Source: Halarae Foundation and RAEBIA Timor-Leste(2015)

Although illegal cases, namely, forest fires, illegal cutting, and crop damage caused by grazing animals, have happened in the target sucos, village leaders and local communities in the sucos judged that the incidence of the illegal cases has been drastically reduced since the village regulations were in place.

3.3.2 Information Sharing Meetings at the Aldeia Level

In 2013 and 2014, the NGOs arranged the information sharing meetings at the aldeia level to share the results of the monthly monitoring meetings with local communities in the target sucos. From April 2014, the NGOs and village leaders decided to have the monthly monitoring meetings at aldeias on a rotation basis in stead of holding the information sharing meetings to lessen the burden of village leaders but disseminate the information to local communities at the aldeia level efficiently and effectively. The following table shows the numbers of the information sharing meetings held at the respective target sucos in 2013/2014.

Information Sharing Meetings held at the Aldeial Level in 2013/2014			
Suco	No. of meetings	Period	No. of participants
Faturasa	11 times	Sep. 2013-Sep. 2014	313 members in total
Fadabloco	9 times	Sep. – Dec. 2014	281 members
Madabeno	10 times	Sep. 2013 – Feb. 2014	221 members
Tohumeta	3 times	Jul. 2014	58 members

Source: Halarae Foundation (2014) and RAEBIA (2014)

The information sharing meetings became good opportunities not only for the committee to raise awareness of the village regulations among local communities but also for communities to share their problems, which were often not reported by chefs de aldeia in the monthly monitoring meetings, with other committee members.

3.4 Selection of Priority Micro Programs

After PLUP, village leaders and other communities had the following consecutive workshops/meetings with the assistance of the NGOs and JICA Project Team to select and prioritize the potential micro programs suitable in the local settings of the sucos.

Workshops for Selection of Micro Programs

Workshop	Main Aims	Activities	
1 st Workshop	<ul style="list-style-type: none"> - Enable local communities to get a clear picture of potential micro programs that can be implemented in the village. - Confirm the preferable micro programs among local communities. 	<ul style="list-style-type: none"> - Explain the objectives and process of micro programs - Present potential micro programs that can be implemented. - Organize separate meetings with male and female participants or villages from different aldeias. 	
2 nd Workshop	<ul style="list-style-type: none"> - Enable local communities to evaluate the preferable micro programs selected in the 1st workshop. - Help local communities select two to three priority micro programs based on the evaluation. 	<ul style="list-style-type: none"> - Explain the evaluation criteria for selection of micro programs to the participants. - Assist the participants in the evaluation of the preferable micro programs using the evaluation criteria. - Assist them in the selection of two or three priority micro programs. 	
Consultation meetings	<ul style="list-style-type: none"> - Enable village leaders to explain the process of selection of the priority micro programs. - Enable other communities to understand the outline and scope of the priority micro programs. 	<ul style="list-style-type: none"> - Assist village leaders in explaining the process that they have taken for selection of the priority micro programs. - Facilitate their discussions among communities to enable them to deepen their understanding of the priority micro programs. 	
3 rd Workshop	<ul style="list-style-type: none"> - Help local leaders understand the scopes of the priority micro programs with roles of key stakeholders including communities. 	<ul style="list-style-type: none"> - Discuss the provisional scope of the priority micro programs as well as roles and responsibilities of key stakeholders in the implementation of the micro programs. 	

Source: JICA Project Team (2015)

Each target suco held the above-listed workshops and meetings on the following dates.

Dates of and No. of Participants in the Meetings

Suco	1 st Workshop		2 nd Workshop		Consultation meetings <1		3 rd Workshop	
	Date	Participants	Date	Participants	Date	Participants	Date	Participants
Faturasa	Oct. 05, 2011	22 persons	Oct. 12, 2011	13 persons	Oct. 20, 2011	109 persons	Nov.08, 2011	11 persons
Fadabloco	Oct. 06, 2011	21 persons	Oct. 14, 2011	16 persons	Oct. 21 2011	98 persons	Oct. 25 2011	35 persons
Madabeno	Oct. 05, 2011	25 persons	Oct. 18, 2011	18 persons	Oct. 24, 2011	88 persons	Nov.25, 2011	16 persons
Talitu	Oct. 06, 2011	20 persons	Oct. 20, 2011	25 persons	Oct. 28 & Nov 11 2011	86 persons	Nov. 23, 2011	16 persons-
Hautoho	Nov. 29, 2012	38 persons	Dec. 04, 2012	39 persons	Dec. 18 & 19, 2012	166 persons	Dec. 12, 2012	40 persons
Tohumeta	Nov. 30, 2012	28 persons	Dec. 11, 2012	25 persons	Jan. 16, 2012	37 persons	Dec. 15, 2012	14 persons

Remark: <1 The consultation meetings in Hautoho and Tohumeta were held after discussions on the provision scopes of the priority micro programs in response to the request from village leaders.

Source: JICA Project Team (2015)

Through a series of the meetings, the target villages and the JICA and MAF Project Team agreed on the implementation of the following micro programs.

Suco Faturasa

- i) Sustainable Upland Farming Promotion with Community-Based Seed Extension Micro Program (SUFP with CBSE-MP)

Sucos Fadabloco and Hautoho

- i) Sustainable Upland Farming Promotion with Community-Based Seed Extension Micro Program (SUFP with CBSE-MP)
- ii) Income Generating/Livelihood Development Micro Program (IG/LD-MP)

Sucos Talitu and Madabeno

- i) Seedling Production and Tree Planting Promotion Micro Program (SPTPP-MP)
- ii) Sustainable Upland Farming Promotion Micro Program (SUFP-MP)

Suco Tohumeta

- i) Sustainable Utilization of Backyard/Permanent Farm Micro Program (SUB/PF-MP)

The provisional scopes of the respective micro programs agreed on with communities in the target sucos are shown in **Appendix-3.6** stored in the CD attached to this report.

3.5 Implementation of the Micro Programs in the Target Village

The micro programs had been implemented in a phased manners in consideration of the NGOs' capacity; therefore, the target sucos were divided into two (2) groups: Batch 1, in which the micro programs started in the 1st quarter of 2012, and Batch 2, where the micro programs began one year after those of batch 1 (in the 1st quarter of 2013). The overall implementation schedule of the micro programs in the target sucos is shown below.

Batch	Suco	2012				2013				2014				2015	
		1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q
Batch 1	Faturasa, Fadabloco, Talitu & Madabeno														
Batch 2	Hautoho & Tohumeta														

Source: JICA Project Team (2015)

Each micro program comprised two (2) cycles of full-packaged Farmers Field Schools/hands-on training courses, which covered all the techniques introduced in the course of the micro program. The major activities commonly carried out in the micro programs are shown below.

- i) Preparatory works in the 1st year
- ii) 1st year FFSs and technical assistance
- iii) Participatory evaluation and planning of an annual work plan
- iv) Preparatory works in the 2nd year
- v) 2nd year FFSs and technical assistance
- vi) Participatory evaluation and planning of an annual work plan

Moreover, SUFP-MP/SUFP with CBSE-MP/SUB/PF-MP employed a two-step extension approach to disseminate key techniques of the micro programs to the majority of the members. In the 2nd year, the beneficiaries' groups formed several sub-groups under the groups by dividing their members based on the locations of farms of houses and conducted one cycle of FFSs/hands-on training on selected key techniques (five techniques in total) at one of the members' plots (which were called the "sub-group demonstration plot"). By this arrangement, the members had practiced all the techniques of sustainable upland farming

at the demonstration plots and also some key techniques at sub-group demonstration plots in the 2nd year. The strategy behind the approach was to encourage the members to help each other introduce the key techniques in their own farms according to the customary collective working system (so-called “Harosan system”), where a group of farmers whose farms are located nearby help each other and work together when necessary. The approach had been proved effective in encouraging the members to apply key techniques to their own farms.

3.5.1 Results of the First (1st) Batch Sucos




(1) Preparatory Works

The following activities were carried out by the NGOs in the 1st batch sucos as preparatory works.

- Organization of the beneficiaries’ groups at the aldeia level
- Conduct of a study tour for key members of the beneficiaries’ group
- Participatory planning of a work plan of the micro program

The result of the preparatory works are summarized below.

Summary of the Preparatory Works

Activities	Outline of the Activities	Results of the Activities
<p>Organization of the beneficiaries’ groups at the waters</p> 	<ul style="list-style-type: none"> ◆ Held meetings with villages to provide guidance on introduce the outline of the micro programs and select members of the beneficiaries’ groups of the micro programs with introduction of criteria/eligibility for members. ◆ Held meetings with selected villages (or members of the beneficiaries’ groups) to discuss and determine visions and missions of the beneficiaries’ groups and roles and responsibilities of the respective members. 	<ul style="list-style-type: none"> ◆ Six (6) beneficiaries’ groups composed of 160 members were formed for SUFP with CBSE-MP in Faturasa. ◆ Four (4) beneficiaries’ groups composed of 160 members were formed for SUFP with CBSE-MP in Fadabloco ◆ Four (4) beneficiaries’ groups composed of 40 women were formed for IG/LD-MP in Fadabloco ◆ Six (6) beneficiaries’ groups composed of 302 members were formed for SUFP-MP and SPTPP-MP in Madabeno ◆ Four (4) beneficiaries’ groups composed of 145 members were formed for SUFP-MP and SPTPP-MP in Talitu ◆ Resolutions of the respective beneficiaries’ groups prepared by the beneficiaries’ groupups in the target sucos with the assistance of the NGOs and JICA Project Team are as shown in Appendix-3.7 stored in the CD attached to this report.
<p>Exposure Visits/ Study Tours for the Beneficiaries’ Groups</p> 	<ul style="list-style-type: none"> ◆ Arranged and held study tours for core members of the beneficiaries’ groups to visit villages where similar activities had been already introduced and applied by communities, so that members could deepen understandings of activities and techniques of the micro programs. ◆ Held feedback meetings where core members who took part in the study tour could share thier finding with other members. 	<ul style="list-style-type: none"> ◆ A total of 156 members of SUFP-MP/SUFP with CBSE-MP in Sucos Madabeno, Talitu, Faturasa, and Fadabloco visited Suco Umakaduak, Manatutu District to observe the sloping agricultural land techniques. ◆ A total of 13 women of IG/LD-MP in Suco Fadabloco visited Suco Edi, Ainaro district to observe food processing activities done by local women. ◆ A total of 78 members of SPTPP-MP in Sucos Madabeno and Talitu visited Suco Quintal Portugal, Aileu District to observe a nursery managed by communities. ◆ A total of 11 meetings were held with 326 members of the micro programs in Sucos Faturasa, Fadabloco, Madabeno, and Talitu to share the results of the exposure visits among the members.
<p>Preparation of work plans of the micro programs</p> 	<ul style="list-style-type: none"> ◆ Held one to three days workshops with members of the beneficiaries’ groups in the target sucos to discuss major activities planned in the micro programs and develop overall work plans of the same in a participatory manner. 	<ul style="list-style-type: none"> ◆ A total of seven (7) workshops/meetings were held with 266 members of the micro programs in the target sucos. ◆ Overall work plans of the respective micro programs were developed by the beneficiaries’ groups.







Source: JICA Project Team (2015)


(2) First (1st) Year FFSs and Technical Assistance

The NGOs had arranged and conducted the following activities as the 1st year FFSs of the respective micro programs.




Summary of the 1st Year FFSs and Technical Assistance



a. SUFP with CBSE-MP in Sucos Faturasa and Fadabloco

Topics / Techniques	Month of training	Summary of Activities																						
Compost making	Jun. 2012	<ul style="list-style-type: none"> The NGO held a two (2) days training session on compost making each at the 10 demonstration plots in Sucos Faturasa and Fadabloco with the participation of 484 members in total. All the beneficiaries' groups in the villages developed a wooden frame enough for production of 1.5~2.5 ton of compost and piled materials for compost in the frame with the technical assistance of the NGO. 																						
Delineation of contour lines and application of soil conservation measures	Jul. to Sep. 2012	<ul style="list-style-type: none"> The NGO held one (1) or two (2) day/s training sessions on delineation of contour lines and three (3) days sessions on application of soil conservation measures at the 10 demonstration plots in the sucos. A total of 1,348 members attended the sessions and practiced the techniques of i) making A-frames, ii) delineating contour lines using A-frames, iii) making bench terraces, and iv) making contour composting terraces in the demonstration plots. The beneficiaries' groups applied bench terraces, contour composting terraces, and alley cropping to the demonstration plots as shown below. <p style="text-align: center;">Types of Soil Conservation Measures applied to the Demonstration Plots</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Suco</th> <th>Type of techniques</th> <th>No. of parcels</th> <th>Total Area</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Faturasa</td> <td>Bench terrace</td> <td>35 parcels</td> <td>About 1,720 m²</td> </tr> <tr> <td>Contour compos</td> <td>40 parcels</td> <td>About 6,180 m²</td> </tr> <tr> <td>Alley cropping</td> <td>3 parcels</td> <td>About 330 m²</td> </tr> <tr> <td rowspan="2">Fadabloco</td> <td>Bench terrace</td> <td>26 parcels</td> <td>About 2,320 m²</td> </tr> <tr> <td>Contour compos</td> <td>30 parcels</td> <td>About 5,040 m²</td> </tr> </tbody> </table> <p>Source: USC-CTL (2012)</p>	Suco	Type of techniques	No. of parcels	Total Area	Faturasa	Bench terrace	35 parcels	About 1,720 m ²	Contour compos	40 parcels	About 6,180 m ²	Alley cropping	3 parcels	About 330 m ²	Fadabloco	Bench terrace	26 parcels	About 2,320 m ²	Contour compos	30 parcels	About 5,040 m ²	
Suco	Type of techniques	No. of parcels	Total Area																					
Faturasa	Bench terrace	35 parcels	About 1,720 m ²																					
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Fadabloco	Bench terrace	26 parcels	About 2,320 m ²																					
	Contour compos	30 parcels	About 5,040 m ²																					
Cultivation with compost application	Aug. and Sept. 2012	<ul style="list-style-type: none"> The NGO held a one (1) or two (2) day/s training session on cultivation with application of compost at each demonstration plot in both sucos with the participation of 507 members in total. The members who attended the sessions learned how to apply compost when cultivating soils in a farm. 																						
Seed selection and sowing of seeds	Oct. and Nov. 2012	<ul style="list-style-type: none"> The NGO held a one (1) day training session on seed selection and another one (1) day session on sowing seeds at each demonstration plot in both sucos with the participation of 264 members in total. The members who attended the sessions learned to select quality seeds and planting materials of upland crops (i.e., maize, beans, peanut, cassava and sweet potato) and plant maize and beans in evenly space rows (i.e., 1 m x 0.5 m for maize and 1 m x 0.3~0.5 m for beans) in the same plot. 																						
Making of liquid fertilizer	Nov. and Dec. 2012	<ul style="list-style-type: none"> The NGO held a one (1) day training session on making of liquid fertilizer at each demonstration plot with the participation of 279 members in total. The members of the beneficiaries' groups in both sucos learned how to make liquid fertilizer using locally available materials, such as cow dung, leaves and grasses, through the sessions. 																						
Farm maintenance (weeding, application of liquid fertilizer, and fixing of terraces)	Dec. 2012 to Mar. 2013	<ul style="list-style-type: none"> The NGO held a total of 53 training sessions on farm maintenance in the demonstration plots with the participation of 1,073 members in total. The participants engaged in the maintenance of farms, namely weeding, application of liquid fertilizer, and fixing of terraces in the demonstration plots. 																						
Planting of other upland	Dec. 2012 and	<ul style="list-style-type: none"> The NGO held a one (1) or two (2) day/s training session on planting of peanut, cassava and sweet potato at each demonstration plot with the participation of 302 																						




Topics / Techniques	Month of training	Summary of Activities
crops	Jan. 2013	<p>members in total.</p> <ul style="list-style-type: none"> ◆ The members who attended the sessions practiced planting peanut, sweet potato, and cassava in the demonstration plots. In the plots sweet potato and cassava were mixed with maize and bean, while peanut was cropped without being mixed with other crops.
Harvesting and post-harvesting	Apr. and May 2013	<ul style="list-style-type: none"> ◆ The NGO held a two (2) days training session on harvesting and post-harvesting at each demonstration plot in the sucos with the participation of 483 members in total. ◆ The members who attended the sessions practiced harvesting maize, drying maize cobs, selecting seed grains, and storing seed grains using an airtight container. 
OJT in maintenance of crops in the demonstration plots	Dec. 2012 to Mar. 2013	<ul style="list-style-type: none"> ◆ Members of the beneficiaries' groups, especially core members of the groups, had engaged in the maintenance of crops, such as replanting, application of liquid fertilizer, weeding, and planting of cassava/sweet potato, in the demonstration plots as part of OJT. A total of 643 members participated in OJT in the demonstration plots.

b. IG/LD-MP in Suco Fadabloco

Topics / Techniques	Month of training	Results of the Activities
Resource assessment and identification of potential livelihoods	May 2011	<ul style="list-style-type: none"> ◆ The NGO held a one (1) meeting with members of the women groups to assess the potential resources available in the localities and determine the livelihood development options introduced in the suco in a participatory manner. ◆ As a result of the discussions, members decided to learn the techniques on the following livelihood options in the course of the micro program. <ul style="list-style-type: none"> - Dried sweet potato production - Herb tea production - Salted vegetable production - Clothes making and bag making by sewing machine
Dried sweet potato production	June to August 2012	<ul style="list-style-type: none"> ◆ Two (2) training sessions on production of dried sweet potato were held at the suco level by the NGO with technical assistance of a Japanese NGO named PARCIC. A total of 51 members took part in the sessions and learned i) the techniques of processing of sweet potato, ii) sorting of dried sweet potato, iii) packing of quality dried sweet potato, and iv) labeling of the packages. ◆ After the sessions, the NGO further held a total 14 training sessions at the aldeia level so that many members could practice the techniques more than once. A total of 109 members attended the sessions and learned the same techniques. 
Herb tea production	August and September 2012	<ul style="list-style-type: none"> ◆ Four (4) hands-on training sessions on production of herbal tea were held at aldeia level by the NGO with the technical assistance of PARCIC. A total of 63 members learned how to process fresh leaves into herbal tea and sort the processed products. ◆ As the process of making herbal tea was simple and easy to learn, members of the beneficiaries' groups continued the production of herbal tea by themselves as part of OJT, the NGO only arranged and held three (3) training sessions on sorting/quality checking of herbal tea with the participation of a total of 55 members. ◆ Members of the women groups continued the production of herbal tea without technical assistance of the NGO. The quality of their products was evaluated as high as those produced by PARCIC. ◆ The production of herbal tea was supposed to be continued in the following months, but it was suspended in November due to a lack of raw materials (leaves) in the field. 
Participation in the food and beverage exhibition	October 2012	<ul style="list-style-type: none"> ◆ Eight (8) members of the women groups participated in the food and beverage exhibition and displayed their products, namely dried sweet potato and herbal tea, in the same with the assistance of the NGO on October 20, 2012. ◆ They were able to observe local products brought by other community organizations throughout the country and meet potential buyers of their products, which resulted in not only the expansion of the members' interest in other processed foods but also the enhancement of their motivation to continue the micro program activities. 

Topics / Techniques	Month of training	Results of the Activities
Salted vegetable production	November 2012	<ul style="list-style-type: none"> ◆ The NGO held two (2) training sessions on production of salted vegetable at two (2) locations (aldeias) in the suco to give a chance to take part in the sessions as many members as possible. ◆ A total of 53 members learned how to pickle vegetables and check the process of fermentation in the sessions. ◆ 33 members of the groups also evaluation the quality of salted vegetables after three (3) months fermentation in February 2013. 
Lecture on marketing	December 2012	<ul style="list-style-type: none"> ◆ A lecture on marketing was held by the NGO on December 4, 2012 with the participation of 24 members of the groups. ◆ The participants learned a mechanism on marketing, crucial points/conditions to be considered in marketing, and elements that would affect price setting.
Banana and cassava chips production	December 2012	<ul style="list-style-type: none"> ◆ The NGO held a one (1) day training session on chips production with technical assistance of PARCIC on December 5, 2012. A total of 34 members of the groups attended the session and learned how to produce banana and cassava chips.
Use of sewing machine	December 2012 and January 2013	<ul style="list-style-type: none"> ◆ The NGO held a four (4) days training session on use of a sewing machine at two locations in the suco. A total of 139 members attended the sessions and learned the basic skills to use and maintain a sewing machine. ◆ After the sessions, the members had kept using the machines to practice their skills on their own initiative.
Making of recycle bag using rice sacks	February 2013	<ul style="list-style-type: none"> ◆ Another two (2) sets of three (3) days training session on making a bag by using sewing machines were held by the NGO with technical assistance of the JICA Project Team. ◆ A total of 95 members attended the sessions and learned how to make a pattern, trace and cut materials, sew materials and finalize a bag. 
Financial management	February 2013	<ul style="list-style-type: none"> ◆ One day session on financial management was held by the NGO with the participation of 19 members of the women groups. ◆ The members learned how to make an inventory of assets and keep a book of account of the groups so that they could manage earnings (or cash) and assets in a proper manner in the future.

c. SPTPP in Suco Madabeno and Talitu





Topics / Techniques	Month of training	Results of the Activities
Establishment of nurseries	May 2012	<ul style="list-style-type: none"> ◆ The NGO assisted each beneficiaries' group in the establishment of a nursery enough to produce 2,000 to 6,000 seedlings/plot. ◆ A total of 10 nurseries were established in two (2) sucos to produce about 28,500 seedlings of timber and fruit trees. 
Seedbed making	Jun. 2012	<ul style="list-style-type: none"> ◆ The NGO held a one (1) to two (2) day/s session on seed making at each nursery to help the beneficiaries' group build a seedbed in the nursery. ◆ A total of 118 members participated in the sessions and learned how to make a seedbed using materials locally available.
Selection and preparation of seeds	Jun. and Jul. 2012	<ul style="list-style-type: none"> ◆ 72 members of the beneficiaries' groups learned how to select and pre-treat seeds in a one day session held by the NGO at each nursery.
Sowing of seeds	Jul. 2012	<ul style="list-style-type: none"> ◆ The NGO held a one day session on sowing of seeds at each nursery with the participation of 91 members in total. Members sowed seeds in a seedbed during the sessions. 
Preparation of poly bags	Jul. 2012	<ul style="list-style-type: none"> ◆ The NGO held a one (1) to two (2) day/s session at each nursery to introduce and demonstrate the process of preparing poly bags. A total of 221 members attended the sessions and learned how to mix black soils with other media (sands, sub-soils, and compost) and fill the mixture into poly bags in the sessions. ◆ Members had continued the preparation of poly bags with technical assistance of the NGO after the sessions in July and August 2012 until they prepared as many poly bags as they targeted. 
Transplanting	Aug. 2012	<ul style="list-style-type: none"> ◆ The NGO held a one (1) training session on transplanting of sprouts and another one

Topics / Techniques	Month of training	Results of the Activities
of sprouts		(1) session on planting of teak sprout at each nursery with participation of 163 members in total. ◆ The members who attended the sessions learned how to transplant sprouts and plant teak stems into poly bags in the sessions.
Maintenance of seedlings	Aug. to Dec. 2012	◆ The beneficiaries' groups had maintained the seedlings transplanted in poly bags in the nurseries with technical assistance of the NGO. ◆ Members had engaged in watering, weeding, application of natural pesticide and liquid fertilizer, and relocation of seedling pots in the nurseries.
Delineation of contour lines, staking, and pitting	Nov. and Dec. 2012	◆ The NGO held a total of three (3) sessions of one (1) day training each at the 12 demonstration plots in two (2) sucos to introduce and demonstrate the techniques of delineating contour lines, staking, and pitting, at each demonstration plot for tree planting in the plots. ◆ A total of 413 members attended the sessions and learned how to i) make an A-frame, ii) delineate contour lines using an A-frame, iii) stick stakes along the contour lines, and iv) dig pits at the points where stakes were stuck in the demonstration plots.
Refilling and planting	Dec. 2012 and Jan. 2013	◆ The NGO held a one (1) to two (2) day/s session on refilling and planting at each demonstration plot with the participation of 156 members in total. ◆ The members who attended the sessions practiced the techniques of refilling and planting in the demonstration plots so that they could apply the same techniques to their own plots when receiving seedlings. ◆ The beneficiaries' groups planted 1,063 seedlings of mahogany, teak, casuarina, sandalwood, and citrus in 12 demonstration plots in (2) sucos.

d. SUFP-MP in Suco Madabeno and Talitu

Topics / Techniques	Month of training	Results of the Activities		
Compost making and maintenance of compost	Aug. and Sep. 2012	◆ The NGO held a two (2) days training session on compost making and another one (1) day session on maintenance of compost each at the nine (9) demonstration plots in Sucos Madabeno and Talitu. ◆ A total of 199 members attended the sessions and learned how to i) prepare materials for compost, ii) make a compost frame, iii) pile materials in a frame, and iv) maintain compost in the course of the sessions.		
Delineation of contour lines and application of soil conservation measures	Sep. and Oct 2012	◆ The NGO held a two (2) days training session on delineation of contour lines and another two (2) days session on application of soil conservation measures at each demonstration plot in the sucos. ◆ A total of 225 members attended the former sessions and another 234 members took part in the latter sessions. They learned to i) make an A-frame using materials locally available, ii) delineate contour lines using an A-frame, iii) make bench terraces, iv) make contour composting terraces, v) make stone terraces, and vi) apply an alley cropping system in the demonstration plots. ◆ The following table shows the types and parcels of soil conservation measures that the beneficiaries' groups developed in the demonstration plots.		
Types of Soil Conservation Measures applied to the Demonstration Plots				
	Suco	Type of techniques	No. of parcels	Total Area
	Talitu	Stone terraces	3 parcels	About 4,230 m2 in total
		Contour composts	20 parcels	
		Alley cropping	9 parcels	
	Madabeno	Bench terraces	8 parcels	About 9,390 m2 in total
		Contour composts	28 parcels	
		Stone terraces	8 parcels	
		Alley cropping	4 parcels	

Source: Halarae Foundation (2012)

Topics / Techniques	Month of training	Results of the Activities	
Cultivation with application of compost	Oct 2012	<ul style="list-style-type: none"> The NGO held a one (1) or two (2) days training session on cultivation with application of compost in each demonstration plot in the sucos with 105 members in total. The members who attended the sessions learned to cultivate a farm and apply compost in a proper manner. 	
Sowing/ planting of seeds and planting materials	Oct, Nov. 2012 and Jan. 2013	<ul style="list-style-type: none"> The NGO held a one (1) day training session on sowing each for maize and beans in October and November 2012 and another one (1) day session on planting of cassava and sweet potato in January 2013 at each demonstration plot in the sucos. A total of 219 members and 66 members attended the sessions, respectively, and learned how to plant maize mixed with beans and cassava with sweet potato in evenly space rows (maize: 1 m x 0.5 m and beans: 1 m x 0.3-0.4 m and cassava: 1 m x 1m and sweet potato: 1 m x 0.3-0.5 m) in the demonstration plots. 	
Making of liquid fertilizer	Nov. 2012	<ul style="list-style-type: none"> A one (1) day training session was held by the NGO at each demonstration plot. A total of 122 members attended the sessions and learned how to make liquid fertilizer using materials locally available. 	
Farm maintenance (weeding, application of liquid fertilizer, etc.)	Jan. and Feb. 2013	<ul style="list-style-type: none"> The NGO held a one (1) day training session on farm maintenance twice to three in January and February 2013 at each demonstration plot in the sucos. A total of 144 members attended the sessions and practiced the techniques of weeding, applying liquid fertilizer, mulching, and fixing terraces/contour ditches in the demonstration plots. 	
OJT in maintenance of farms	Jan. to Mar 2013	<ul style="list-style-type: none"> After the hands-on training sessions, members of the beneficiaries' groups continued weeding and application of liquid fertilizer in the demonstration plots with technical assistance of the NGO. 	
Harvesting and post-harvesting	Apr. to Jun. 2013	<ul style="list-style-type: none"> The NGO held a one (1) day training session on harvesting of maize and another one (1) or two (2) day/s session on post-harvesting of maize (seed collection and storing of seeds) at each demonstration plot in the sucos. A total of 117 members and 134 members attended the sessions on harvesting and post-harvesting, respectively, and practiced the techniques of harvesting, drying maize cobs, selecting seeds from dried cobs, and storing selected seeds in an airtight container. 	

Source: JICA Project Team (2015)

(3) Results of the First (1st) Year FFSs

The results of the 1st year FFSs are summarized below

Summary of Results of the 1st Year FFSs and Technical Assistance

Micro Program	Suco	Results of the Activities																																																												
SUFP with CBSE-MP	Faturasa and Fadabloco	<ul style="list-style-type: none"> A total of 10 demonstration plots were developed in Sucos Faturasa and Fadabloco. Through a series of FFSs on sustainable upland farming using improved seeds in the demonstration plots, the beneficiaries' groups produced maize (improved variety), peanut (improved and local), red bean (local), sweet potato (improved), and cassava (improved) in the demonstration plots. The following table shows the production of those crops and volume of seeds sown in the demonstration plots. <p style="text-align: center;">Harvest volume at the demonstration plots for SUFP with CBSE-MP</p> <p style="text-align: right;">(unit: kg)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">No. of plots</th> <th colspan="2">Maize (Improved)</th> <th colspan="2">Peanuts (Improved)</th> <th colspan="2">Peanuts (Local)</th> </tr> <tr> <th>Volume of Seed</th> <th>Production <1</th> <th>Volume of Seed</th> <th>Production <1</th> <th>Volume of Seed</th> <th>Production <1</th> </tr> </thead> <tbody> <tr> <td>Faturasa</td> <td>6 plots</td> <td>8.5</td> <td>1,725</td> <td>10.0</td> <td>60</td> <td>n.a.</td> <td>0</td> </tr> <tr> <td>Fadabloco</td> <td>4 plots</td> <td>5.5</td> <td>1,045</td> <td>12.0</td> <td>135</td> <td>4.5</td> <td>51</td> </tr> <tr> <td>Total</td> <td>10 plots</td> <td>14.0</td> <td>2,770</td> <td>22.0</td> <td>195</td> <td>4.5</td> <td>51</td> </tr> </tbody> </table> <p style="text-align: right;">(unit: Pcs./kg)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">No. of plots</th> <th colspan="2">Sweet Potato (improved)</th> <th colspan="2">Cassava (improved)</th> <th colspan="2">Red beans (Local)</th> </tr> <tr> <th>No. of</th> <th>Production</th> <th>No. of</th> <th>Production</th> <th>Volume</th> <th>Production</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Suco	No. of plots	Maize (Improved)		Peanuts (Improved)		Peanuts (Local)		Volume of Seed	Production <1	Volume of Seed	Production <1	Volume of Seed	Production <1	Faturasa	6 plots	8.5	1,725	10.0	60	n.a.	0	Fadabloco	4 plots	5.5	1,045	12.0	135	4.5	51	Total	10 plots	14.0	2,770	22.0	195	4.5	51	Suco	No. of plots	Sweet Potato (improved)		Cassava (improved)		Red beans (Local)		No. of	Production	No. of	Production	Volume	Production								
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IG/LD-MP	Fadabloco	<ul style="list-style-type: none"> ◆ After the hands-on training sessions arranged and held for the women groups, the groups had continued some of the activities, such as production of banana chips and repair of clothes using sewing machines. As of the end of April 2013, the groups were able to earn small cash income as shown below. <p style="text-align: center;">Total Cash Earnings by the Women Groups (as of the end of April 2013)</p> <table border="1"> <thead> <tr> <th>Beneficiaries' groups</th> <th>Income generated</th> </tr> </thead> <tbody> <tr> <td>Group Lilitei</td> <td>13.35 USD</td> </tr> <tr> <td>Group Raifato</td> <td>11.50 USD</td> </tr> <tr> <td>Group Liquica</td> <td>21.50 USD</td> </tr> <tr> <td>Group Rileu</td> <td>n/a*</td> </tr> </tbody> </table> <p>Note*/n/a: data not available Source: USC-CTL (2013)</p>	Beneficiaries' groups	Income generated	Group Lilitei	13.35 USD	Group Raifato	11.50 USD	Group Liquica	21.50 USD	Group Rileu	n/a*																																						
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SPTPP-MP	Madabeno Talitu	<ul style="list-style-type: none"> ◆ A total of 10 nurseries were developed by the beneficiaries' groups in Sucos Madabeno and Talitu. ◆ About 22,000 seedlings were produced and shared by members of the beneficiaries' groups. According to the NGO, all the seedlings given to members were planted in members' plots/farms. <p style="text-align: center;">No. of Seedlings distributed to Members in 2012/2013 (Unit: Pcs.)</p> <table border="1"> <thead> <tr> <th>Species</th> <th>Madabeno</th> <th>Talitu</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Sandalwood</td> <td>513</td> <td>570</td> <td>1,083</td> </tr> <tr> <td>Citrus</td> <td>194</td> <td>468</td> <td>662</td> </tr> <tr> <td>Teak</td> <td>5,133</td> <td>2,783</td> <td>7,916</td> </tr> <tr> <td>Mahogany</td> <td>5,455</td> <td>3,268</td> <td>8,723</td> </tr> <tr> <td>Casuarina</td> <td>3,032</td> <td>0</td> <td>3,032</td> </tr> <tr> <td>Albizia</td> <td>767</td> <td>0</td> <td>767</td> </tr> <tr> <td>Total</td> <td>15,084</td> <td>7,089</td> <td>22,173</td> </tr> </tbody> </table> <p>Source: Halarae Foundation (2012)</p> <ul style="list-style-type: none"> ◆ The beneficiaries' groups in Suco Madabeno decided not to distribute seedlings which were too small to plant in January/February 2013 as it would be difficult for such seedlings to survive after planting. As a result, About 5,300 seedlings were left in the nurseries and had been raised in 2013/2014. <p style="text-align: center;">No. of Seedlings left in the Nurseries in 2013/2014 (Unit: Pcs.)</p> <table border="1"> <thead> <tr> <th>Species</th> <th>No. of seedlings</th> </tr> </thead> <tbody> <tr> <td>Sandalwood</td> <td>1,749</td> </tr> <tr> <td>Orange</td> <td>2,286</td> </tr> <tr> <td>Teak</td> <td>874</td> </tr> <tr> <td>Mahogany</td> <td>384</td> </tr> <tr> <td>Total</td> <td>5,293</td> </tr> </tbody> </table> <p>Source: Halarae Foundation (2012)</p>	Species	Madabeno	Talitu	Total	Sandalwood	513	570	1,083	Citrus	194	468	662	Teak	5,133	2,783	7,916	Mahogany	5,455	3,268	8,723	Casuarina	3,032	0	3,032	Albizia	767	0	767	Total	15,084	7,089	22,173	Species	No. of seedlings	Sandalwood	1,749	Orange	2,286	Teak	874	Mahogany	384	Total	5,293				
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SUFP-MP	Madabeno Talitu	<ul style="list-style-type: none"> ◆ A total of nine (9) demonstration plots were developed in Sucos Madabeno and Talitu. ◆ Although the beneficiaries' groups were able to harvest improved maize, its production was not as high as expected due to unfavorable climatic conditions, and 																																																

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		<p>low soil fertility. Moreover, the groups were hardly able to harvest other crops due to the same reasons. The following table shows the summary of the results of maize production in the demonstration plots in the sucos.</p> <p style="text-align: center;">Harvest volume at the demonstration plots for SUFP-MP (unit: kg)</p> <table border="1"> <thead> <tr> <th>Suco</th> <th>No. of plot</th> <th>Seeds planted</th> <th>Production</th> <th>Seed stored</th> </tr> </thead> <tbody> <tr> <td>Talitu</td> <td>3 plots</td> <td>1.3</td> <td>62.0</td> <td>12.0</td> </tr> <tr> <td>Madabeno</td> <td>6 plots</td> <td>5.0</td> <td>291.0</td> <td>104.0</td> </tr> <tr> <td>Total</td> <td>9 plots</td> <td>6.3</td> <td>353.0</td> <td>116.0</td> </tr> </tbody> </table> <p><i>Source: Halarae Foundation (2013)</i></p> <ul style="list-style-type: none"> ◆ The average ratio of production to seeds sown in the demonstration plots was about 60:1, which was rather lower than those observed in the plots in Fadabloco and Faturasa, although the NGO introduced the improved variety in all the sites. However, some demonstration plots, of which soil fertility was rather high, showed better performance. ◆ Accordingly, only few members applied the soil conservation measures to their own plots in both sucos as majority of them took a wait-and-see attitude. 	Suco	No. of plot	Seeds planted	Production	Seed stored	Talitu	3 plots	1.3	62.0	12.0	Madabeno	6 plots	5.0	291.0	104.0	Total	9 plots	6.3	353.0	116.0
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Source: JICA Project Team (2015)

(4) Participatory Monitoring and Evaluation of the Micro Programs

In February/March 2013, the beneficiaries' groups and women groups of the micro programs in the 1st batch sucos had a two-day meeting each for the micro programs to evaluate the results of the 1st year FFSs and discuss necessary improvements to be made to make the 2nd year FFSs more effective. The groups also discussed and developed annual work plans of the respective micro programs in 2013/2014 with the assistance of the NGOs in the meetings.

(5) Second (2nd) Year FFSs and Technical Assistance

In the 2nd year FFSs and technical assistance, the emphasis was put on dissemination of the techniques among members rather than demonstration of the same in the demonstration plots. Hence, the two-step extension approach, which aimed to encourage members to apply key techniques to their own farms in accordance with the customary collective working system (so-called "Harosan system"), was employed for SUFP-MP, SUFP with CBSE-MP, and SUB/PF-MP as explained in the previous section.


On the other hand, the focus of IG/LD-MP was put on the operations of a small scale business/enterprise using techniques introduced, while SPTPP-MP aimed to produce high value trees which would motivate members to protect plantations from being damaged by forest fires and animal grazing.


The 2nd year FFSs and other technical assistance activities carried out in the 1st batch sucos are summarized below.

Summary of the 2nd Year FFSs and Technical Assistance


a. SUFP with CBSE-MP in Sucos Faturasa and Fadabloco

Topics / Techniques	Month of training	Summary of Activities												
Reorganization of members of the beneficiaries' groups	Apr. 2013	<ul style="list-style-type: none"> ◆ Prior to the conducts of hands-on training courses/FFSs, the NGO helped members of the beneficiaries' groups organize sub-groups based on the customary collective working system or the proximity of their houses in the sucos. The following table shows the sub-groups organized under the respective groups. <p style="text-align: center;">Reorganization of the Beneficiaries' Groups</p> <table border="1"> <thead> <tr> <th>Suco</th> <th>No. of groups</th> <th>No. of Sub-groups</th> <th>Average No. of members</th> </tr> </thead> <tbody> <tr> <td>Faturasa</td> <td>6 groups</td> <td>16 sub-groups</td> <td>8~13 members/sub-group Total: 159 members</td> </tr> <tr> <td>Fadabloco</td> <td>4 groups</td> <td>16 sub-groups</td> <td>5~11 members/sub-group Total: 133 members</td> </tr> </tbody> </table> <p><i>Source: USC-CTL (2013)</i></p>	Suco	No. of groups	No. of Sub-groups	Average No. of members	Faturasa	6 groups	16 sub-groups	8~13 members/sub-group Total: 159 members	Fadabloco	4 groups	16 sub-groups	5~11 members/sub-group Total: 133 members
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Hands-on	May 2013	<ul style="list-style-type: none"> ◆ The NGO held almost the same hands-on training sessions except the ones for 												

Topics / Techniques	Month of training	Summary of Activities																																																																																																						
training in the Main Demonstration Plots	– May 2014	<p>delineation of contour lines and application of soil conservation measures in the demonstration plots in Sucos Faturasa and Fadabloco.</p>  <p style="text-align: center;">Hands-on Training Sessions held in the Demonstration Plots</p> <table border="1"> <thead> <tr> <th>Topic</th> <th>Suco</th> <th>Date of training</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Compost making</td> <td>Faturasa</td> <td>12 sessions from May 14 to Jun. 14, 2013</td> <td>276 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>8 sessions from May 10 to 28, 2013</td> <td>249 members in total</td> </tr> <tr> <td rowspan="2">Turn-over of compost</td> <td>Faturasa</td> <td>12 sessions from July. 3 to Aug. 27, 2013</td> <td>269 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>8 sessions from Jun. 21 to Aug. 22, 2013</td> <td>249 members in total</td> </tr> <tr> <td rowspan="2">Installation of animal pen</td> <td>Faturasa</td> <td>13 sessions from Aug. 13 to 27, 2013</td> <td>259 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>8 sessions on Aug. 16 and 29, 2013</td> <td>241 members in total</td> </tr> <tr> <td rowspan="2">Land clearing and cultivation</td> <td>Faturasa</td> <td>6 sessions from Sep. 3 to 19, 2013, 2013</td> <td>132 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>4 sessions from Aug. 11 to Sep. 12, 2013</td> <td>235 members in total</td> </tr> <tr> <td rowspan="2">Application of Compost</td> <td>Faturasa</td> <td>6 sessions from Oct. 15 to 18, 2013</td> <td>131 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>4 sessions on Oct.18 and 22</td> <td>127 members in total</td> </tr> <tr> <td rowspan="2">Selection of seeds</td> <td>Faturasa</td> <td>6 sessions from Oct. 28 to 31</td> <td>160 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>4 sessions on Oct. 23, 24, and 25, 2013</td> <td>133 members in total</td> </tr> <tr> <td rowspan="2">Sowing of seeds</td> <td>Faturasa</td> <td>6 sessions from Nov. 12 to 18, 2013</td> <td>140 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>4 sessions from Nov. 11 to 15, 2013</td> <td>141 members in total</td> </tr> <tr> <td rowspan="2">Production of liquid fertilizer</td> <td>Faturasa</td> <td>6 sessions on Nov. 20, 21, and 22, 2013</td> <td>138 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>4 sessions from Nov. 20 to 23, 2013</td> <td>135 members in total</td> </tr> <tr> <td rowspan="2">Maintenance of farm</td> <td>Faturasa</td> <td>12 sessions from Dec. 9 to 13, 2013</td> <td>304 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>8 sessions from Dec. 9 to 14, 2013</td> <td>227 members in total</td> </tr> <tr> <td rowspan="2">Planting of hedgerows</td> <td>Faturasa</td> <td>6 sessions on Jan. 8, 9, and 10, 2014</td> <td>139 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>4 sessions from Dec. 28 to 31, 2013</td> <td>133 members in total</td> </tr> <tr> <td rowspan="2">Planting of lehe (green manure)</td> <td>Faturasa</td> <td>6 sessions on Feb. 4, 5, and 6, 2014</td> <td>143 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>4 sessions on Jan. 31 and Feb. 12, 2014</td> <td>117 members in total</td> </tr> <tr> <td rowspan="2">Harvesting of maize</td> <td>Faturasa</td> <td>6 sessions from Mar. 21 to Apr. 26, 2014</td> <td>154 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>4 sessions on Mar. 25, 26 and 27, 2014</td> <td>127 members in total</td> </tr> <tr> <td rowspan="2">Post-harvesting of maize</td> <td>Faturasa</td> <td>6 sessions from Apr. 28 to May 1, 2014</td> <td>120 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>4 sessions on Apr. 29, 2014</td> <td>126 members in total</td> </tr> <tr> <td rowspan="2">Fixing of terraces</td> <td>Faturasa</td> <td>6 sessions on May 8 and 9, 2014</td> <td>134 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>4 sessions on May 7, 8, and 9, 2014</td> <td>100 members in total</td> </tr> </tbody> </table> <p>Source: USC-CTL (2014)</p> <p>◆ As shown above, the following topics were added to the 1st year curriculum.</p> <ul style="list-style-type: none"> - Installation of an animal pen - Planting of leguminous crops/trees as hedgerows - Planting of lehe as green manure <p>The members who attended the sessions learned to i) build an animal pen using materials locally available, ii) develop hedgerows on contour bunds, and iii) use lehe as cover crops as well as green manure to maintain soil fertility.</p>	Topic	Suco	Date of training	No. of participants	Compost making	Faturasa	12 sessions from May 14 to Jun. 14, 2013	276 members in total	Fadabloco	8 sessions from May 10 to 28, 2013	249 members in total	Turn-over of compost	Faturasa	12 sessions from July. 3 to Aug. 27, 2013	269 members in total	Fadabloco	8 sessions from Jun. 21 to Aug. 22, 2013	249 members in total	Installation of animal pen	Faturasa	13 sessions from Aug. 13 to 27, 2013	259 members in total	Fadabloco	8 sessions on Aug. 16 and 29, 2013	241 members in total	Land clearing and cultivation	Faturasa	6 sessions from Sep. 3 to 19, 2013, 2013	132 members in total	Fadabloco	4 sessions from Aug. 11 to Sep. 12, 2013	235 members in total	Application of Compost	Faturasa	6 sessions from Oct. 15 to 18, 2013	131 members in total	Fadabloco	4 sessions on Oct.18 and 22	127 members in total	Selection of seeds	Faturasa	6 sessions from Oct. 28 to 31	160 members in total	Fadabloco	4 sessions on Oct. 23, 24, and 25, 2013	133 members in total	Sowing of seeds	Faturasa	6 sessions from Nov. 12 to 18, 2013	140 members in total	Fadabloco	4 sessions from Nov. 11 to 15, 2013	141 members in total	Production of liquid fertilizer	Faturasa	6 sessions on Nov. 20, 21, and 22, 2013	138 members in total	Fadabloco	4 sessions from Nov. 20 to 23, 2013	135 members in total	Maintenance of farm	Faturasa	12 sessions from Dec. 9 to 13, 2013	304 members in total	Fadabloco	8 sessions from Dec. 9 to 14, 2013	227 members in total	Planting of hedgerows	Faturasa	6 sessions on Jan. 8, 9, and 10, 2014	139 members in total	Fadabloco	4 sessions from Dec. 28 to 31, 2013	133 members in total	Planting of lehe (green manure)	Faturasa	6 sessions on Feb. 4, 5, and 6, 2014	143 members in total	Fadabloco	4 sessions on Jan. 31 and Feb. 12, 2014	117 members in total	Harvesting of maize	Faturasa	6 sessions from Mar. 21 to Apr. 26, 2014	154 members in total	Fadabloco	4 sessions on Mar. 25, 26 and 27, 2014	127 members in total	Post-harvesting of maize	Faturasa	6 sessions from Apr. 28 to May 1, 2014	120 members in total	Fadabloco	4 sessions on Apr. 29, 2014	126 members in total	Fixing of terraces	Faturasa	6 sessions on May 8 and 9, 2014	134 members in total	Fadabloco	4 sessions on May 7, 8, and 9, 2014	100 members in total
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Installation of animal pen	Faturasa	13 sessions from Aug. 13 to 27, 2013	259 members in total																																																																																																					
	Fadabloco	8 sessions on Aug. 16 and 29, 2013	241 members in total																																																																																																					
Land clearing and cultivation	Faturasa	6 sessions from Sep. 3 to 19, 2013, 2013	132 members in total																																																																																																					
	Fadabloco	4 sessions from Aug. 11 to Sep. 12, 2013	235 members in total																																																																																																					
Application of Compost	Faturasa	6 sessions from Oct. 15 to 18, 2013	131 members in total																																																																																																					
	Fadabloco	4 sessions on Oct.18 and 22	127 members in total																																																																																																					
Selection of seeds	Faturasa	6 sessions from Oct. 28 to 31	160 members in total																																																																																																					
	Fadabloco	4 sessions on Oct. 23, 24, and 25, 2013	133 members in total																																																																																																					
Sowing of seeds	Faturasa	6 sessions from Nov. 12 to 18, 2013	140 members in total																																																																																																					
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Production of liquid fertilizer	Faturasa	6 sessions on Nov. 20, 21, and 22, 2013	138 members in total																																																																																																					
	Fadabloco	4 sessions from Nov. 20 to 23, 2013	135 members in total																																																																																																					
Maintenance of farm	Faturasa	12 sessions from Dec. 9 to 13, 2013	304 members in total																																																																																																					
	Fadabloco	8 sessions from Dec. 9 to 14, 2013	227 members in total																																																																																																					
Planting of hedgerows	Faturasa	6 sessions on Jan. 8, 9, and 10, 2014	139 members in total																																																																																																					
	Fadabloco	4 sessions from Dec. 28 to 31, 2013	133 members in total																																																																																																					
Planting of lehe (green manure)	Faturasa	6 sessions on Feb. 4, 5, and 6, 2014	143 members in total																																																																																																					
	Fadabloco	4 sessions on Jan. 31 and Feb. 12, 2014	117 members in total																																																																																																					
Harvesting of maize	Faturasa	6 sessions from Mar. 21 to Apr. 26, 2014	154 members in total																																																																																																					
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Post-harvesting of maize	Faturasa	6 sessions from Apr. 28 to May 1, 2014	120 members in total																																																																																																					
	Fadabloco	4 sessions on Apr. 29, 2014	126 members in total																																																																																																					
Fixing of terraces	Faturasa	6 sessions on May 8 and 9, 2014	134 members in total																																																																																																					
	Fadabloco	4 sessions on May 7, 8, and 9, 2014	100 members in total																																																																																																					
Training in the Sub-group Demonstration Plots	May 2013 – Feb. 2014	<p>◆ In order to encourage members to apply key techniques essential to sustainable upland farming to their own farms, the following training sessions were arranged and held in the sub-group demonstration plots (one of the farms owned by members of the sub-groups).</p> <p style="text-align: center;">Training Sessions held in the Demonstration Plots</p> <table border="1"> <thead> <tr> <th>Topic</th> <th>Suco</th> <th>Date of training</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Compost making</td> <td>Faturasa</td> <td>18 sessions from May 17 to Jun. 20, 2013</td> <td>299 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>23 sessions from May 22 to Jun. 14, 2013</td> <td>292 members in total</td> </tr> <tr> <td rowspan="2">Maintenance of Compost</td> <td>Faturasa</td> <td>10 sessions from Jul. 01 to 31, 2013</td> <td>163 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>13 sessions from Jun. 23 to 18, 2013</td> <td>144 members in total</td> </tr> <tr> <td rowspan="2">Delineation of Contour lines <1</td> <td>Faturasa</td> <td>14 sessions from Jul. 04 to 17, 2013</td> <td>144 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>14 sessions from Jul. 03 to 19, 2013</td> <td>144 members in total</td> </tr> <tr> <td rowspan="2">Plowing with compost application</td> <td>Faturasa</td> <td>16 sessions from Aug. 01 to 21, 2013</td> <td>153 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>16 sessions from Jul. 30 to Aug. 21, 2013</td> <td>137 members in total</td> </tr> <tr> <td rowspan="2">Sowing of seeds <2</td> <td>Faturasa</td> <td>15 sessions from Nov.13 to 18, 2013</td> <td>143 members in total</td> </tr> <tr> <td>Fadabloco</td> <td>16 sessions from Nov.13 to 19, 2013</td> <td>134 members in total</td> </tr> <tr> <td rowspan="2">Preparation of liquid fertilizer <3</td> <td>Faturasa</td> <td>6 sessions from Nov.23 to 27, 2013</td> <td>49 members</td> </tr> <tr> <td>Fadabloco</td> <td>5 sessions from Nov.23 to 27, 2013</td> <td>47 members</td> </tr> <tr> <td rowspan="2">Application of liquid fertilizer <2</td> <td>Faturasa</td> <td>15 sessions from Dec.16 to Dec.20, 2013</td> <td>114 members</td> </tr> <tr> <td>Fadabloco</td> <td>16 sessions from Dec.14 to 21, 2013</td> <td>135 members</td> </tr> <tr> <td rowspan="2">Planting of lehe <2</td> <td>Faturasa</td> <td>15 sessions from Feb.5 to 27, 2014</td> <td>130 members</td> </tr> <tr> <td>Fadabloco</td> <td>16 sessions from Feb.25 to 28, 2014</td> <td>129 members</td> </tr> </tbody> </table> <p>Note: <1 The topic of "Delineation of contour lines" is composed of two agenda: i) making of A-frames and ii) delineation of contour lines using A-frames. <2 The training courses were arranged according to the request from the members. <3 Only the sub-groups whose farms were far from the main demonstration plots conducted the hands-on training courses..</p> <p>Source: USC-CTL (2014)</p>	Topic	Suco	Date of training	No. of participants	Compost making	Faturasa	18 sessions from May 17 to Jun. 20, 2013	299 members in total	Fadabloco	23 sessions from May 22 to Jun. 14, 2013	292 members in total	Maintenance of Compost	Faturasa	10 sessions from Jul. 01 to 31, 2013	163 members in total	Fadabloco	13 sessions from Jun. 23 to 18, 2013	144 members in total	Delineation of Contour lines <1	Faturasa	14 sessions from Jul. 04 to 17, 2013	144 members in total	Fadabloco	14 sessions from Jul. 03 to 19, 2013	144 members in total	Plowing with compost application	Faturasa	16 sessions from Aug. 01 to 21, 2013	153 members in total	Fadabloco	16 sessions from Jul. 30 to Aug. 21, 2013	137 members in total	Sowing of seeds <2	Faturasa	15 sessions from Nov.13 to 18, 2013	143 members in total	Fadabloco	16 sessions from Nov.13 to 19, 2013	134 members in total	Preparation of liquid fertilizer <3	Faturasa	6 sessions from Nov.23 to 27, 2013	49 members	Fadabloco	5 sessions from Nov.23 to 27, 2013	47 members	Application of liquid fertilizer <2	Faturasa	15 sessions from Dec.16 to Dec.20, 2013	114 members	Fadabloco	16 sessions from Dec.14 to 21, 2013	135 members	Planting of lehe <2	Faturasa	15 sessions from Feb.5 to 27, 2014	130 members	Fadabloco	16 sessions from Feb.25 to 28, 2014	129 members																																										
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		<ul style="list-style-type: none"> ◆ In the sessions at the sub-group demonstration plots, the emphasis was put on the application of the key techniques in the field. The NGO had functioned as more like a facilitator than a trainer. ◆ Another aim of the training sessions at the sub-group demonstration plot was to encourage members to help each other introduce the same techniques in their own farms using the customary collective working system, since application of some of the techniques was laborious and a lack of laborforce was one of the difficulties commonly observed in the sucos. ◆ As the collective working system (harosan system) was a traditional informal agreement that anyone who got help from the neighbors should do the same for those who helped. It was, therefore, expected that a chain reaction of mutual help could be triggered once the Project arranged opportunities for them to work together in the sub-group plots.
Application of techniques	May 2013 – Feb. 2014	<ul style="list-style-type: none"> ◆ Having had the training at the sub-group demonstration plots, the members of the sub-groups have helped each other apply the techniques that they practiced at the sub-group plots to their own farms with technical assistance from the NGO. According to the NGO, all the members (315 members) have applied the following key techniques to their own farms. <ul style="list-style-type: none"> - Production of compost - Application of contour composting techniques (some also applied bench terrace techniques to their own plots.) - Application of compost - Application of liquid fertilizer 




b. SUFP with CBSE-MP in Suco Fadabloco

Topics / Techniques	Month of training	Summary of Activities																				
Hands-on training	May 2013 – May 2014	<ul style="list-style-type: none"> ◆ The 2nd year training sessions aimed to upgrade the skills and techniques of members of the women groups so that they could produce products/commodities marketable in Dili. ◆ The following table shows hands-on training sessions arranged and held by the NGO in the 2nd year.  <table border="1" style="margin-left: auto; margin-right: auto;"> <caption>Hands-on Training Sessions held in the Demonstration Plots</caption> <thead> <tr> <th>Topics</th> <th>No. of groups</th> <th>Date of Session</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td>Pickled vegetables (sayote)</td> <td>4 groups</td> <td>Jun. 12, 2013</td> <td>14 members</td> </tr> <tr> <td>Clothes making using sewing machines</td> <td>3 groups</td> <td>Jul. 9-13, 2013</td> <td>103 members in total</td> </tr> <tr> <td></td> <td>1 group</td> <td>Jul. 16-20, 2013</td> <td>40 members in total</td> </tr> <tr> <td>Cassava chips production</td> <td>3 groups</td> <td>Oct. 25, 2013</td> <td>16 members</td> </tr> </tbody> </table> <p><i>Source: USC-C TL (2014)</i></p> <ul style="list-style-type: none"> ◆ Among the training courses listed above, the session on October 25 was held in collaboration with the National Directorate of Coffee, Industrial Plants, and Agribusiness (NPCIPA) to improve the quality of cassava chips according to the standards of the Suco Ida Program. The session became a good opportunity for members to judge that the products still needed improving in terms of hardness and color. ◆ In February 2014, the NGO also arranged and held a session on financial management for members of the groups to enhance their capacity for bookkeeping as the women groups had already started earning substantial cash income from the sales of cassava chips. A total of 20 members took part in the session and practice the bookkeeping. 	Topics	No. of groups	Date of Session	No. of participants	Pickled vegetables (sayote)	4 groups	Jun. 12, 2013	14 members	Clothes making using sewing machines	3 groups	Jul. 9-13, 2013	103 members in total		1 group	Jul. 16-20, 2013	40 members in total	Cassava chips production	3 groups	Oct. 25, 2013	16 members
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Hands-on training	May 2013 – May 2014	<ul style="list-style-type: none"> ◆ In order to improve the quality of cassava chips, the women's groups decided to continuously practice the cassava chips production. Each group selected two (2) members who should engaged in chips production and master the techniques to produce quality chips through OJT. The selected eight (8) members were supposed to be resource persons who could help other members upgrade their skills to produce quality chips afterward. In fact, some selected members, especially those from Rieu, were not able to participate in a series of OJT as their houses were far from the venue of OJT courses, but non-selected members in Lilitai and Raifato 																				

Topics / Techniques	Month of training	Summary of Activities																																				
		<p>have voluntarily taken part in OJT courses. The following table shows the OJT courses done by the members as of the end of February 2014.</p> <p style="text-align: center;">Hands-on Training Sessions held in the Demonstration Plots</p> <table border="1"> <thead> <tr> <th>Topics</th> <th>No. of groups</th> <th>Date of Session</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td>Use of slicer</td> <td>4 groups</td> <td>Aug.16, 2013</td> <td>9 members</td> </tr> <tr> <td>Frying and seasoning chips</td> <td>3 groups</td> <td>Sep. 24, 2013</td> <td>6 members</td> </tr> <tr> <td>Preparation of the products for the exhibition</td> <td>3 groups</td> <td>Oct. 15, 2013</td> <td>7 members</td> </tr> <tr> <td>Frying and seasoning chips</td> <td>3 groups</td> <td>Oct. 22, 2013</td> <td>9 members</td> </tr> <tr> <td>Improvement of the seasoning</td> <td>3 groups</td> <td>Nov. 6 & 14, 2013</td> <td>20 members in total</td> </tr> <tr> <td>Production of cassava chips for delivery to Kor Timot</td> <td>3 groups</td> <td>Nov. 25, Dec. 10, & 11, 2013</td> <td>31 members in total</td> </tr> <tr> <td>Production of cassava chips for exhibition</td> <td>3 groups</td> <td>Dec.16, 2013</td> <td>13 members</td> </tr> <tr> <td>Chips production of delivery to the buyers</td> <td>3 groups</td> <td>Jan. 23, 30, Feb. 6 & 11, 2014</td> <td>45 members in total</td> </tr> </tbody> </table> <p><i>Source: USC-C TL (2014)</i></p> <ul style="list-style-type: none"> ◆ As a result of the continuous efforts to improve the quality, the members have become able to produce quality cassava chips which could be marketed in Dili. ◆ The members of the women' groups had also engaged in the production of herb tea using daleta leaves and lime or avocado leaves available in the sucos in August and September 2013. 	Topics	No. of groups	Date of Session	No. of participants	Use of slicer	4 groups	Aug.16, 2013	9 members	Frying and seasoning chips	3 groups	Sep. 24, 2013	6 members	Preparation of the products for the exhibition	3 groups	Oct. 15, 2013	7 members	Frying and seasoning chips	3 groups	Oct. 22, 2013	9 members	Improvement of the seasoning	3 groups	Nov. 6 & 14, 2013	20 members in total	Production of cassava chips for delivery to Kor Timot	3 groups	Nov. 25, Dec. 10, & 11, 2013	31 members in total	Production of cassava chips for exhibition	3 groups	Dec.16, 2013	13 members	Chips production of delivery to the buyers	3 groups	Jan. 23, 30, Feb. 6 & 11, 2014	45 members in total
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Marketing promotion of the product	May 2013 – May 2014	<ul style="list-style-type: none"> ◆ The NGO and JICA Project Team had carried out the following promotion activities to market the product (cassava chips) produced by the women groups in the major markets in Dili. <p style="text-align: center;">Hands-on Training Sessions held in the Demonstration Plots</p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Date of Action</th> <th>Purpose and Result</th> </tr> </thead> <tbody> <tr> <td>Contact with an NGO (Kor Timor) responsible for the SIPI project</td> <td>Oct. 21, 2013</td> <td>The NGO and the JICA Project Team brought a sample of cassava chip to Kor Timor to get the feedback from the organization.</td> </tr> <tr> <td>Promotion of cassava chips in the MAF's expo</td> <td>Oct. 16, 2013</td> <td>The NGO and the JICA Project Team displayed cassava chips in the food expo organized by MAF. A total of 16 packages of cassava chips were sold at the expo.</td> </tr> <tr> <td>Negotiation and agreement with Kor Timor about sales of cassava chips</td> <td>Nov. 27, 2013</td> <td>As a result of improvement of the quality of cassava chips, the NGO and Kor Timor agreed to sell cassava chips on a consignment agreement at the antenna shop run by Kor Timor.</td> </tr> <tr> <td>Promotion of cassava chips at the antenna shop of Kor Timor</td> <td>Dec.13, 2013</td> <td>The NGO arranged and organized a tasting event at the antenna shop of Kor Timor, so as to increase potential consumers.</td> </tr> <tr> <td>Promotion of cassava chips in the exhibition</td> <td>Dec.18 & 23, 2013</td> <td>The NGO displayed and introduced cassava chips at a booth in the exhibition. A total of 12 women attended the exhibition.</td> </tr> <tr> <td>Contact with a large supermarket (PATEO) to market cassava chips</td> <td>Jan.31, 2014</td> <td>The NGO and the JICA Project Team brought a sample of cassava chip to PATEO in Dili. PATEO agreed to buy 50 packages of cassava chips from the NGO to sell them in the shop.</td> </tr> </tbody> </table> <p><i>Source: USC-C TL (2014)</i></p>	Activity	Date of Action	Purpose and Result	Contact with an NGO (Kor Timor) responsible for the SIPI project	Oct. 21, 2013	The NGO and the JICA Project Team brought a sample of cassava chip to Kor Timor to get the feedback from the organization.	Promotion of cassava chips in the MAF's expo	Oct. 16, 2013	The NGO and the JICA Project Team displayed cassava chips in the food expo organized by MAF. A total of 16 packages of cassava chips were sold at the expo.	Negotiation and agreement with Kor Timor about sales of cassava chips	Nov. 27, 2013	As a result of improvement of the quality of cassava chips, the NGO and Kor Timor agreed to sell cassava chips on a consignment agreement at the antenna shop run by Kor Timor.	Promotion of cassava chips at the antenna shop of Kor Timor	Dec.13, 2013	The NGO arranged and organized a tasting event at the antenna shop of Kor Timor, so as to increase potential consumers.	Promotion of cassava chips in the exhibition	Dec.18 & 23, 2013	The NGO displayed and introduced cassava chips at a booth in the exhibition. A total of 12 women attended the exhibition.	Contact with a large supermarket (PATEO) to market cassava chips	Jan.31, 2014	The NGO and the JICA Project Team brought a sample of cassava chip to PATEO in Dili. PATEO agreed to buy 50 packages of cassava chips from the NGO to sell them in the shop.															
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Discussion on benefit sharing	Feb. 2014	<ul style="list-style-type: none"> ◆ As the women groups had earned a total of US\$ 540 from the sales of cassava chips as of the end of January 2014, the NGO had a meeting with a total of 15 members of the women groups to discuss how they would manage and use the earnings. The participants decided that i) the NGO should manage the earnings for the meantime, ii) the earnings should be used for operations of cassava chips production, and iii) part of them should be used for other activities to give benefit to those who have worked for cassava chips production. 																																				

c. SPTPP-MP in Sucos Madabeno and Talitu

Topics / Techniques	Month of training	Summary of Activities												
Reorganization of members of the beneficiaries' groups	Mar. 2013	<ul style="list-style-type: none"> ◆ Prior to the conducts of the 2nd year FFSs, the beneficiaries' groups reviewed and revised the membership as shown below. <p style="text-align: center;">Reorganization of the Beneficiaries' Groups</p> <table border="1"> <thead> <tr> <th>Suco</th> <th>Aldeia</th> <th>No. of Sub-groups</th> <th>Average No. of members</th> </tr> </thead> <tbody> <tr> <td>Madabeno</td> <td>6 aldeias</td> <td>9 groups</td> <td>11-36 members/group Total: 117 members</td> </tr> <tr> <td>Tlitu</td> <td>4 aldeias</td> <td>5 groups</td> <td>15-33 members/group Total: 221 members</td> </tr> </tbody> </table> <p><i>Source: Halarae Foundation (2013)</i></p> <ul style="list-style-type: none"> ◆ In response to the request made by members, the NGO and the beneficiaries' groups agreed to divide some of the beneficiaries' groups considering the 	Suco	Aldeia	No. of Sub-groups	Average No. of members	Madabeno	6 aldeias	9 groups	11-36 members/group Total: 117 members	Tlitu	4 aldeias	5 groups	15-33 members/group Total: 221 members
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		accessibility to the nurseries developed in the first year. It was also agreed that each group would develop a nursery for the 2 nd year production.																																														
Determination of the Targets in 2013/2014	Mar. and Apr. 2013	<p>◆ The NGO also had a meeting with the beneficiaries' groups to discuss the types and number of seedlings to be produced in the nurseries in 2013/2014. All the beneficiaries' groups showed their interest in fruits and industrial plants as show below.</p> <p style="text-align: center;">Types and Numbers of Seedlings to be produced in the Nurseries</p> <table border="1"> <thead> <tr> <th>Suco</th> <th>Types of seedlings</th> <th>No. of seedlings</th> </tr> </thead> <tbody> <tr> <td>Madabeno</td> <td>Rambuta, Longan, Orange/Citrus, Sandalwood, Clove, Mahogany, Teak, and Casuarina</td> <td>45 – 75 seedlings/member</td> </tr> <tr> <td>Tlitu</td> <td>Rambuta, Longan, Orange/Citrus, Sandalwood, Clove, and Mahogany</td> <td>40 – 60 seedlings/member</td> </tr> </tbody> </table> <p><i>Source: Halarae Foundation (2014)</i></p>	Suco	Types of seedlings	No. of seedlings	Madabeno	Rambuta, Longan, Orange/Citrus, Sandalwood, Clove, Mahogany, Teak, and Casuarina	45 – 75 seedlings/member	Tlitu	Rambuta, Longan, Orange/Citrus, Sandalwood, Clove, and Mahogany	40 – 60 seedlings/member																																					
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Hands-on training in producing seedlings	Mar. – Nov. 2013	<p>◆ Members of the beneficiaries' groups had engaged in the following hands-on training sessions in the nurseries to practice the techniques of establishing and operating a nursery.</p> <p style="text-align: center;">Hands-on Training Sessions held in the Demonstration Plots</p> <table border="1"> <thead> <tr> <th>Topic</th> <th>Suco</th> <th>Date of training</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Establishment/ of nurseries</td> <td>Talitu</td> <td>2 sessions on Mar. 19 and 20, 2013</td> <td>22 members in total</td> </tr> <tr> <td>Madabeno</td> <td>6 sessions from Mar. 18 to Apr. 3, 2013</td> <td>87 members in total</td> </tr> <tr> <td rowspan="2">Collection of soils and sands</td> <td>Talitu</td> <td>7 sessions on Mar. 13 and Apr. 10, 2013</td> <td>59 members in total</td> </tr> <tr> <td>Madabeno</td> <td>9 sessions from Mar. 20 to Apr. 15, 2013</td> <td>106 members in total</td> </tr> <tr> <td rowspan="2">Sowing of seeds in seedbeds</td> <td>Talitu</td> <td>6 sessions on Mar. 13 and Apr. 30, 2013</td> <td>82 members in total</td> </tr> <tr> <td>Madabeno</td> <td>13 sessions from Mar. 13 to Apr. 10, 2013</td> <td>194 members in total</td> </tr> <tr> <td rowspan="2">Mixing of soils and filling of mixture into poly bags</td> <td>Talitu</td> <td>5 sessions on Mar. 26 and Apr. 11, 2013</td> <td>70 members in total</td> </tr> <tr> <td>Madabeno</td> <td>9 sessions from Apr. 3 to 17, 2013</td> <td>130 members in total</td> </tr> <tr> <td rowspan="2">Transplanting of sprouts</td> <td>Talitu</td> <td>5 sessions on Apr. 15 and 25, 2013</td> <td>65 members in total</td> </tr> <tr> <td>Madabeno</td> <td>9 sessions from Apr. 9 to 22, 2013</td> <td>110 members in total</td> </tr> </tbody> </table> <p><i>Source: Halarae Foundation (2014)</i></p> <p>◆ The beneficiaries' groups that newly started SPTPP-MP in the 2nd year and those that decided to relocate their nurseries build nurseries with technical assistance of the NGO through the sessions in the 2nd year.</p> <div style="display: flex; justify-content: space-around;">   </div>	Topic	Suco	Date of training	No. of participants	Establishment/ of nurseries	Talitu	2 sessions on Mar. 19 and 20, 2013	22 members in total	Madabeno	6 sessions from Mar. 18 to Apr. 3, 2013	87 members in total	Collection of soils and sands	Talitu	7 sessions on Mar. 13 and Apr. 10, 2013	59 members in total	Madabeno	9 sessions from Mar. 20 to Apr. 15, 2013	106 members in total	Sowing of seeds in seedbeds	Talitu	6 sessions on Mar. 13 and Apr. 30, 2013	82 members in total	Madabeno	13 sessions from Mar. 13 to Apr. 10, 2013	194 members in total	Mixing of soils and filling of mixture into poly bags	Talitu	5 sessions on Mar. 26 and Apr. 11, 2013	70 members in total	Madabeno	9 sessions from Apr. 3 to 17, 2013	130 members in total	Transplanting of sprouts	Talitu	5 sessions on Apr. 15 and 25, 2013	65 members in total	Madabeno	9 sessions from Apr. 9 to 22, 2013	110 members in total							
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Hands-on training in planting seedlings	Jun. 2013 – Jan. 2014	<p>◆ Likewise, members of the beneficiaries' groups had taken part in the following hands-on training sessions in the demonstration plots to practice the techniques of planting seedlings.</p> <p style="text-align: center;">Hands-on Training Sessions held in the Demonstration Plots</p> <table border="1"> <thead> <tr> <th>Topic</th> <th>Suco</th> <th>Date of training</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Compost making</td> <td>Talitu</td> <td>20 sessions from Apr. 29 to Jun. 5, 2013</td> <td>189 members in total</td> </tr> <tr> <td>Madabeno</td> <td>27 sessions from Apr. 30 to Jun. 4, 2013</td> <td>292 members in total</td> </tr> <tr> <td rowspan="2">Maintenance of compost</td> <td>Talitu</td> <td>7 sessions from Jul. 16 to Sep. 18, 2013</td> <td>59 members in total</td> </tr> <tr> <td>Madabeno</td> <td>9 sessions from Jul. 8 to 29, 2013</td> <td>83 members in total</td> </tr> <tr> <td rowspan="2">Delineation of contour lines</td> <td>Talitu</td> <td>12 sessions from Jun. 25 to Aug. 15, 2013</td> <td>99 members in total</td> </tr> <tr> <td>Madabeno</td> <td>19 sessions from Jul. 10 to Sep. 30, 2013</td> <td>119 members in total</td> </tr> <tr> <td rowspan="2">Pitting</td> <td>Talitu</td> <td>6 sessions from Aug. 21 to Oct. 17, 2013</td> <td>35 members in total</td> </tr> <tr> <td>Madabeno</td> <td>10 sessions from Jul. 10 to Nov. 27, 2013</td> <td>144 members in total</td> </tr> <tr> <td rowspan="2">Refilling with compost application</td> <td>Talitu</td> <td>7 sessions from Jul. 14 to Oct. 17, 2013</td> <td>39 members in total</td> </tr> <tr> <td>Madabeno</td> <td>9 sessions from Jul. 24 to Nov. 29, 2013</td> <td>142 members in total</td> </tr> <tr> <td rowspan="2">Planting</td> <td>Talitu</td> <td>5 sessions from Nov. 26 to Dec. 9, 2013</td> <td>81 members in total</td> </tr> <tr> <td>Madabeno</td> <td>9 sessions from Nov. 25 to 29, 2013</td> <td>149 members in total</td> </tr> </tbody> </table> <p><i>Source: Halarae Foundation (2014)</i></p>	Topic	Suco	Date of training	No. of participants	Compost making	Talitu	20 sessions from Apr. 29 to Jun. 5, 2013	189 members in total	Madabeno	27 sessions from Apr. 30 to Jun. 4, 2013	292 members in total	Maintenance of compost	Talitu	7 sessions from Jul. 16 to Sep. 18, 2013	59 members in total	Madabeno	9 sessions from Jul. 8 to 29, 2013	83 members in total	Delineation of contour lines	Talitu	12 sessions from Jun. 25 to Aug. 15, 2013	99 members in total	Madabeno	19 sessions from Jul. 10 to Sep. 30, 2013	119 members in total	Pitting	Talitu	6 sessions from Aug. 21 to Oct. 17, 2013	35 members in total	Madabeno	10 sessions from Jul. 10 to Nov. 27, 2013	144 members in total	Refilling with compost application	Talitu	7 sessions from Jul. 14 to Oct. 17, 2013	39 members in total	Madabeno	9 sessions from Jul. 24 to Nov. 29, 2013	142 members in total	Planting	Talitu	5 sessions from Nov. 26 to Dec. 9, 2013	81 members in total	Madabeno	9 sessions from Nov. 25 to 29, 2013	149 members in total
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OJT in operating a nursery and planting seedlings	Mar. 2013 – Feb. 2014	<p>◆ Aside from the hands-on training sessions, members of the groups had engaged in the nursery operations and land preparation for planting trees in the demonstration plots as well as the individual plots.</p> 																																														

d. SUFP-MP in Sucos Madabeno and Talitu

Topics / Techniques	Month of training	Summary of Activities
Reorganization of members of	Apr. 2013	◆ Like SUFP with CBSE-MP in Sucos Faturasa and Fadabloco, the NGO assisted the beneficiaries' groups in the organization of sub-groups under the respective

Topics / Techniques	Month of training	Summary of Activities																																																																																															
the beneficiaries' groups		<p>beneficiaries' groups based on the customary collective working system in the villages to introduce the two-step training approach. A total of 20 sub-groups were organized in both villages as listed below.</p> <p style="text-align: center;">Reorganization of the Beneficiaries' Groups</p> <table border="1"> <thead> <tr> <th>Suco</th> <th>No. of groups</th> <th>No. of Sub-groups</th> <th>Average No. of members</th> </tr> </thead> <tbody> <tr> <td>Talitu</td> <td>2 groups</td> <td>4 sub-groups</td> <td>13~18 members/sub-group Total: 62 members</td> </tr> <tr> <td>Madabeno</td> <td>8 groups</td> <td>16 sub-groups</td> <td>7~17 members/sub-group Total: 203 members</td> </tr> </tbody> </table> <p><i>Source: Halarae Foundation(2013)</i></p>	Suco	No. of groups	No. of Sub-groups	Average No. of members	Talitu	2 groups	4 sub-groups	13~18 members/sub-group Total: 62 members	Madabeno	8 groups	16 sub-groups	7~17 members/sub-group Total: 203 members																																																																																			
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Hands-on training in the Main Demonstration Plots	May 2013 – Jun. 2014	<p>◆ Like in SUFP with CBSE-MP in Sucos Faturasa and Fadabloc, the NGO held almost the same hands-on training sessions except the ones for delineation of contour lines and application of soil conservation measures in the demonstration plots in Sucos Talitu and Madabeno.</p> <p style="text-align: center;">Hands-on Training Sessions held in the Demonstration Plots</p> <table border="1"> <thead> <tr> <th>Topic</th> <th>Suco</th> <th>Date of training</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Compost making</td> <td>Talitu</td> <td>3 sessions on June 11, 18 and 19, 2013</td> <td>28 members in total</td> </tr> <tr> <td>Madabeno</td> <td>15 sessions from Jun. 4 to 18, 2013</td> <td>159 members in total</td> </tr> <tr> <td rowspan="2">Maintenance of compost</td> <td>Talitu</td> <td>1 sessions on Jun. 11, 2013</td> <td>8 members in total</td> </tr> <tr> <td>Madabeno</td> <td>5 sessions 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Hands-on training in the Sub-group Demonstration Plots	May 2013 – Jun. 2014	<p>◆ Members had further practiced the following techniques in the sub-group demonstration plots. Initially, only key techniques were supposed to be handled in the sub-group demonstration plots, but the NGO arranged and held the sessions on almost all the techniques introduced in the demonstration plots to facilitate the dissemination of the techniques among members of the beneficiaries' groups.</p> <p style="text-align: center;">Training Sessions held in the Sub-group Demonstration Plots</p> <table border="1"> <thead> <tr> <th>Topic</th> <th>Suco</th> <th>Date of training</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Compost making</td> <td>Talitu</td> <td>12 sessions from Jun. 17 to Jul. 4, 2013</td> <td>74 members in total</td> </tr> <tr> <td>Madabeno</td> <td>40 sessions from Jun. 3 to Jul. 25</td> <td>272 members in total</td> </tr> <tr> <td rowspan="2">Maintenance of compost</td> <td>Talitu</td> <td>4 sessions from Jun. 17 to Sep. 3</td> <td>43 members in total</td> </tr> <tr> <td>Madabeno</td> <td>15 sessions from Jul. 29 to Sep. 5</td> <td>89 members in total</td> </tr> <tr> <td rowspan="2">Delineation of contour lines <1</td> <td>Talitu</td> <td>4 sessions on Aug. 1 and 7</td> <td>29 members in total</td> </tr> <tr> <td>Madabeno</td> <td>29 sessions from Jul. 17 to Sep. 18</td> <td>183 members in total</td> </tr> <tr> <td rowspan="2">Application of contour compost</td> <td>Talitu</td> <td>3 sessions from Aug. 7 to Sep. 5</td> <td>34 members in total</td> </tr> <tr> <td>Madabeno</td> <td>22 sessions from Aug. 5 to Oct. 9</td> <td>119 members in total</td> </tr> <tr> <td rowspan="2">Plowing and application of compost</td> <td>Talitu</td> <td>10 sessions on Sep. 2 and Oct. 28</td> <td>54 members in total</td> </tr> <tr> <td>Madabeno</td> <td>44 sessions from Sep. 5 to Nov. 6</td> <td>236 members in total</td> </tr> <tr> <td rowspan="2">Seed selection and sowing</td> <td>Talitu</td> <td>9 sessions from Nov. 13 to 21, 2013</td> <td>73 members in total</td> </tr> <tr> <td>Madabeno</td> <td>32 sessions from Nov. 5 to 25, 2013</td> <td>251 members in total</td> </tr> <tr> <td rowspan="2">Planting of hedgerows <2</td> <td>Talitu</td> <td>4 sessions on Nov. 20 and 25, 2013</td> <td>29 members in total</td> </tr> <tr> <td>Madabeno</td> <td>16 sessions from Nov. 19 to 27, 2013</td> <td>100 members in total</td> </tr> <tr> <td rowspan="2">Preparation of liquid fertilizer</td> <td>Talitu</td> <td>2 sessions on Nov. 26, 2013</td> <td>14 members in total</td> </tr> <tr> <td>Madabeno</td> <td>1 sessions on Nov. 21, 2013</td> <td>15 members in total</td> </tr> </tbody> </table>	Topic	Suco	Date of training	No. of participants	Compost making	Talitu	12 sessions from Jun. 17 to Jul. 4, 2013	74 members in total	Madabeno	40 sessions from Jun. 3 to Jul. 25	272 members in total	Maintenance of compost	Talitu	4 sessions from Jun. 17 to Sep. 3	43 members in total	Madabeno	15 sessions from Jul. 29 to Sep. 5	89 members in total	Delineation of contour lines <1	Talitu	4 sessions on Aug. 1 and 7	29 members in total	Madabeno	29 sessions from Jul. 17 to Sep. 18	183 members in total	Application of contour compost	Talitu	3 sessions from Aug. 7 to Sep. 5	34 members in total	Madabeno	22 sessions from Aug. 5 to Oct. 9	119 members in total	Plowing and application of compost	Talitu	10 sessions on Sep. 2 and Oct. 28	54 members in total	Madabeno	44 sessions from Sep. 5 to Nov. 6	236 members in total	Seed selection and sowing	Talitu	9 sessions from Nov. 13 to 21, 2013	73 members in total	Madabeno	32 sessions from Nov. 5 to 25, 2013	251 members in total	Planting of hedgerows <2	Talitu	4 sessions on Nov. 20 and 25, 2013	29 members in total	Madabeno	16 sessions from Nov. 19 to 27, 2013	100 members in total	Preparation of liquid fertilizer	Talitu	2 sessions on Nov. 26, 2013	14 members in total	Madabeno	1 sessions on Nov. 21, 2013	15 members in total																																			
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Delineation of contour lines <1	Talitu	4 sessions on Aug. 1 and 7	29 members in total																																																																																														
	Madabeno	29 sessions from Jul. 17 to Sep. 18	183 members in total																																																																																														
Application of contour compost	Talitu	3 sessions from Aug. 7 to Sep. 5	34 members in total																																																																																														
	Madabeno	22 sessions from Aug. 5 to Oct. 9	119 members in total																																																																																														
Plowing and application of compost	Talitu	10 sessions on Sep. 2 and Oct. 28	54 members in total																																																																																														
	Madabeno	44 sessions from Sep. 5 to Nov. 6	236 members in total																																																																																														
Seed selection and sowing	Talitu	9 sessions from Nov. 13 to 21, 2013	73 members in total																																																																																														
	Madabeno	32 sessions from Nov. 5 to 25, 2013	251 members in total																																																																																														
Planting of hedgerows <2	Talitu	4 sessions on Nov. 20 and 25, 2013	29 members in total																																																																																														
	Madabeno	16 sessions from Nov. 19 to 27, 2013	100 members in total																																																																																														
Preparation of liquid fertilizer	Talitu	2 sessions on Nov. 26, 2013	14 members in total																																																																																														
	Madabeno	1 sessions on Nov. 21, 2013	15 members in total																																																																																														

Topics / Techniques	Month of training	Summary of Activities																						
		Planting of other crops <2	Talitu Madabeno	8 sessions from Nov. 18, 2013 to Jan. 22, 2014 58 sessions from Nov. 26, 2013 to Jan. 28, 2014	50 members in total 274 members in total																			
		Maintenance of farm <2	Talitu Madabeno	4 sessions on Jan. 16 and 21, 2014 16 sessions from Dec. 17, 2013 to Jan. 8, 2014	20 members in total 70 members in total																			
		Making animal pen <2	Talitu Madabeno	N.A. <3 9 sessions from Feb.12 and 20, 2014	N.A. <3. 44 members in total																			
		Harvesting of maize <2	Talitu Madabeno	2 sessions on Apr. 3 and 4, 2014 14 sessions from Feb.12 and 20, 2014	24members in total 87 members in total																			
		Post-harvesting of maize <2	Talitu Madabeno	3 sessions from Mar. 17 to Apr. 22, 2014 14 sessions from Apr.14 and May 28, 2014	26 members in total 91 members in total																			
		<p>Note: <1 The topic of "Delineation of contour lines" is composed of two agenda: i) making of A-frames and ii) delineation of contour lines using A-frames. <2 The training courses were arranged according to the request from the members. <3 N.A. means no data is available. Source: Halarae Foundation (2014)</p>																						
		Application of techniques	May 2013 – Feb. 2014	<p>◆ Like in the case of SUFP with CBSE-MP in Sucos Fadabloco and Faturasa, members of the beneficiaries' groups applied the techniques that they practiced in the sub-group demonstration plots to their own farms. According to the NGO, all the 232 members (or 100 % of the members) produced compost and applied the contour composting technique to their own farms, while 204 members or 88% of the members used liquid fertilizer for additional fertilization to maize.</p> <p style="text-align: center;">Reorganization of the Beneficiaries' Groups</p> <table border="1"> <thead> <tr> <th>Suco</th> <th>No. of beneficiaries</th> <th>Compost making</th> <th>Application of contour compost</th> <th>Application of liquid fertilizer</th> </tr> </thead> <tbody> <tr> <td>Talitu</td> <td>52</td> <td>52 / 52 (100%)</td> <td>52 / 52 (100%)</td> <td>52 / 52 (100%)</td> </tr> <tr> <td>Madabeno</td> <td>180</td> <td>180 / 180 (100%)</td> <td>180 / 180 (100%)</td> <td>152/ 180 (84%)</td> </tr> <tr> <td>Grand total</td> <td>232</td> <td>232 / 232 (100%)</td> <td>232 / 232 (100%)</td> <td>204/ 232 (88%)</td> </tr> </tbody> </table> <p>Source: Halarae Foundation (2014)</p>	Suco	No. of beneficiaries	Compost making	Application of contour compost	Application of liquid fertilizer	Talitu	52	52 / 52 (100%)	52 / 52 (100%)	52 / 52 (100%)	Madabeno	180	180 / 180 (100%)	180 / 180 (100%)	152/ 180 (84%)	Grand total	232	232 / 232 (100%)	232 / 232 (100%)	204/ 232 (88%)
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Source: JICA Project Team (2015)

(6) Results of the Second (2nd) Year FFSs

The results of the 2nd year FFSs are summarized below

Summary of Results of the 2nd Year FFSs and Technical Assistance

Micro Program	Suco	Results of the Activities																																																																												
SUFP with CBSE-MP	Faturasa Fadabloco	<p>◆ In addition to the 10 demonstration plots developed in the 1st year a total of 31 sub-group demonstration plots were developed by members through the 2nd year FFSs.</p> <p>◆ The beneficiaries groups harvested maize, peanut, and beans planted in the main and sub-group demonstration plots. The following table shows the production of crops and volumes of seeds planted in the demonstration plots.</p> <p style="text-align: center;">Harvest volume at the demonstration plots for SUFP with CBSE-MP</p> <p>a. Main demonstration plots (unit: kg)</p> <table border="1"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">No. of plots</th> <th colspan="2">Maize (Improved)</th> <th colspan="2">Peanuts (Improved)</th> <th colspan="2">Red Bean (Local)</th> </tr> <tr> <th>Sown Seed</th> <th>Harvest</th> <th>Sown Seed</th> <th>Harvest</th> <th>Sown Seed</th> <th>Harvest</th> </tr> </thead> <tbody> <tr> <td>Faturasa</td> <td>6 plots</td> <td>12.4</td> <td>437.0</td> <td>10.0</td> <td>27.0</td> <td>9.0</td> <td>74.0</td> </tr> <tr> <td>Fadabloco</td> <td>4 plots</td> <td>7.5</td> <td>414.2</td> <td>8.0</td> <td>145.1</td> <td>4.0</td> <td>98.0</td> </tr> <tr> <td>Total</td> <td>10 plots</td> <td>19.9</td> <td>851.2</td> <td>18.0</td> <td>172.1</td> <td>13.0</td> <td>172.0</td> </tr> </tbody> </table> <p>b. Sub-group demonstration plots (unit: kg)</p> <table border="1"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">No. of plots</th> <th colspan="2">Maize (Improved)</th> <th colspan="2">Peanuts (Improved)</th> <th colspan="2">Red Bean (Local)</th> </tr> <tr> <th>Sown Seed</th> <th>Harvest</th> <th>Sown Seed</th> <th>Harvest</th> <th>Sown Seed</th> <th>Harvest</th> </tr> </thead> <tbody> <tr> <td>Faturasa</td> <td>15 plots</td> <td>25.0</td> <td>742.0</td> <td>12.0</td> <td>5.0</td> <td>15</td> <td>107.6</td> </tr> <tr> <td>Fadabloco</td> <td>16 plots</td> <td>16.2</td> <td>682.8</td> <td>16.0</td> <td>153.0</td> <td>16.0</td> <td>256.0</td> </tr> <tr> <td>Total</td> <td>31 plots</td> <td>41.2</td> <td>1,424.8</td> <td>28.0</td> <td>158.0</td> <td>31.0</td> <td>363.6</td> </tr> </tbody> </table> <p>Source: USC-CTL (2014)</p> <p>◆ In general, the productivity of maize in the demonstration plots was not as high as it was expected to be or rather lower due to the fluctuated rainfalls and insufficient application of compost, although some demonstration plots got higher outputs (harvests) as compared to the national average.</p> <p>◆ The beneficiaries' groups were able to save substantial amount of seeds of improved varieties of maize and peanut for next cropping as shown below.</p>	Suco	No. of plots	Maize (Improved)		Peanuts (Improved)		Red Bean (Local)		Sown Seed	Harvest	Sown Seed	Harvest	Sown Seed	Harvest	Faturasa	6 plots	12.4	437.0	10.0	27.0	9.0	74.0	Fadabloco	4 plots	7.5	414.2	8.0	145.1	4.0	98.0	Total	10 plots	19.9	851.2	18.0	172.1	13.0	172.0	Suco	No. of plots	Maize (Improved)		Peanuts (Improved)		Red Bean (Local)		Sown Seed	Harvest	Sown Seed	Harvest	Sown Seed	Harvest	Faturasa	15 plots	25.0	742.0	12.0	5.0	15	107.6	Fadabloco	16 plots	16.2	682.8	16.0	153.0	16.0	256.0	Total	31 plots	41.2	1,424.8	28.0	158.0	31.0	363.6
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IG/LD-MP	Fadabloco	<ul style="list-style-type: none"> The women groups that had engaged in cassava chips production had earned a total of US\$ 542.5 from the sales of cassava chips as of the end of February 2014. Besides, each women group had earned about US\$ 10 to 20 from the sales of dried sweet potato and repair of clothes using sewing machines. 																																																																																																
SPTPP-MP	Madabeno Talitu	<ul style="list-style-type: none"> A total of 14 nurseries were developed by the beneficiaries' groups in Sucos Madabeno and Talitu. About 26,700 seedlings, namely 8,960 seedlings in Talitu and 17,772 seedlings in Madabeno, had been raised through FFSs in 2013/2014. <p style="text-align: center;">No. of Seedlings produced to Members in 2013/2014 (Unit: Pcs.)</p> <table border="1"> <thead> <tr> <th>Species</th> <th>Madabeno</th> <th>Talitu</th> <th>Total</th> </tr> </thead> <tbody> <tr><td>Rambutan</td><td>1,050</td><td>735</td><td>1,785</td></tr> <tr><td>Longan</td><td>1,177</td><td>537</td><td>1,714</td></tr> <tr><td>Orange</td><td>1,635</td><td>983</td><td>2,618</td></tr> <tr><td>Citrus</td><td>964</td><td>870</td><td>1,834</td></tr> <tr><td>Sandalwood</td><td>4,037</td><td>2,119</td><td>6,156</td></tr> <tr><td>Clove</td><td>2,920</td><td>2,954</td><td>5,874</td></tr> <tr><td>Mahogany</td><td>2,773</td><td>434</td><td>3,207</td></tr> <tr><td>Teak</td><td>2,062</td><td>291</td><td>2,353</td></tr> <tr><td>Salak</td><td>0</td><td>46</td><td>46</td></tr> <tr><td>Casuarina</td><td>1,154</td><td>0</td><td>1,154</td></tr> <tr><td>Total</td><td>17,772</td><td>8,960</td><td>26,732</td></tr> </tbody> </table> <p><i>Source: Halarae Foundation (2014)</i></p> <ul style="list-style-type: none"> Out of the seedlings produced in the nurseries, about 22,600 seedlings, namely 7,802 seedlings in Talitu and 14,795 seedlings in Madabeno, were shared among members of the beneficiaries' groups in both villages for planting. About 3,360 seedlings were left in the nurseries for distribution in 2014/2015 as those were still too small to plant. <p style="text-align: center;">No. of Seedlings planted by Members in 2013/2014 (Unit: Pcs.)</p> <table border="1"> <thead> <tr> <th>Species</th> <th>Talitu</th> <th>Madabeno</th> <th>Total</th> </tr> </thead> <tbody> <tr><td>Rambutan</td><td>735</td><td>1,080</td><td>1,815</td></tr> <tr><td>Longan</td><td>537</td><td>1,127 (27)</td><td>1,664 (27)</td></tr> <tr><td>Orange</td><td>583 (140)</td><td>1,541 (106)</td><td>2,124 (246)</td></tr> <tr><td>Citrus</td><td>870</td><td>876 (41)</td><td>1,746 (41)</td></tr> <tr><td>Sandalwood</td><td>1,361 (758)</td><td>1,506 (2,244)</td><td>2,867 (3,032)</td></tr> <tr><td>Clove</td><td>2,945</td><td>2,790 (40)</td><td>5,744 (40)</td></tr> <tr><td>Mahogany</td><td>434</td><td>2,758</td><td>3,192</td></tr> <tr><td>Teak</td><td>291</td><td>1,963</td><td>2,254</td></tr> <tr><td>Kakeu</td><td>0</td><td>1,154</td><td>1,154</td></tr> <tr><td>Salak</td><td>46</td><td>0</td><td>46</td></tr> <tr><td>Total</td><td>7,802 (898)</td><td>14,795 (2,458)</td><td>22,587 (3,356)</td></tr> </tbody> </table> <p><i>Source: Halarae Foundation (2014)</i></p> <ul style="list-style-type: none"> In addition to those produced in 2013/2014, the beneficiaries' groups also distributed those that had been grown in the nurseries from 2012. All the members who received seedlings prepared their plots for planting by applying the techniques that they practiced in the demonstration plots with technical assistance of the NGO. 	Species	Madabeno	Talitu	Total	Rambutan	1,050	735	1,785	Longan	1,177	537	1,714	Orange	1,635	983	2,618	Citrus	964	870	1,834	Sandalwood	4,037	2,119	6,156	Clove	2,920	2,954	5,874	Mahogany	2,773	434	3,207	Teak	2,062	291	2,353	Salak	0	46	46	Casuarina	1,154	0	1,154	Total	17,772	8,960	26,732	Species	Talitu	Madabeno	Total	Rambutan	735	1,080	1,815	Longan	537	1,127 (27)	1,664 (27)	Orange	583 (140)	1,541 (106)	2,124 (246)	Citrus	870	876 (41)	1,746 (41)	Sandalwood	1,361 (758)	1,506 (2,244)	2,867 (3,032)	Clove	2,945	2,790 (40)	5,744 (40)	Mahogany	434	2,758	3,192	Teak	291	1,963	2,254	Kakeu	0	1,154	1,154	Salak	46	0	46	Total	7,802 (898)	14,795 (2,458)	22,587 (3,356)
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SUFP-MP	Madabeno Talitu	<ul style="list-style-type: none"> Members of the beneficiaries' groups developed a total of 20 sub-group demonstration plots over the course of the 2nd year FFSs in addition to the existing demonstration plots. Generally, the yields of maize in the main and sub-group demonstration plots were as low as the national average or rather lower than the same except some of the main and sub-demonstration plots. Unstable rainfalls, low soil fertility, and insufficient application of compost were considered as the main causes of low yield. <p style="text-align: center;">Harvest volume at the demonstration plots for SUFP with CBSE-MP (unit: kg)</p> <p>a. Main demonstration plots</p> <table border="1"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">No. of plots</th> <th colspan="2">Maize (Improved)</th> <th colspan="2">Red beans (local)</th> <th colspan="2">Peanuts (Local)</th> </tr> <tr> <th>Volume of Seed</th> <th>Harvest</th> <th>Volume of Seed</th> <th>Harvest</th> <th>Volume of Seed</th> <th>Harvest</th> </tr> </thead> <tbody> <tr> <td>Talitu</td> <td>1 plot</td> <td>1.0</td> <td>35.0</td> <td>nil</td> <td>nil</td> <td>0.5</td> <td>nil</td> </tr> <tr> <td>Madabeno</td> <td>5 plots</td> <td>5.0</td> <td>192.0</td> <td>5.0</td> <td>5.0</td> <td>2.0</td> <td>-</td> </tr> <tr> <td>Total</td> <td>6 plots</td> <td>6.0</td> <td>227.0</td> <td>5.0</td> <td>5.0</td> <td>2.5</td> <td>-</td> </tr> </tbody> </table>	Suco	No. of plots	Maize (Improved)		Red beans (local)		Peanuts (Local)		Volume of Seed	Harvest	Volume of Seed	Harvest	Volume of Seed	Harvest	Talitu	1 plot	1.0	35.0	nil	nil	0.5	nil	Madabeno	5 plots	5.0	192.0	5.0	5.0	2.0	-	Total	6 plots	6.0	227.0	5.0	5.0	2.5	-																																																										
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Total	6 plots	6.0	227.0	5.0	5.0	2.5	-																																																																																											

Micro Program	Suco	Results of the Activities							
		b. Sub-group demonstration plots (unit: kg)							
		Suco	No. of plots	Maize (Improved)		Red Bean (Local)		Soy beans (Local)	
				Volume of Seed	Harvest	Volume of Seed	Harvest	Volume of Seed	Harvest
		Talitu	4 plots	4.0	90.0			-	-
		Madabeno	16 plots	16.0	708.0	16.0	32.0	8.0	nil
		Total	20 plots	20.0	798.0	16.0	32.0	8.0	nil
		<i>Source: Halarae Foundation (2014)</i>							
		◆ The beneficiaries groups saved and stored about 30 % of the total harvests of improved maize for next cropping in 2014/2015 as shown below.							
		Volume of Seeds of Maize stored for Cropping in 2014/2015 (unit: kg)							
		Suco	Main Demonstration plots	Sub-group demonstration plots		Peanuts (Local)			
		Talitu	10.0/1 plot	15.0/4plots		25.0			
		Madabeno	49.0/5 plots	197.0/16 plots		246.0			
		Total	59.0/6 plots	212.0/20 plots		271.0			
		<i>Source: Halarae Foundation (2014)</i>							

Source: JICA Project Team (2015)

(7) Participatory Monitoring and Evaluation of the Micro Programs

Like in the case of the 1st year, the beneficiaries' groups and women groups evaluated the training courses as well as the results of the 2nd year FFSs in February/March 2014. They also discussed whether or not they would like to continue the micro program activities as the 3rd year FFSs. All the beneficiaries' groups showed their intention to continue the same activities as they judged that the activities introduced by the micro programs were effective in improving their livelihoods, although the micro program were supposed to be implemented for only two (2) years in the first batch sucos in the originak work plans. It was, therefore, agreed by the beneficiaries' groups and the JICA Project Team as well as the NGOs that the groups would continue the micro program activities on the following conditions:

- i) Seedling production under SPTPP-MP in Sucos Talitu and Madabeno should be continued with the financial assistance from the GoTL by using the scheme named "the Community Development Fund for Reforestation."
- ii) The 3rd year FFSs of SUFP with CBSE-MP and SUFP-MP in the four sucos (Sucos Faturasa, Fadabloco, Madabeno, and Talitu) should be continued with limited support from the NGOs.
- iii) Livelihood activities effective in generating cash income or improving local livelihoods should be continued on the initiative of the women groups with technical assistance of the NGO.

The groups developed annual work plans of the micro programs in 2014/2015 along the lines given above.

(8) Third (3rd) Year FFSs and Technical Assistance

The activities carried out in the course of the 3rd year FFSs in the target sucos are summarized below.

Summary of the 3rd Year Technical Assistance


a. SUFP with CBSE-MP in Sucos Faturasa and Fadabloco

Topics / Techniques	Month of training	Summary of Activities
FFSs held in the Main Demonstration Plots and	May 2014 – Jun. 2015	◆ Members of the beneficiaries' groups had engaged another round of FFSs in the main and sub-group demonstration plots as shown below.

Topics / Techniques	Month of training	Summary of Activities																																																																																															
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Application of Techniques to Individual Farms	May 2014 – Jun. 2015	<p>◆ The members of the beneficiaries groups had applied the same techniques that they practiced in the FFSs in the main and sub-group demonstration plots to their own farms with technical assistance from the NGO. As of the end of March 2015, all the 312 members had already applied the following key techniques to their own farms.</p> <ol style="list-style-type: none"> Compost making Contour composting terraces Application of compost Application of liquid fertilizer with weeding 																																																																																															


b. IG/LD-MP in Suco Fadabloco

Topics / Techniques	Month of training	Summary of Activities
General	Apr. 2014 – Jun. 2015	<p>◆ The women groups decided to continue the following activities to earn cash income on their own initiative.</p> <ol style="list-style-type: none"> Cassava chip production Herb tea production Use of sewing machines for repair and making of clothes
Cassava chips production	Apr. 2014 – Jun.	<p>◆ The women's groups had kept producing cassava chips even without technical assistance from the NGO. As a result of the continuous production, they were able</p>

Topics / Techniques	Month of training	Summary of Activities
	2015	<p>to produce 30 to 60 packages of cassava chips at a time on average. The NGO helped them check the quality of cassava chips, pack them into packages, and deliver the final products to the shops. A total of 2,487 packages of the cassava chips have been delivered to the buyers as of the end of June 2015.</p>  <ul style="list-style-type: none"> ◆ The NGO had assisted the women's groups in managing the earnings from the sales of cassava chips. According to the NGO, the total gross profit from the production of cassava chips came to more than US\$ 3,000 as of the end of June 2015.
Herbal Tea Production	Jan. - May 2015	<ul style="list-style-type: none"> ◆ The women groups and NGOs had a request from PARCIC to produce and deliver several kilograms of herbal tea made of black daleta leaves in January 2015, as a buyer in Japan had interest in buying the same. ◆ In response to the request, the women groups started collecting and processing black daleta leaves in January 2015 and had produced herbal tea until May/June 2015. As total of 13 members of the groups produced and delivered about 4 kg of herbal tea to PARCIC and earned US\$ 60 in total by selling them at a price of US\$ 15/kg.
Use of sewing machines	May 2014. – Jan. 2015	<ul style="list-style-type: none"> ◆ The women groups had been able to earn cash income from mending clothes of communities by using sewing machines. The NGO has periodically assisted the women's groups in improving their skills of using a sewing machine.
Additional training in producing salted vegetables	May – Jun. 2014	<ul style="list-style-type: none"> ◆ The NGO and the JICA Project Team held two (2) hands-on training sessions on production of salted vegetables. The first session was held with 13 members on May 23, 2014 and the members learned how to soak vegetables in salted water, while a total of 19 members learned to take pickled vegetables out from salted water in the sessions. ◆ As a result of the sessions, the groups produced 18 packages of salted vegetables.
Training on financial management	Oct. 2014. and Mar. 2015	<ul style="list-style-type: none"> ◆ The NGO with guidance of the JICA Project Team trained a total of 17 members on how to i) keep a book of account and ii) calculate the production costs and profits from total sales in October 2014. ◆ The NGO further held a two (2) days training course for four (4) treasures (the members responsible for keeping a book of account) in the groups in March 2015 to help them keep a book of account in a proper manner.
Participation in exhibitions	Nov. 2014. and Feb. 2015	<ul style="list-style-type: none"> ◆ Core members of the women groups participated in the following exhibitions held in Dili and had chances to introduce their products to guests who visited their booth. <ul style="list-style-type: none"> - Exhibition under the Climate Change Adaptation Conference organized by GCCA/World Vision in November 2015 - Exhibition of Local Agricultural Commodities organized by PARCIC in February 2015
Discussions on the use of earnings from the sales of cassava chips	Feb. 2015	<ul style="list-style-type: none"> ◆ The NGO together with the JICA Project Team held meetings with the women group in February 2015 to discuss how the groups would use the earnings (about US\$ 2,500 as of the time of the meetings) from the sales of cassava chips. The members who attended the meetings decided that they would use the earnings for benefiting members involved in cassava chips production in addition to the operations of chips production as shown below. <ul style="list-style-type: none"> - 20 % of the earnings would be shared among the members and saved as personal savings of the members. - 50 % of the earnings would be used for operations and expansion of the livelihood activities. - 30 % of the earnings would be used for micro credit. ◆ The members also discussed and decided rules on micro credit as follows. <ul style="list-style-type: none"> - The amount of loan per member should be from US\$ 50 to 100. - The interest rate is 6 % per annum. - The members who have actively participated in cassava chips production shall have a preferential right to use the scheme. - The members who have not participated in cassava chips production can use the scheme when they save more than US\$ 25 in the group's deposit. ◆ Appendix-3.8 stored in the CD attached to this report shows the rules of the women's groups on management of their earnings and micro credit.

c. SPTPP-MP in Sucos Madabeno and Talitu

Topics / Techniques	Month of training	Summary of Activities
Revision of the	Mar. 2014	<ul style="list-style-type: none"> ◆ The beneficiaries groups in Sucos Madabeno and Talitu decided to continue the

Topics / Techniques	Month of training	Summary of Activities																																																							
member lists of the beneficiaries' groups		<p>production of fruit seedlings in the existing nurseries in 2014/2015 by using the financial support from MAF's scheme named "the Community Development Fund for Reforestation in 2014."</p> <p>◆ Prior to the resumption of the nursery operations, the beneficiaries groups reviewed and revised the member lists of the respective groups with assistance from the NGO as shown below.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="3">Reorganization of the Beneficiaries' Groups</th> </tr> <tr> <th>Suco</th> <th>No. of groups</th> <th>No. of members</th> </tr> </thead> <tbody> <tr> <td>Talitu</td> <td>5 groups</td> <td>106 members</td> </tr> <tr> <td>Madabeno</td> <td>8 groups</td> <td>162 members</td> </tr> </tbody> </table> <p><i>Source: Halarae Foundation (2014)</i></p> <p>◆ A total of 268 members in 13 groups agreed to continue the seedling production in the nurseries in 2014/2015.</p>	Reorganization of the Beneficiaries' Groups			Suco	No. of groups	No. of members	Talitu	5 groups	106 members	Madabeno	8 groups	162 members																																											
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Seedling Production and Nursery Operations	Mar. 2014 – Feb. 2015	<p>◆ The beneficiaries groups had conducted the following activities in the nurseries with technical assistance of the NGO from March 2014 to January 2015.</p> <ul style="list-style-type: none"> - Sowing of seeds in seedbeds - Mixing of sands, soils and compost and filling mixed soils into seedling pots - Transplanting of sprouts into seedling pots - Preparation of liquid fertilizer and natural pesticide - Maintenance of seedlings (weeding, watering, and application of liquid fertilizer and natural pesticide) - Hardening of seedlings  <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="5">Activities done in the Nurseries</th> </tr> <tr> <th>Topics</th> <th>Suco</th> <th>No. of groups</th> <th>Dates of training</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Fixing of nurseries</td> <td>Madabeno</td> <td>8 groups</td> <td>Mar. 10 to 26, 2014</td> <td>84 members in total</td> </tr> <tr> <td>Talitu</td> <td>5 groups</td> <td>Mar. 25 to Apr. 10, 2014</td> <td>35 members in total</td> </tr> <tr> <td rowspan="2">Collection of soils and compost</td> <td>Madabeno</td> <td>8 groups</td> <td>Mar. 24 to Apr. 3, 2014</td> <td>69 members in total</td> </tr> <tr> <td>Talitu</td> <td>5 groups</td> <td>Mar. 18 to 27, 2014</td> <td>32 members in total</td> </tr> <tr> <td rowspan="2">Mixing of soils and filling them into seedling pots</td> <td>Madabeno</td> <td>8 groups</td> <td>Apr. 1 to 10, 2014</td> <td>78 members in total</td> </tr> <tr> <td>Talitu</td> <td>5 groups</td> <td>Mar. 25 to Apr. 15, 2014</td> <td>55 members in total</td> </tr> <tr> <td rowspan="2">Transplanting of sprouts</td> <td>Madabeno</td> <td>8 groups</td> <td>Apr. 8 to 23, 2014</td> <td>95 members in total</td> </tr> <tr> <td>Talitu</td> <td>5 groups</td> <td>Mar. 31 to May 12, 2014</td> <td>38 members in total</td> </tr> <tr> <td rowspan="2">Preparation of liquid fertilizer</td> <td>Madabeno</td> <td>8 groups</td> <td>May 26 to Nov. 11, 2014</td> <td>46 members in total</td> </tr> <tr> <td>Talitu</td> <td>5 groups</td> <td>Apr. 10 to Oct. 10, 2014</td> <td>27 members in total</td> </tr> </tbody> </table> <p><i>Source: Halarae Foundation (2015)</i></p> <p>◆ The nursery operations (e.g., watering, weeding, and application of liquid fertilizer, and hardening) had been carried out by members assigned for daily maintenance until the time when all the seedlings in the nurseries were distributed to members.</p>	Activities done in the Nurseries					Topics	Suco	No. of groups	Dates of training	No. of participants	Fixing of nurseries	Madabeno	8 groups	Mar. 10 to 26, 2014	84 members in total	Talitu	5 groups	Mar. 25 to Apr. 10, 2014	35 members in total	Collection of soils and compost	Madabeno	8 groups	Mar. 24 to Apr. 3, 2014	69 members in total	Talitu	5 groups	Mar. 18 to 27, 2014	32 members in total	Mixing of soils and filling them into seedling pots	Madabeno	8 groups	Apr. 1 to 10, 2014	78 members in total	Talitu	5 groups	Mar. 25 to Apr. 15, 2014	55 members in total	Transplanting of sprouts	Madabeno	8 groups	Apr. 8 to 23, 2014	95 members in total	Talitu	5 groups	Mar. 31 to May 12, 2014	38 members in total	Preparation of liquid fertilizer	Madabeno	8 groups	May 26 to Nov. 11, 2014	46 members in total	Talitu	5 groups	Apr. 10 to Oct. 10, 2014	27 members in total
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Planting of seedlings in their own plots	Mar. 2014 – Feb. 2015	<p>◆ The majority of members of the beneficiaries' groups applied the following techniques to their own farms/plots with technical assistance of the NGO before they received seedlings from the beneficiaries' groups.</p> <ul style="list-style-type: none"> - Alignment of pits for planting at proper spaces - Digging of large-sized pits - Application of compost when refilling soils 																																																							
Maintenance of seedlings	Feb.– Mar. 2015	<p>◆ Members of the beneficiaries' groups also maintained seedlings planted in 2013/2014 by applying the following techniques with technical assistance of the NGO.</p> <ul style="list-style-type: none"> - Weeding - Mulching - Application of liquid fertilizer 																																																							

d. SUFP-MP in Sucos Madabeno and Talitu

Topics / Techniques	Month of training	Summary of Activities																														
FFSs held in the Main Demonstration Plots and Sub-group Demonstration Plots	Apr. 2014 – Jun. 2015	<p>◆ Members of the beneficiaries' groups had engaged in another round of FFSs on sustainable upland farming in the main and sub-group demonstration plots as shown below.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="4">Follow-up FFS Sessions held in Suco Madabeno and Talitu</th> </tr> <tr> <th colspan="4">a. Main Demonstration Plots</th> </tr> <tr> <th>Topic</th> <th>Suco</th> <th>Date of Session</th> <th>No. of Participants</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Preparation of materials and piling</td> <td>Talitu</td> <td>1 session on Apr. 15, 2014</td> <td>8 members</td> </tr> <tr> <td>Madabeno</td> <td>4 sessions from Apr. 21 to May 23, 2014</td> <td>28 members in total</td> </tr> <tr> <td rowspan="2">Maintenance of compost</td> <td>Talitu</td> <td>1 session on Aug. 21, 2014</td> <td>5 members</td> </tr> <tr> <td>Madabeno</td> <td>4 sessions from Jul. 8 to Aug. 27, 2014</td> <td>24 members in total</td> </tr> <tr> <td>Plowing</td> <td>Talitu</td> <td>1 session on Aug. 12, 2014</td> <td>5 members</td> </tr> </tbody> </table>	Follow-up FFS Sessions held in Suco Madabeno and Talitu				a. Main Demonstration Plots				Topic	Suco	Date of Session	No. of Participants	Preparation of materials and piling	Talitu	1 session on Apr. 15, 2014	8 members	Madabeno	4 sessions from Apr. 21 to May 23, 2014	28 members in total	Maintenance of compost	Talitu	1 session on Aug. 21, 2014	5 members	Madabeno	4 sessions from Jul. 8 to Aug. 27, 2014	24 members in total	Plowing	Talitu	1 session on Aug. 12, 2014	5 members
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Topics / Techniques	Month of training	Summary of Activities					
		Application of Compost	Madabeno Talitu	4 sessions from Aug. 12 to Sep. 10, 2014 1 session on Sep. 4, 2014	27 members in total 5 members		
		Selection and sowing of seeds	Madabeno Talitu	4 sessions from Oct. 8 to Nov. 4, 2014 1 session on Nov. 6, 2014	25 members in total 5 members		
		Production of liquid fertilizer	Madabeno Talitu	4 sessions from Nov. 17 to Dec. 3, 2014 1 session on Apr. 10, 2014	27 members in total 7 members		
		Planting of fodder crops	Madabeno Talitu	4 sessions from May 26 to Nov. 11, 2014 1 session on Dec. 11, 2014	27 members in total 5 members		
		1 st Maintenance of farms	Madabeno Talitu	4 sessions from Feb. 5 to Mar. 5, 2015 1 session on Jan. 13, 2015	More than 20 members in total 5 members		
		Mulching using leaves of hedgerow	Madabeno Talitu	4 sessions from Dec. 10, 2014 to Jan. 17, 2015 1 session on Feb. 24, 2015	About 20 members in total 5 members		
		2 nd Maintenance of farms	Madabeno Talitu	4 sessions from Feb. 9 & 16, 2015 1 session on Jan. 7, 2015	21 members in total 5 members		
		3 rd Maintenance of farms	Madabeno Talitu	4 sessions on Dec. 15, 2014 – Jan. 27, 2015 1 session on Jan. 28, 2015	20 members in total 6 members		
					About 20 members in total		
		b. Sub-group Demonstration Plots					
		Topic	Suco	Date of Session	No. of Participants		
		Preparation of materials and piling	Talitu	4 sessions on Apr. 16, 22 & 24, 2014	32 members in total		
		Maintenance of compost	Madabeno	16 sessions from Apr. 8 to Jun. 13, 2014	85 members in total		
		Plowing	Talitu	4 sessions on Jul. 1 & 8, 2014	24 members in total		
		Application of Compost	Madabeno	16 sessions from Jul. 14 to Aug. 25, 2014	67 members in total		
		Selection and sowing of seeds	Talitu	4 sessions from Aug. 12 to Sep. 10, 2014	28 members in total		
		1 st Maintenance of farms	Madabeno	16 sessions from Aug. 11 to Oct. 07, 2014	About 70 members		
		Mulching using leaves of hedgerow	Talitu	4 sessions from Sep. 8 & Oct. 28, 2014	21 members in total		
		Planting of fodder crops	Madabeno	16 sessions from Sep. 22 to Nov. 04, 2014	71 members in total		
		2 nd Maintenance of farms	Talitu	4 sessions from Nov. 13 to Dec. 03, 2014	30 members in total		
		3 rd Maintenance of farms	Madabeno	16 sessions from Nov. 10 to Dec. 02, 2014	74 members in total		
		Harvesting	Talitu	4 sessions from Dec. 12 to 14, 2014	15 members in total		
		Post-harvesting	Madabeno	16 sessions from Dec. 9 to 18, 2014	More than 50 members in total		
			Talitu	4 sessions from Feb. 18 & 19, 2015	20 members in total		
			Madabeno	16 sessions from Feb. 9 to 25, 2015	71 members in total		
			Talitu	2 sessions from Feb. 19 & 20, 2015	12 members in total		
			Madabeno	16 sessions from Feb. 5 to Mar. 11, 2015	More than 50 members in total		
			Talitu	4 sessions from Jan. 13 to 29, 2015	18 members in total		
			Madabeno	16 sessions from Dec. 9, 2014 to Jan. 21, 2015	More than 60 members in total		
			Talitu	4 sessions from Feb. 10 & 12, 2015	24 members in total		
			Madabeno	16 sessions from Jan. 19 to Mar. 5, 2015	More than 50 members in total		
			Talitu	2 sessions from Apr. 9 & 10, 2015	38 members in total		
			Madabeno	14 sessions from Mar. 30 to Apr. 13, 2015	More than 70 members in total		
			Talitu	None	-		
			Madabeno	16 sessions from May 25 to Jun. 8, 2015	More than 70 members in total		
		<i>Source: Halarae Foundation(2015)</i>					
Application of Techniques to Individual Farms	Apr. 2014 – Jun. 2015	◆ The members of the beneficiaries groups also applied the techniques that they practiced through the FFSs to their own farms with technical assistance of the NGO. As of the end of March 2015, the majority of them have applied the key techniques to their own farms as shown below.					
		Level of Application of Key Techniques to Members' Plots					
		Suco	Group	No. of beneficiaries	Compost application	Application of liquid fertilizer	Planting of fodder trees in terraces
		Talitu	2 groups	51	40 / 52 (78%)	40 / 52 (78%)	26 / 52 (50%)
		Madabeno	8 groups	151	145 / 151 (96%)	93 / 151 (62%)	139 / 151 (92%)
		Total	10 groups	202	185 / 203 (91%)	133 / 203 (66%)	165 / 203 (81%)
		<i>Source: Halarae Foundation (2015)</i>					

Source: JICA Project Team (2015)

(9) Results of the Third (3rd) Year FFSs

The results of the 3rd year FFSs are summarized below.

Summary of Results of the 3rd Year FFSs and Technical Assistance

Micro Program	Suco	Results of the Activities																																																																																																																																						
SUFP with CBSE-MP	Faturasa Fadabloco	<ul style="list-style-type: none"> The beneficiaries' groups maintained and managed the exiting demonstration plots (10 main plots and 31 sub-group plots) through the 3rd year FFSs. Through the FFSs, the beneficiaries groups harvested maize, peanut, and beans planted in the main and sub-group demonstration plots. The following table shows the production of crops and volumes of seeds planted in the demonstration plots. <p style="text-align: center;">Harvest volume at the demonstration plots for SUFP with CBSE-MP (unit: kg)</p> <table border="1"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">No. of plots</th> <th colspan="2">Maize (Improved)</th> <th colspan="2">Peanuts (Improved)</th> <th colspan="2">Red Bean (Local)</th> </tr> <tr> <th>Sown Seed</th> <th>Harvest</th> <th>Sown Seed</th> <th>Harvest</th> <th>Sown Seed</th> <th>Harvest</th> </tr> </thead> <tbody> <tr> <td>Faturasa</td> <td>6 plots</td> <td>15</td> <td>435</td> <td>15</td> <td>162</td> <td>12</td> <td>33</td> </tr> <tr> <td>Fadabloco</td> <td>4 plots</td> <td>8</td> <td>979</td> <td>8</td> <td>169</td> <td>8</td> <td>69</td> </tr> <tr> <td>Total</td> <td>10 plots</td> <td>23</td> <td>1,414</td> <td>23</td> <td>331</td> <td>20</td> <td>102</td> </tr> </tbody> </table> <p>a. Main demonstration plots (unit: kg)</p> <table border="1"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">No. of plots</th> <th colspan="2">Maize (Improved)</th> <th colspan="2">Peanuts (Improved)</th> <th colspan="2">Red Bean (Local)</th> </tr> <tr> <th>Sown Seed</th> <th>Harvest</th> <th>Sown Seed</th> <th>Harvest</th> <th>Sown Seed</th> <th>Harvest</th> </tr> </thead> <tbody> <tr> <td>Faturasa</td> <td>15 plots</td> <td>33</td> <td>590</td> <td>0</td> <td>0</td> <td>15</td> <td>33</td> </tr> <tr> <td>Fadabloco</td> <td>16 plots</td> <td>32</td> <td>1,289</td> <td>0</td> <td>0</td> <td>26</td> <td>90</td> </tr> <tr> <td>Total</td> <td>31 plots</td> <td>55</td> <td>1,879</td> <td>0</td> <td>0</td> <td>41</td> <td>123</td> </tr> </tbody> </table> <p>b. Sub-group demonstration plots (unit: kg)</p> <table border="1"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">No. of plots</th> <th colspan="2">Maize (Improved)</th> <th colspan="2">Peanuts (Improved)</th> <th colspan="2">Red Bean (Local)</th> </tr> <tr> <th>Sown Seed</th> <th>Harvest</th> <th>Sown Seed</th> <th>Harvest</th> <th>Sown Seed</th> <th>Harvest</th> </tr> </thead> <tbody> <tr> <td>Faturasa</td> <td>6 plots</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Fadabloco</td> <td>4 plots</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total</td> <td>10 plots</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Source: RAEBI Timor-Leste (2015)</p> <ul style="list-style-type: none"> The performance of crops in Faturasa was not good as expected, but the yields of maize in both main and sub-group demonstration plots in Fadabloco were significantly higher than the national average. Like in the case of the 2nd year, the beneficiaries' groups saved substantial amount of seeds of improved varieties of maize and peanut for next cropping as shown below. <p style="text-align: center;">Volume of Seeds stored for Cropping in 2015/2016 (unit: kg)</p> <table border="1"> <thead> <tr> <th>Suco</th> <th>No. of plots</th> <th>Maize (Improved)</th> <th>Peanuts (Improved)</th> <th>Red Bean (Local)</th> </tr> </thead> <tbody> <tr> <td>Faturasa</td> <td>6 plots</td> <td>250</td> <td>149</td> <td>20</td> </tr> <tr> <td>Fadabloco</td> <td>4 plots</td> <td>454</td> <td>118</td> <td>41</td> </tr> <tr> <td>Total</td> <td>10 plots</td> <td>654</td> <td>267</td> <td>61</td> </tr> </tbody> </table> <p>Source: RAEBI Timor-Leste (2015)</p>	Suco	No. of plots	Maize (Improved)		Peanuts (Improved)		Red Bean (Local)		Sown Seed	Harvest	Sown Seed	Harvest	Sown Seed	Harvest	Faturasa	6 plots	15	435	15	162	12	33	Fadabloco	4 plots	8	979	8	169	8	69	Total	10 plots	23	1,414	23	331	20	102	Suco	No. of plots	Maize (Improved)		Peanuts (Improved)		Red Bean (Local)		Sown Seed	Harvest	Sown Seed	Harvest	Sown Seed	Harvest	Faturasa	15 plots	33	590	0	0	15	33	Fadabloco	16 plots	32	1,289	0	0	26	90	Total	31 plots	55	1,879	0	0	41	123	Suco	No. of plots	Maize (Improved)		Peanuts (Improved)		Red Bean (Local)		Sown Seed	Harvest	Sown Seed	Harvest	Sown Seed	Harvest	Faturasa	6 plots							Fadabloco	4 plots							Total	10 plots							Suco	No. of plots	Maize (Improved)	Peanuts (Improved)	Red Bean (Local)	Faturasa	6 plots	250	149	20	Fadabloco	4 plots	454	118	41	Total	10 plots	654	267	61
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IG/LD-MP	Fadabloco	<ul style="list-style-type: none"> The women groups that had engaged in cassava chips production had earned more than US\$ 3,000 from the sales of cassava chips as of the end of June 2015. In April 2015, the women groups started the micro credit for members who had actively participated in cassava chips production. A total of US\$ 940 were loaned to 19 members with 6 %/annum of interest. Members of the women groups have been able to earn cash income from the following livelihood activities although the amount of the earnings was not as high as that generated by the sales of cassava chips. <ul style="list-style-type: none"> - Production of herbal tea - Use of sewing machines 																																																																																																																																						
SPTPP-MP	Madabeno Talitu	<ul style="list-style-type: none"> Out of 14 nurseries developed in 2013, a total of 13 beneficiaries' groups had produced seedlings in their nurseries in 2014/2015, and the remaining one had been just maintained for tending the seedlings left in the nursery in 2014/2015. About 14,000 seedlings, namely 4,660 seedlings in Talitu and 9,370 seedlings in Madabeno, had been raised through FFSs in 2014/2015 as shown below. Out of 14,000 seedlings, 13,900 seedlings were planted by 273 members in both sucos by the end of February 2015. About 160 seedlings of Longan were left over in the nurseries in Suco Madabeno as they were still too small to plant in the field. <p style="text-align: center;">No. of Seedlings produced in the Nurseries and Planted by Members in 2014/2015 (Unit: Pcs.)</p> <table border="1"> <thead> <tr> <th>Species</th> <th>Talitu</th> <th>Madabeno</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td colspan="4">Seedlings transplanted in 2013</td> </tr> <tr> <td>Orange</td> <td>362/362</td> <td>574/574</td> <td>936/936</td> </tr> <tr> <td>Citrus</td> <td>0/0</td> <td>77/77</td> <td>77/77</td> </tr> <tr> <td>Sandalwood</td> <td>311/311</td> <td>1,307/1,307</td> <td>1,618/1,618</td> </tr> <tr> <td>Sub-total</td> <td>673/673</td> <td>1,958/1,958</td> <td>2,631/2,631</td> </tr> <tr> <td colspan="4">Seedlings transplanted in 2014</td> </tr> <tr> <td>Rambutan</td> <td>2,163/2,163</td> <td>2,388/2,388</td> <td>4,551/4,551</td> </tr> <tr> <td>Longan</td> <td>548/548</td> <td>395/581</td> <td>943/1,129</td> </tr> <tr> <td>Clove</td> <td>294/294</td> <td>1,978/1,978</td> <td>2,272/2,272</td> </tr> <tr> <td>Teak (local)</td> <td>266/266</td> <td>754/754</td> <td>1,020/1,020</td> </tr> <tr> <td>L19</td> <td>330/330</td> <td>1,091/1,091</td> <td>1,421/1,421</td> </tr> <tr> <td>Caliandra</td> <td>390/390</td> <td>616/616</td> <td>1,007/1,007</td> </tr> <tr> <td>Sub-total</td> <td>3,991/3,991</td> <td>7,186/7,408</td> <td>11,177/11,399</td> </tr> <tr> <td>Total</td> <td>4,664/4,664</td> <td>9,144/9,366</td> <td>13,808/14,030</td> </tr> </tbody> </table>	Species	Talitu	Madabeno	Total	Seedlings transplanted in 2013				Orange	362/362	574/574	936/936	Citrus	0/0	77/77	77/77	Sandalwood	311/311	1,307/1,307	1,618/1,618	Sub-total	673/673	1,958/1,958	2,631/2,631	Seedlings transplanted in 2014				Rambutan	2,163/2,163	2,388/2,388	4,551/4,551	Longan	548/548	395/581	943/1,129	Clove	294/294	1,978/1,978	2,272/2,272	Teak (local)	266/266	754/754	1,020/1,020	L19	330/330	1,091/1,091	1,421/1,421	Caliandra	390/390	616/616	1,007/1,007	Sub-total	3,991/3,991	7,186/7,408	11,177/11,399	Total	4,664/4,664	9,144/9,366	13,808/14,030																																																																										
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Sandalwood	311/311	1,307/1,307	1,618/1,618																																																																																																																																					
Sub-total	673/673	1,958/1,958	2,631/2,631																																																																																																																																					
Seedlings transplanted in 2014																																																																																																																																								
Rambutan	2,163/2,163	2,388/2,388	4,551/4,551																																																																																																																																					
Longan	548/548	395/581	943/1,129																																																																																																																																					
Clove	294/294	1,978/1,978	2,272/2,272																																																																																																																																					
Teak (local)	266/266	754/754	1,020/1,020																																																																																																																																					
L19	330/330	1,091/1,091	1,421/1,421																																																																																																																																					
Caliandra	390/390	616/616	1,007/1,007																																																																																																																																					
Sub-total	3,991/3,991	7,186/7,408	11,177/11,399																																																																																																																																					
Total	4,664/4,664	9,144/9,366	13,808/14,030																																																																																																																																					

Micro Program	Suco	Results of the Activities																																																																												
		<p><i>Note: The figures in left are the numbers of seedlings planted by members, while those in right are those produced in the nurseries.</i></p> <p><i>Source: Halarae Foundation (2015)</i></p>																																																																												
SUFP-MP	Madabeno Talitu	<p>◆ Members of the beneficiaries' groups managed and maintained five (5) main demonstration plots and 20 sub-group demonstration plots through the 3rd year FFSs in 2014/2015.</p> <p>◆ The yields of maize in both main and sub-group demonstration plots were rather lower than the national average. The following table shows the total volume of maize harvested in the main and sub-group demonstration plots.</p> <p style="text-align: center;">Harvest volume at the demonstration plots for SUFP-MP</p> <p>a. Main demonstration plots (unit: kg)</p> <table border="1"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">No. of plots</th> <th colspan="2">Maize (Improved)</th> <th colspan="2">Red beans (local)</th> <th colspan="2">Peanuts (Local)</th> </tr> <tr> <th>Volume of Seed</th> <th>Harvest</th> <th>Volume of Seed</th> <th>Harvest</th> <th>Volume of Seed</th> <th>Harvest</th> </tr> </thead> <tbody> <tr> <td>Talitu</td> <td>1 plot</td> <td>2.0</td> <td>50</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Madabeno</td> <td>4 plots</td> <td>4.5</td> <td>181</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Total</td> <td>5 plots</td> <td>6.5</td> <td>231</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table> <p>b. Sub-group demonstration plots (unit: kg)</p> <table border="1"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">No. of plots</th> <th colspan="2">Maize (Improved)</th> <th colspan="2">Red Bean (Local)</th> <th colspan="2">Soy beans (Local)</th> </tr> <tr> <th>Volume of Seed</th> <th>Harvest</th> <th>Volume of Seed</th> <th>Harvest</th> <th>Volume of Seed</th> <th>Harvest</th> </tr> </thead> <tbody> <tr> <td>Talitu</td> <td>4 plots</td> <td>6.0</td> <td>206</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Madabeno</td> <td>16 plots</td> <td>20.5</td> <td>960</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Total</td> <td>20 plots</td> <td>26.5</td> <td>1,166</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table> <p><i>Source: Halarae Foundation (2015)</i></p>	Suco	No. of plots	Maize (Improved)		Red beans (local)		Peanuts (Local)		Volume of Seed	Harvest	Volume of Seed	Harvest	Volume of Seed	Harvest	Talitu	1 plot	2.0	50	-	-	-	-	Madabeno	4 plots	4.5	181	-	-	-	-	Total	5 plots	6.5	231	-	-	-	-	Suco	No. of plots	Maize (Improved)		Red Bean (Local)		Soy beans (Local)		Volume of Seed	Harvest	Volume of Seed	Harvest	Volume of Seed	Harvest	Talitu	4 plots	6.0	206	-	-	-	-	Madabeno	16 plots	20.5	960	-	-	-	-	Total	20 plots	26.5	1,166	-	-	-	-
Suco	No. of plots	Maize (Improved)			Red beans (local)		Peanuts (Local)																																																																							
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Total	20 plots	26.5	1,166	-	-	-	-																																																																							

Source: JICA Project Team (2015)

(10) Final Evaluation of the Micro Programs

The NGOs arranged and held a one-day meeting each for the respective micro programs with the beneficiaries'/women groups on the following dates to help the members evaluate the results of the micro programs and develop work plans of the respective micro programs so that the beneficiaries' groups/members could continue similar activities even in the post-project periods.

Micro program	Suco	Date	No. of participants
SUFP with CBSE-MP	Faturasa	June 24, 2015	21 participants
	Fadabloco	June 25, 2015	38 participants
IG/LD-MP	Fadabloco	June 25, 2015	No datum was available.
SPTPP-MP	Madabeno	March 4, 2015	27 participants
	Talitu	March 6, 2015	21 participants
SUFP-MP	Madabeno	July 17, 2015	24 participants
	Talitu	June 3, 2015	21 participants

Source: RAEBIA Timor-Leste and Halarae Foundation (2015)

In the meetings, the NGOs helped members of the beneficiaries'/women groups:

- ◆ review the performance of the members and the results of the activities in 2014/2015;
- ◆ discuss any difficulties that they had faced during the operations and causes of such difficulties as well as possible solutions that they could have taken;
- ◆ evaluate the effectiveness and applicability of the techniques introduced by the micro programs; and
- ◆ discuss and develop an annual work plan of the micro program in case the beneficiaries'/women groups showed their willingness to continue the same activities in 2015/2016 on their own initiative.

The beneficiaries'/women groups of the micro programs, except those of SUFP-MP in Sucos Madabeno and Talitu, decided to continue the micro program activities even without support from the the NGOs. Hence, they prepared annual work plans of the micro programs in 2015/2016 with assistance of the NGOs.

3.5.2 Results of the Second (2nd) Batch Sucos

The micro programs in the second batch sucos had been implemented in the same manner as those implemented in the first batch sucos. The preparatory works started in January 2013, and the micro programs had been implemented for about two (2) years from April 2013 to August 2015.



(1) Preparatory Work

The NGOs arranged and held the following meetings with communities in Sucos Hautoho and Tohumeta to organize the beneficiaries' groups which would be the main bodies for implementation of the micro programs in each suco.

- Meetings to organize the beneficiaries' groups for implementation of the micro programs at the aldeia level
- Study tours to sucos where similar activities had been introduced/applied by communities
- Meetings to develop work plans (overall and annual work plans) for implementation of the micro programs

The results of the meetings and study tours were summarized below.

Summary of the Preparatory Works done in the 2nd Batch Sucos

Activities	Outline of the Activity	Results of the Activities
Organization of the beneficiaries' groups 	<ul style="list-style-type: none"> ◆ 1st meeting to explain the outline of the micro programs and the necessity of group formation for implementation of the micro programs ◆ 2nd meeting to select members of the beneficiaries' groups of the micro programs with introduction of criteria and eligibility for members ◆ 3rd meeting to determine visions and missions of the beneficiaries' groups and define roles and responsibilities of the respective members 	<ul style="list-style-type: none"> ◆ Three (3) beneficiaries' groups composed of 110 members were formed for SUFP with CBSE-MP in Hautoho. ◆ Three (3) women groups composed of 30 women were formed for IG/LD-MP in Hautoho ◆ Eight (8) beneficiaries' groups composed of 87 members were formed for SUB/PF-MP in Tohumeta ◆ Resolutions of the respective beneficiaries' groups were prepared by the beneficiaries' groups in the target sucos with assistance of the NGOs and JICA Project Team.
Exposure Visits/ Study Tours for the Beneficiaries' Groups 	<ul style="list-style-type: none"> ◆ Study tours for core members of the beneficiaries' groups to visit villages where similar activities had been already introduced and applied by communities ◆ Meeting between the members of the beneficiaries' groups and those in host villages ◆ Meeting with other members who did not attend the study tours for information sharing 	<ul style="list-style-type: none"> ◆ A total of 20 members of SUFP-MP/SUFP with CBSE-MP in Sucos Hautoho visited Suco Umakaduak, Manatutu District to observe the sloping agricultural land techniques. ◆ A total of 19 women of IG/LD-MP in Suco Hautoho visited Suco Fadabloco to have a meeting with the members of the same micro program in Fadabloco and observed the hands-on training in making a recycle bag. ◆ A total of 30 members of SUB/PF-MP in Sucos Tohumeta visited Suco Liurai, Aileu District to observe the integrated use of permanent farms in the village.
Preparation of work plans of the micro programs	<ul style="list-style-type: none"> ◆ Two-day workshops to develop overall and annual work plans of the micro programs in a participatory manner. 	<ul style="list-style-type: none"> ◆ Overall work plans of the respective micro programs were developed by members of the beneficiaries' groups.








Source: JICA Project Team (2015)

(2) First (1st) Year FFSs and Technical Assistance

The NGOs had arranged and conducted the following activities in the 1st year FFSs of the respective micro programs.






Summary of the 1st Year FFSs and Technical Assistance

a. SUFP with CBSE-MP in Suco Hautoho

Topics / Techniques	Month of training	Summary of Activities	
Compost making including maintenance of compost	Jun. – Aug. 2013	<ul style="list-style-type: none"> ◆ The NGO held a two (2) days training session on compost making each at the three (3) demonstration plots in Suco Hautoho. A total of 228 members attended the sessions and learned how to prepare and pile materials for making compost. ◆ In July and August 2013, the NGO further held two (2) sessions of hands-on training in maintaining compost at each demonstration plot with the participation of 200 members in total. The members who attended the sessions learned how to turn over and mix compost to facilitate the fermentation process of compost. 	
Delineation of contour lines and application of soil conservation measures	Jul. and Aug. 2013	<ul style="list-style-type: none"> ◆ The NGO held one (1) day training sessions on delineation of contour lines and two (2) to four (4) days sessions on application of soil conservation measures at each demonstration plot. A total of 342 members attended the sessions and practiced the techniques of i) making A-frames, ii) delineating contour lines by using A-frames, iii) making bench terraces, and iv) making contour composting terraces in the demonstration plots. 	
Cultivation with compost application	Aug. and Oct. 2013	<ul style="list-style-type: none"> ◆ The NGO held a one (1) day training session on cultivation in August and another one (1) day session on compost application in November at each demonstration plot. ◆ A total 67 members and 88 members attended the sessions, respectively, and practiced the techniques of plowing in a farm and applying compost in the demonstration plots. 	
Seed selection and sowing of seeds	Oct. and Nov. 2013	<ul style="list-style-type: none"> ◆ The NGO held a one (1) day training session on seed selection and another one (1) day session on sowing seeds at each demonstration plot in October and November 2013, respectively. ◆ A total of 222 members attended the sessions and learned to select quality seeds and planting materials and sow/plant seeds in evenly spaced rows in the demonstration plots. 	
Making of liquid fertilizer	Dec. 2013	<ul style="list-style-type: none"> ◆ The NGO held one-day training in making liquid fertilizer at each demonstration plot ◆ A total of 105 members attended the sessions and made liquid fertilizer using material locally available. 	
Farm maintenance	Dec. 2013	<ul style="list-style-type: none"> ◆ The NGO held a one (1) day hands-on training session on maintenance of a farm at each demonstration plot in December 2013. ◆ A total of 102 members attended the sessions and practiced the techniques of weeding, mulching, applying liquid fertilizer, and fixing terraces in the demonstration plots. 	
Planting of sweet potato	Dec. 2013	<ul style="list-style-type: none"> ◆ A total of 74 members practiced the technique of row planting of sweet potato in one (1) day training sessions held at the demonstration plots. 	
Application of green manure	Feb. 2014	<ul style="list-style-type: none"> ◆ The NGO held a one (1) day training session on application of green manure at each demonstration plot with the participation of a total of 96 members. ◆ The members who attended the sessions learned to plant "lehe (a legume plant to cover a farm)" as a cover crop as well as green manure. 	
Harvesting and post-harvesting of maize	Mar. and Apr. 2014	<ul style="list-style-type: none"> ◆ Two (2) days sessions were held at the demonstration plots to introduce the techniques of harvesting and post-harvesting of maize. A total of 192 members attended the sessions and learned the techniques especially of collection and sorting of seeds. 	









Topics / Techniques	Month of training	Summary of Activities
Fixing of terraces and maintenance of a farm	May 2014	<ul style="list-style-type: none"> ◆ The NGO held a one (1) day training session on maintenance of a farm at each demonstration plot with the participation of 75 members in total. ◆ The participants engaged in fixing of contour ditches and bunds as well as terraces in the demonstration plots.
OJT in applying the techniques of sustainable upland farming	May 2013 to Mar. 2014	<ul style="list-style-type: none"> ◆ Core members of the beneficiaries' groups had practiced some techniques in the demonstration plots on their own initiatives. In particular, they had engaged in weeding, mulching, and additional fertilization by using liquid fertilizer to maintain the growth of crops in the demonstration plots.


b. IG/LD-MP in Suco Hautoho

Topics / Techniques	Month of training	Results of the Activities
Resource assessment and identification of potential livelihoods	Mar. 2013	<ul style="list-style-type: none"> ◆ The women groups assess natural resources available in the suco and identified the following livelihood activities as potential livelihood activities. <ol style="list-style-type: none"> Salted vegetable production Dried sweet potato production Herbal tea production Cassava chips production Use of sewing machines
Salted vegetable production	Jun. and Aug. 2013	<ul style="list-style-type: none"> ◆ The NGO held a one (1) day training session on production of salted vegetables (pickling of vegetables) with the participation of 20 members from three (3) women groups. ◆ A total of 13 members from the groups checked the quality of salted/pickled vegetables with technical assistance of the NGO two (2) week after the training session. ◆ In August 2013, when the two months fermentation process ended, the NGO held the last session on quality check and packing of final products with the participation of 15 members of the groups. 
Production of dried sweet potato	Jul. 2013	<ul style="list-style-type: none"> ◆ A one (1) day session on production of dried sweet potato was had by the NGO with the participation of 19 members. The members learned how to process sweet potato, namely techniques of peeling, steaming, slicing, and drying sweet potato in the course of the session. ◆ The NGO held another session one (1) week after the training session to check and evaluate the quality of dried sweet potato. Members who attended the session were able to learn the importance of the drying process as they observed that almost all the products they produced got molded due to insufficient drying. 
Production of herbal tea	Sep. 2013	<ul style="list-style-type: none"> ◆ The NGO arranged and held a one (1) day training session on production of herbal tea with the participation of 23 members of the groups. ◆ Another session was held to check the quality of herbal tea with members of the groups. Members who attended the session were reminded that they should follow the standards set by PARCIC to market herbal tea. 
Cassava chips production	Nov. 2013	<ul style="list-style-type: none"> ◆ The NGO held a one (1) day training session on cassava chips production with the participation of nine (9) members of the groups. They learned and practiced the techniques of making cassava chips. 
Use of sewing machine	Jan. 2014	<ul style="list-style-type: none"> ◆ The NGO held a four (4) days training session on use of a sewing machine for three (3) groups. A total of 93 members attended the sessions and learned how to use a sewing machine to mend and make clothes. ◆ In February and March 2014, members had used sewing machines on their own initiative to practice sewing techniques. 

c. SUB/PF-MP in Suco Tohumeta

Topics / Techniques	Month of training	Results of the Activities
Compost making and maintenance	Apr., May and Jul. 2013	<ul style="list-style-type: none"> ◆ The NGO held a two (2) to three (3) days session on compost making at each demonstration plot in April and May 2013, while another one (1) day session on turning over/mixing compost was held at each plot in July 2013. A total of 293

Topics / Techniques	Month of training	Results of the Activities	
of compost		members attended the sessions and learned/practiced the techniques of digging a compost pit, preparing and piling materials, and mixing composted materials.	
Delineation of contour lines and application of contour composting technique	Jun. and Sep. 2013	<ul style="list-style-type: none"> ◆ In June 2013, a total of 186 members learned and practiced the techniques of making an A-frame and delineating contour lines by using an A-frame through two (2) to three (3) days training courses held at demonstration plots. ◆ The NGO also held a one (1) day training session on application of contour composting technique at each demonstration plot with the participation of 84 members in total in September 2013. ◆ The members who attended the sessions learned how to develop contour composting terraces at the demonstration plots. 	
Plowing and application of compost	Sep. and Oct. 2013	<ul style="list-style-type: none"> ◆ The NGO held a one (1) day training session on plowing and application of compost at each demonstration plot. All the members (85 members) attended the sessions and learned/practiced both techniques. 	
Application of compost basket	Sep. and Oct. 2013	<ul style="list-style-type: none"> ◆ All the members also learned how to apply compost basket through a one (1) day training session held at each demonstration plot. 	
Selection and sowing of maize and beans	Sep. and Oct. 2013	<ul style="list-style-type: none"> ◆ The NGO held a one (1) day training session on seed selection and line planting of maize and beans at each demonstration plot. ◆ A total of 79 members attended the sessions and learned how to select quality seeds and plant maize mixed with beans in evenly spaced rows (maize: 1 m x 0.5 m and beans: 1 m x 0.3-0.4 m) in the demonstration plots. 	
Pitting and refilling of pits with compost	Nov. 2013	<ul style="list-style-type: none"> ◆ The NGO also trained 84 members to dig pits and refill the same with compost for planting seedlings in the demonstration plots. A one (1) day session was held at each demonstration plot for this purpose. 	
Making of liquid fertilizer	Nov. 2013	<ul style="list-style-type: none"> ◆ The NGO held one (1) day training sessions at each demonstration plot and trained a total of 81 members on how to make liquid fertilizer using material locally available. 	
Planting of sweet potato, cassava and mung beans	Dec. 2013 and Jan. 2014	<ul style="list-style-type: none"> ◆ A total of 165 members of the beneficiaries' groups learned and practiced the techniques of planting cassava/sweet potato and mung beans in evenly spaced rows in one (1) to two (2) day/s sessions held in the demonstration plots. 	
Farm maintenance	Dec. 2013	<ul style="list-style-type: none"> ◆ A one (1) day training session on farm maintenance was held by the NGO at each demonstration plot. A total of 64 members learned and practiced the techniques of weeding, applying liquid fertilizer, mulching, and fixing terraces/contour ditches in the demonstration plots. 	
Building of an animal pen	Nov. 2013 to Feb. 2014	<ul style="list-style-type: none"> ◆ A total of 170 members of the beneficiaries' groups attended a few days session on animal pen building at each demonstration plot and learned how to build a pen for goat/cow using materials locally available and use animal manure collected from a pen for farming. In total, the NGO held 23 sessions in the suco. 	
Harvesting and post-	Apr. and May 2014	<ul style="list-style-type: none"> ◆ The NGO held a one (1) day training session each on harvesting and post-harvesting at each demonstration plot. 	

Topics / Techniques	Month of training	Results of the Activities
harvesting		<ul style="list-style-type: none"> A total of 122 members attended the sessions and learned how to i) select maize for seed selection, ii) dry maize cobs, iii) collect maize grains for seeds, and iv) store seeds by using an airtight container. 
Maintenance of terraces	Apr. and May 2014	<ul style="list-style-type: none"> The NGO held a one (1) or two (2) days training session each at the demonstration plots and train 97 members to fix and improve contour bunds and ditches of contour compost terraces in the demonstration plots.
Application of techniques to the individual farms	Apr. 2013 to Mar. 2014	<ul style="list-style-type: none"> Despite the fact that the “two-step training approach” had not been introduced in Suco Tohumeta in the 1st year, the members of the beneficiaries’ groups had helped each other apply the techniques that they learned in the demonstration plots to their own farms. As of the end of February 2014, all the members (85 members) had applied the key techniques on sustainable upland farming, such as compost making, contour compost application, plowing with compost application, planting of fruit trees, and application of liquid fertilizer, to their own farms.

Source: JICA Project Team (2015)

(3) Results of the First (1st) Year FFSs

The results of the 1st year FFSs are summarized below

Summary of Results of the 1st Year FFSs and Technical Assistance

Micro Program	Suco	Results of the Activities																																
SUFP with CBSE-MP	Haautoho	<ul style="list-style-type: none"> A total of three (3) demonstration plots were developed in Suco Haautoho. The beneficiaries’ groups had harvested maize (improved), peanut (improved), and peanut (local) in the demonstration plots through a series of FFSs. The following table shows the production of those crops planted in the demonstration plots. <p style="text-align: center;">Harvest volume at the demonstration plots for SUFP with CBSE-MP (unit: kg)</p> <table border="1"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">No. of plots</th> <th colspan="2">Maize (Improved)</th> <th colspan="2">Peanuts (Improved)</th> <th colspan="2">Peanuts (Local)</th> </tr> <tr> <th>Volume of Seed</th> <th>Production <1</th> <th>Volume of Seed</th> <th>Production <1</th> <th>Volume of Seed</th> <th>Production <1</th> </tr> </thead> <tbody> <tr> <td>Haautoho</td> <td>3 plots</td> <td>6.7</td> <td>526.5</td> <td>5.5</td> <td>104.0</td> <td>3.0</td> <td>66.0</td> </tr> </tbody> </table> <p>Source: USC-CTL (2014)</p> <ul style="list-style-type: none"> The average ratio of output (production) of maize to input (seeds) was higher than the national average (50:1) but rather lower than the potential yield (100~150:1). One of the demonstration plots showed low performance due to low soil fertility along with the limited application of compost, while another plot suggested that it might be possible to achieve about 3 ton per hectare as long as soil and climate conditions are favorable. Furthermore, the NGO assisted the beneficiaries groups in the collection and storage of seeds for cropping in 2014 as a result of the training course on post-harvesting. About 50 % of maize grains harvested were saved as seeds for cropping in 2014 as shown below. <p style="text-align: center;">Volume of Seeds stored for Cropping in 2013/2014 (unit: kg)</p> <table border="1"> <thead> <tr> <th>Suco</th> <th>No. of plots</th> <th>Maize (Improved)</th> <th>Peanuts (Improved)</th> <th>Peanuts (Local)</th> </tr> </thead> <tbody> <tr> <td>Haautoho</td> <td>3 plots</td> <td>258.5</td> <td>79.0</td> <td>17.0</td> </tr> </tbody> </table> <p>Source: USC-CTL (2014)</p>	Suco	No. of plots	Maize (Improved)		Peanuts (Improved)		Peanuts (Local)		Volume of Seed	Production <1	Volume of Seed	Production <1	Volume of Seed	Production <1	Haautoho	3 plots	6.7	526.5	5.5	104.0	3.0	66.0	Suco	No. of plots	Maize (Improved)	Peanuts (Improved)	Peanuts (Local)	Haautoho	3 plots	258.5	79.0	17.0
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IG/LD-MP	Haautoho	<ul style="list-style-type: none"> Although the women groups had continued practicing the techniques of using a sewing machine and making dried sweet potato on their own initiative, the groups had not been able to earn cash income from the activities in 2013/2014. 																																
SUB/PF-MP	Tohumeta	<ul style="list-style-type: none"> A total of eight (8) demonstration plots were developed in Suco Tohumeta. The beneficiaries’ groups had harvested maize (improved) and peanut (improved and local) through a series of FFSs and harvested them in the demonstration plots as shown below. <p style="text-align: center;">Harvest volume at the demonstration plots for SUB/PF-MP (unit: kg)</p> <table border="1"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">No. of plots</th> <th colspan="2">Maize (Improved)</th> <th colspan="2">Peanuts (Improved)</th> <th colspan="2">Peanuts (Local)</th> </tr> <tr> <th>Volume of Seed</th> <th>Production</th> <th>Volume of Seed</th> <th>Production</th> <th>Volume of Seed</th> <th>Production</th> </tr> </thead> <tbody> <tr> <td>Haautoho</td> <td>3 plots</td> <td>8.0</td> <td>1,010.0</td> <td>8.0</td> <td>19.0</td> <td>8.0</td> <td>8.0</td> </tr> </tbody> </table> <p>Source: Halarae Foundation (2014)</p>	Suco	No. of plots	Maize (Improved)		Peanuts (Improved)		Peanuts (Local)		Volume of Seed	Production	Volume of Seed	Production	Volume of Seed	Production	Haautoho	3 plots	8.0	1,010.0	8.0	19.0	8.0	8.0										
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Micro Program	Suco	Results of the Activities
		<ul style="list-style-type: none"> ◆ The average yield of maize was far higher than the national average. The results suggested that the techniques introduced could drastically improve the productivity of maize in the suco. ◆ Out of harvested maize, a total of 85 kg of maize or 10 to 15 kg of maize per group was saved and stored as seeds for cropping in 2014/2015. The amount of seeds stored by the groups was rather lower (about 8 % of the total harvests) than those saved in the other target villages, since the individual members of the groups were also able to produce sufficient amount of maize in their own farms.

Source: JICA Project Team (2015)

(4) Participatory Monitoring and Evaluation of the Micro Programs

In February/March 2014, the beneficiaries' groups and women groups of the micro programs in Sucos Hautoho and Tohumeta had a two-day meeting each for the micro programs to evaluate the results of the 1st year FFSs and develop an annual work plan of each micro program for the 2nd year.

It was agreed by the beneficiaries' groups and the NGOs in the meetings that:

- i) the two-step extension approach would be introduced in the 2nd year curriculum of SUFP with CBSE-MP to disseminate the key techniques as many members of the groups as possible;
- ii) priority would be given to marketing of products produced by the women groups of IG/LD-MP in Suco Hautoho so that they could be motivated to continue the activities; and
- iii) planting of fruit seedlings would be incorporated in the 2nd year curriculum of SUB/PF-MP since members of the beneficiaries' groups intended to introduce fruit trees in their farms to use them in an integrated manner.

(5) Second (2nd) Year FFSs and Technical Assistance

The 2nd year FFSs and other technical assistance activities carried out in the 2nd batch village are summarized below.

Summary of the 2nd Year FFSs and Technical Assistance


a. SUFP with CBSE-MP in Suco Hautoho

Topics / Techniques	Month of training	Summary of Activities																																				
Reorganization of members of the beneficiaries' groups	Apr. 2014	<ul style="list-style-type: none"> ◆ Prior to the 2nd year's FFS curriculum, the NGO assisted the beneficiaries groups in re-organizing members of the respective beneficiaries groups into sub-groups according to the locations of the houses/farms of the members. The following table shows the sub-groups reorganized by the respective groups. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="3">Reorganization of the Beneficiaries' Groups</th> </tr> <tr> <th>No. of groups</th> <th>No. of Sub-groups</th> <th>Average No. of members</th> </tr> </thead> <tbody> <tr> <td>3 groups</td> <td>10 sub-groups</td> <td>8-13 members/sub-group Total: 110 members</td> </tr> </tbody> </table> <p style="text-align: center; font-size: small;">Source: RAEBIA Timor-Leste (2014)</p>	Reorganization of the Beneficiaries' Groups			No. of groups	No. of Sub-groups	Average No. of members	3 groups	10 sub-groups	8-13 members/sub-group Total: 110 members																											
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FFSs in the Main Demonstration Plots	May 2014 – May 2015	<ul style="list-style-type: none"> ◆ The NGO held the following hands-on training sessions in the main demonstration plots in Suco Hautoho. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="4">FFSs at the Main Demonstration Plots</th> </tr> <tr> <th>Topic</th> <th>Groups</th> <th>Date of training</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td>Compot making</td> <td>3 groups</td> <td>6 sessions from May 08 to 29, 2014</td> <td>172 members in total</td> </tr> <tr> <td>Maintenance of compost</td> <td>3 groups</td> <td>6 sessions from Jun. 03 to Aug. 21, 2014</td> <td>191 members in total</td> </tr> <tr> <td>Building of an anima pen</td> <td>3 groups</td> <td>3 sessions from Sep. 5 to 23, 2014</td> <td>97 members in total</td> </tr> <tr> <td>Plowing and application of compost</td> <td>3 groups</td> <td>6 sessions from Sep. 22 to Oct. 17, 2014</td> <td>215 members in total</td> </tr> <tr> <td>Selection and sowing of seeds</td> <td>3 groups</td> <td>6 sessions on Nov. 24, 25, & 26, 2014</td> <td>185 members in total</td> </tr> <tr> <td>Making of liquid fertilizer</td> <td>3 groups</td> <td>6 sessions on Dec. 4 & 5, 2014</td> <td>92 members in total</td> </tr> <tr> <td>Farm maintenance (1st time)</td> <td>3 groups</td> <td>6 sessions on Dec. 17, 18, & 19, 2014</td> <td>209 members in total</td> </tr> </tbody> </table>	FFSs at the Main Demonstration Plots				Topic	Groups	Date of training	No. of participants	Compot making	3 groups	6 sessions from May 08 to 29, 2014	172 members in total	Maintenance of compost	3 groups	6 sessions from Jun. 03 to Aug. 21, 2014	191 members in total	Building of an anima pen	3 groups	3 sessions from Sep. 5 to 23, 2014	97 members in total	Plowing and application of compost	3 groups	6 sessions from Sep. 22 to Oct. 17, 2014	215 members in total	Selection and sowing of seeds	3 groups	6 sessions on Nov. 24, 25, & 26, 2014	185 members in total	Making of liquid fertilizer	3 groups	6 sessions on Dec. 4 & 5, 2014	92 members in total	Farm maintenance (1 st time)	3 groups	6 sessions on Dec. 17, 18, & 19, 2014	209 members in total
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FFSs in the Sub-group Demonstration Plots	May 2014 – May 2015	<ul style="list-style-type: none"> ◆ Simultaneously with hands-on training at the main demonstration plots, the NGO held hands-on training on key techniques of sustainable upland farming at the sub-group demonstration plots. <p style="text-align: center;">Training Sessions held in the Demonstration Plots</p> <table border="1"> <thead> <tr> <th>Topic <1 & 2</th> <th>Sub-groups</th> <th>Date of training</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td>Compost making</td> <td>11 groups</td> <td>22 sessions from May 22 to Jun. 13, 2014</td> <td>204 members in total</td> </tr> <tr> <td>Maintenance of compost</td> <td>11 groups</td> <td>22 sessions from Jul. 8 to Aug. 22, 2014</td> <td>168 members in total</td> </tr> <tr> <td>Delineation of contour lines</td> <td>11 groups</td> <td>22 sessions from Jul. 3 to 11, 2014</td> <td>106 members in total</td> </tr> <tr> <td>Application of contour compost</td> <td>11 groups</td> <td>22 sessions from Aug. 5 to 22, 2014</td> <td>89 members in total</td> </tr> <tr> <td>Plowing and application of compost</td> <td>11 groups</td> <td>25 sessions from Sep. 3 to Oct 25, 2014</td> <td>189 members in total</td> </tr> <tr> <td>Farm maintenance (1st)</td> <td>11 groups</td> <td>11 sessions from Dec. 27, 2014 to Jan. 30, 2015</td> <td>103 members in total</td> </tr> <tr> <td>Planting of cassava and sweet potato</td> <td>11 groups</td> <td>11 sessions from Jan. 7 to 28, 2015</td> <td>84 members in total</td> </tr> <tr> <td>Fixing of terraces</td> <td>11 groups</td> <td>11 sessions from Feb 10 to Mar. 6, 2015</td> <td>63 members in total</td> </tr> <tr> <td>Harvesting of red bean and planting of green manure</td> <td>11 groups</td> <td>11 sessions from Feb 19 to Mar. 4, 2015</td> <td>91 members in total</td> </tr> <tr> <td>Farm maintenance (2nd)</td> <td>11 groups</td> <td>11 sessions from Feb 3 to 13, 2015</td> <td>74 members in total</td> </tr> <tr> <td>Planting of fruit seedling</td> <td>11 groups</td> <td>11 sessions from Feb 11 to 20, 2015</td> <td>80 members in total</td> </tr> <tr> <td>Harvesting and postharvesting</td> <td>11 groups</td> <td>11 sessions from Apr. 14 to 17, 2015</td> <td>78 members in total</td> </tr> </tbody> </table> <p>Note: <1 The topic of "Delineation of contour lines" is composed of two agenda: i) making of A-frames and ii) delineation of contour lines using A-frames. <2 The training courses were arranged according to the request from the members.</p> <p>Source: RAEBIA Timor-Leste (2015)</p> <ul style="list-style-type: none"> ◆ After the training sessions at the sub-group demonstration plots, the members had helped each other apply the same techniques that they practiced in the FFSs to their own farms with technical assistance from the NGO. As a result, all the 110 members applied the following key techniques to their own farms. <ul style="list-style-type: none"> - Compost production and application - Contour composting terraces - Liquid fertilizer application (1st and 2nd maintenance) 	Topic <1 & 2	Sub-groups	Date of training	No. of participants	Compost making	11 groups	22 sessions from May 22 to Jun. 13, 2014	204 members in total	Maintenance of compost	11 groups	22 sessions from Jul. 8 to Aug. 22, 2014	168 members in total	Delineation of contour lines	11 groups	22 sessions from Jul. 3 to 11, 2014	106 members in total	Application of contour compost	11 groups	22 sessions from Aug. 5 to 22, 2014	89 members in total	Plowing and application of compost	11 groups	25 sessions from Sep. 3 to Oct 25, 2014	189 members in total	Farm maintenance (1 st)	11 groups	11 sessions from Dec. 27, 2014 to Jan. 30, 2015	103 members in total	Planting of cassava and sweet potato	11 groups	11 sessions from Jan. 7 to 28, 2015	84 members in total	Fixing of terraces	11 groups	11 sessions from Feb 10 to Mar. 6, 2015	63 members in total	Harvesting of red bean and planting of green manure	11 groups	11 sessions from Feb 19 to Mar. 4, 2015	91 members in total	Farm maintenance (2 nd)	11 groups	11 sessions from Feb 3 to 13, 2015	74 members in total	Planting of fruit seedling	11 groups	11 sessions from Feb 11 to 20, 2015	80 members in total	Harvesting and postharvesting	11 groups	11 sessions from Apr. 14 to 17, 2015	78 members in total
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b. IG/LD-MP in Suco Hautoho

Topics / Techniques	Month of training	Summary of Activities																
Hands-on training	May–Nov. 2014	<ul style="list-style-type: none"> ◆ The focus of the 2nd year curriculum was put on improvement of skills and techniques of members of the women groups, so that they could produce products/commodities marketable in Dili. ◆ The following hands-on training sessions had been arranged and held by the NGO in the 2nd year. <p style="text-align: center;">Hands-on Training Sessions held in the 2nd Year Curriculum</p> <table border="1"> <thead> <tr> <th>Topics</th> <th>No. of Sessions</th> <th>Date of Session</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td>Salted vegetables</td> <td>2 sessions</td> <td>May 30 & Aug. 5, 2014</td> <td>More than 20 members in total</td> </tr> <tr> <td>Kontas chips making</td> <td>1 session</td> <td>Jun. 24, 2014</td> <td>10 members</td> </tr> <tr> <td>Use of sewing machines</td> <td>2 times of 4 sessions</td> <td>Jun. 25-28 & Nov. 18-21, 2014</td> <td>128 members in total</td> </tr> </tbody> </table> <p>Source: RAEBIA Timor-Leste (2015)</p>	Topics	No. of Sessions	Date of Session	No. of participants	Salted vegetables	2 sessions	May 30 & Aug. 5, 2014	More than 20 members in total	Kontas chips making	1 session	Jun. 24, 2014	10 members	Use of sewing machines	2 times of 4 sessions	Jun. 25-28 & Nov. 18-21, 2014	128 members in total
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Topics / Techniques	Month of training	Summary of Activities
		<ul style="list-style-type: none"> ◆ As a result of the training courses on salted vegetables, the women groups produced a total of 14 packs of salted vegetables using about 11 kg of mustards and 5 kg of chayote. ◆ Through the training session on kontas chips making, the women group learned to produce marketable chips using kontas (a kind of tubers which have been used as an emergency food during the food shortage period). ◆ In the first four (4) sessions on the use of sewing machines, the group members learned to operate and maintain sewing machines, while they made clothes by using sewing machines in the second four (4) sessions. 
On-the-Job Training	May 2014 – Mar. 2015	<ul style="list-style-type: none"> ◆ The women groups had continued practicing the production of kontas chips to improve the flavor and quality of chips from July to November 2014. They had a total of nine (9) OJT sessions and ended in producing two (2) types of flavored kontas chips, ginger flavor and clove flavor. In October 2014, the women groups started delivering kontas chips to major supermarkets on a consignment agreement and had been able to deliver 32 packages to two (2) shops. However, they suspended the production of kontas chips in January due to a shortage of raw material. ◆ They also had practiced sewing machines after the hands-on training sessions. In fact, the groups have earned petty cash income from mending clothes by using sewing machines. ◆ Like in Suco Fadabloco, the members of the groups had also continued the production of herbal tea made of daleta leaves to fulfill the request from PARCIC. As of the end of March 2015, the members have produced about 1 kg of herbal tea and delivered the same to PARCIC via the NGO.
Participation in the Exhibition of Local Agricultural Products	Feb. 2015	<ul style="list-style-type: none"> ◆ The women groups of IG/LD-MP in Sucos Fadabloco and Hautoho were invited by PARCIC to the exhibition of local agricultural commodities held in Dili on February 20 and 21, 2015. One of the leaders of the women's groups took part in the exhibition together with the leader from Suco Fadabloco and made a presentation of the products in the exhibition
Discussion on benefit sharing	Mar. 2015	<ul style="list-style-type: none"> ◆ As the women groups in Suco Hautoho had already started earning cash income from the production of canna (kontas) chips and use of sewing machines, the NGO and the JICA Project Team had a meeting with 11 members of the groups to discuss how they would use and manage the earnings. In the meeting, the members studied the rules and systems developed by the groups in Suco Fadabloco and agreed to adopt the same rules/systems for operations of their earnings.

c. SUB/PF-MP in Suco Tohumeta

Topics / Techniques	Month of training	Summary of Activities																																																												
FFSs in the Demonstration Plots	May 2014 – May 2015	<ul style="list-style-type: none"> ◆ The NGO held the following hands-on training sessions in the demonstration plots in Suco Tohumeta. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Topic</th> <th>Groups</th> <th>Date of training</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td>Making of seedling beds</td> <td>8 groups</td> <td>8 sessions from Mar. 5 to 12, 2014</td> <td>111 members in total</td> </tr> <tr> <td>Sowing of seeds</td> <td>8 groups</td> <td>16 sessions from Mar. 18 to Apr. 3, 2014</td> <td>75 members in total</td> </tr> <tr> <td>Compost making</td> <td>8 groups</td> <td>16 sessions from Mar. 25 to Apr. 9, 2014</td> <td>145 members in total</td> </tr> <tr> <td>Maintenance of compost</td> <td>8 groups</td> <td>8 sessions on Jul. 14, 15 & 16, 2014</td> <td>42 members in total</td> </tr> <tr> <td>Delineation of contour lines and application of contour compost</td> <td>8 groups</td> <td>8 sessions from Jul. 22 to Aug. 27, 2014</td> <td>65 members in total</td> </tr> <tr> <td>Plowing and application of compost</td> <td>8 groups</td> <td>16 sessions from Sep. 2 and 24, 2014</td> <td>124 members in total</td> </tr> <tr> <td>Selection and sowing of seeds</td> <td>8 groups</td> <td>8 sessions from Oct. 28 to Nov. 7, 2014</td> <td>63 members in total</td> </tr> <tr> <td>Preparation of liquid fertilizer</td> <td>8 groups</td> <td>8 sessions from Nov. 10 to 19, 2014</td> <td>57 members in total</td> </tr> <tr> <td>Farm maintenance (1st)</td> <td>8 groups</td> <td>11 sessions from Dec. 2 to 12, 2014</td> <td>46 members in total</td> </tr> <tr> <td>Farm maintenance (2nd)</td> <td>8 groups</td> <td>8 sessions from Jan. 6 to 15, 2015</td> <td>57 members in total</td> </tr> <tr> <td>Trimming and application of mulches</td> <td>8 groups</td> <td>8 sessions from Jan. 26 and 30, 2015</td> <td>58 members in total</td> </tr> <tr> <td>planting of fodder crops/trees</td> <td>8 groups</td> <td>8 sessions from Feb. 3 to 13, 2015</td> <td>41 members in total</td> </tr> <tr> <td>Harvesting</td> <td>8 groups</td> <td>8 sessions from Mar. 26 to Apr. 8, 2015</td> <td>45 members in total</td> </tr> <tr> <td>Post-harvesting</td> <td>8 groups</td> <td>10 sessions from May 4 to 22, 2015</td> <td>61 members in total</td> </tr> </tbody> </table>	Topic	Groups	Date of training	No. of participants	Making of seedling beds	8 groups	8 sessions from Mar. 5 to 12, 2014	111 members in total	Sowing of seeds	8 groups	16 sessions from Mar. 18 to Apr. 3, 2014	75 members in total	Compost making	8 groups	16 sessions from Mar. 25 to Apr. 9, 2014	145 members in total	Maintenance of compost	8 groups	8 sessions on Jul. 14, 15 & 16, 2014	42 members in total	Delineation of contour lines and application of contour compost	8 groups	8 sessions from Jul. 22 to Aug. 27, 2014	65 members in total	Plowing and application of compost	8 groups	16 sessions from Sep. 2 and 24, 2014	124 members in total	Selection and sowing of seeds	8 groups	8 sessions from Oct. 28 to Nov. 7, 2014	63 members in total	Preparation of liquid fertilizer	8 groups	8 sessions from Nov. 10 to 19, 2014	57 members in total	Farm maintenance (1 st)	8 groups	11 sessions from Dec. 2 to 12, 2014	46 members in total	Farm maintenance (2 nd)	8 groups	8 sessions from Jan. 6 to 15, 2015	57 members in total	Trimming and application of mulches	8 groups	8 sessions from Jan. 26 and 30, 2015	58 members in total	planting of fodder crops/trees	8 groups	8 sessions from Feb. 3 to 13, 2015	41 members in total	Harvesting	8 groups	8 sessions from Mar. 26 to Apr. 8, 2015	45 members in total	Post-harvesting	8 groups	10 sessions from May 4 to 22, 2015	61 members in total
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Topics / Techniques	Month of training	Summary of Activities													
Application of techniques	May 2014 – May 2015	<p><i>Source: Halarae(2015)</i></p> <ul style="list-style-type: none"> ◆ After hands-on training sessions in the demonstration plots, members of the beneficiaries' groups had helped each other apply the techniques that they practiced in the demonstration plots to their own farms following the customary collective working system named "harosan." All the 85 members had applied the following techniques as of the end of Mar. 2015. <ul style="list-style-type: none"> ✓ Production of compost (collection of materials, piling of materials, and turn-over of materials) ✓ Application of contour composting terraces (expansion of the areas with contour composting terraces) ✓ Application of compost ✓ Preparation of liquid fertilizer ✓ Application of liquid fertilizer ✓ Mulching as green manure ✓ Planting of fodder trees in terraces ◆ Furthermore, 22 members of the groups had also built animal pens at their own farms with technical assistance of the NGO in 2014/2015. 													
Production of seedlings	May 2014– Feb. 2015	<ul style="list-style-type: none"> ◆ After hands-on training in transplanting sprouts of seedlings into poly bags in the nursery, all the members received their quota and had maintained their seedlings at their backyards. ◆ A monitoring survey made by the NGO revealed that about 50% of seedlings grown by members died before planting. <table border="1"> <thead> <tr> <th rowspan="2">No. of group</th> <th rowspan="2">No. of members</th> <th colspan="3">Rambutan+Longan+Sandalwood</th> </tr> <tr> <th>Ditributed</th> <th>Dead</th> <th>Planted</th> </tr> </thead> <tbody> <tr> <td>8 groups</td> <td>85 members</td> <td>3,383</td> <td>1,700</td> <td>1,656</td> </tr> </tbody> </table> <p><i>Source: Halarae Foundation (2015)</i></p>	No. of group	No. of members	Rambutan+Longan+Sandalwood			Ditributed	Dead	Planted	8 groups	85 members	3,383	1,700	1,656
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		Ditributed	Dead	Planted											
8 groups	85 members	3,383	1,700	1,656											

Source: JICA Project Team (2015)

(6) Results of the Second (2nd) Year FFSs

The results of the 2nd year FFSs are summarized below.

Summary of Results of the 2nd Year FFSs and Technical Assistance

Micro Program	Suco	Results of the Activities																																																				
SUFP with CBSE-MP	Hautoho	<ul style="list-style-type: none"> ◆ The beneficiaries' groups had grown maize (improved), peanut (improved), and red beans (local) in the demonstration plots through a series of FFSs. The following table shows the production of those crops planted in the demonstration plots. <p style="text-align: center;">Harvest volume at the demonstration plots for SUFP with CBSE-MP (unit: kg)</p> <p>a. Main demonstration plot</p> <table border="1"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">No. of plots</th> <th colspan="2">Maize (Improved)</th> <th colspan="2">Peanuts (Improved)</th> <th colspan="2">Redbean (Local)</th> </tr> <tr> <th>Volume of Seed</th> <th>Production <1</th> <th>Volume of Seed</th> <th>Production <1</th> <th>Volume of Seed</th> <th>Production <1</th> </tr> </thead> <tbody> <tr> <td>Hautoho</td> <td>3 plots</td> <td>6.0</td> <td>500.0</td> <td>6.0</td> <td>132.0</td> <td>6.0</td> <td>58.0</td> </tr> </tbody> </table> <p>b. Sub-group demonstration plot</p> <table border="1"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">No. of plots</th> <th colspan="2">Maize (Improved)</th> <th colspan="2">Peanuts (Improved)</th> <th colspan="2">Redbean (Local)</th> </tr> <tr> <th>Volume of Seed</th> <th>Production <1</th> <th>Volume of Seed</th> <th>Production <1</th> <th>Volume of Seed</th> <th>Production <1</th> </tr> </thead> <tbody> <tr> <td>Hautoho</td> <td>3 plots</td> <td>22.0</td> <td>802.0</td> <td>2.0</td> <td>23.0</td> <td>22.0</td> <td>97.0</td> </tr> </tbody> </table> <p><i>Source: RAEBIA Timor-Leste (2015)</i></p> <ul style="list-style-type: none"> ◆ The average productivity of maize grown in the demonstration plots was considered rather higher than the national average, while the results in the sub-group plots were not as high as expected. ◆ It was considered that a dry spell in January and February 2015 affected the growth of maize and caused a rather low yield of maize. ◆ The beneficiaries' groups secured a total of 579 kg of improved seeds of maize for cropping in the main and sub-group demonstration plots as other individual plots in 2015/2016. <p style="text-align: center;">Volume of Seeds stored for Cropping in 2013/2014 (unit: kg)</p> <table border="1"> <thead> <tr> <th>Suco</th> <th>Maize (Improved)</th> <th>Peanuts (Improved)</th> <th>Bean</th> </tr> </thead> <tbody> <tr> <td>Hautoho</td> <td>579.0</td> <td>115.0</td> <td>71.0</td> </tr> </tbody> </table> <p><i>Source: RAEBIA Timor-Leste (2015)</i></p>	Suco	No. of plots	Maize (Improved)		Peanuts (Improved)		Redbean (Local)		Volume of Seed	Production <1	Volume of Seed	Production <1	Volume of Seed	Production <1	Hautoho	3 plots	6.0	500.0	6.0	132.0	6.0	58.0	Suco	No. of plots	Maize (Improved)		Peanuts (Improved)		Redbean (Local)		Volume of Seed	Production <1	Volume of Seed	Production <1	Volume of Seed	Production <1	Hautoho	3 plots	22.0	802.0	2.0	23.0	22.0	97.0	Suco	Maize (Improved)	Peanuts (Improved)	Bean	Hautoho	579.0	115.0	71.0
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Micro Program	Suco	Results of the Activities										
IG/LD-MP	Hautoho	<ul style="list-style-type: none"> ◆ The women groups have produced more than 200 packages of kontas chips through a series of hands-on training and OJT in producing kontas chips since July 2014. The women groups have been able to improve the quality of kontas chips and finally sell the products at the major super markets in Dili. As of the end of July 2015, the groups have delivered more than 400 packages of kontas chips to the major supermarkets in Dili to sell the product on a consignment agreement and earned about US\$ 700 from the sales (at the price of US\$ 1.6/package). ◆ A total of seven (7) members of the groups have produced about 1.5 kg of herbal tea and earned about US\$ 22 from the sales of herbal tea to PARCIC. ◆ The groups have also been able to earn cash income from mending clothes by using sewing machines as a result of continuous OJT in operating the machines. 										
SUB/PF-MP	Tohumeta	<ul style="list-style-type: none"> ◆ The average productivity of maize grown in the demonstration plots was twice as high as that of the national average. In all the demonstration plots, the ratio of production to volume of seeds sown was more than 100. The results suggested that the average yield of maize in farms where the same techniques were introduced might be more or less 2 ton/ha. <p style="text-align: center;">Harvest volume at the demonstration plots (unit: kg)</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">No. of plots</th> <th colspan="2">Maize (Improved)</th> </tr> <tr> <th>Volume of Seed</th> <th>Production <1</th> </tr> </thead> <tbody> <tr> <td>Tohumeta</td> <td>8 plots</td> <td>22.0</td> <td>2,870.0</td> </tr> </tbody> </table> <p style="text-align: center;"><i>Source: RAEBIA Timor-Leste (2015)</i></p> <ul style="list-style-type: none"> ◆ Each beneficiaries' group saved 10 to 20 kg of maize from the harvest. A total of 100 kg of improved seeds were secured for cropping in 2015/2016. 	Suco	No. of plots	Maize (Improved)		Volume of Seed	Production <1	Tohumeta	8 plots	22.0	2,870.0
Suco	No. of plots	Maize (Improved)										
		Volume of Seed	Production <1									
Tohumeta	8 plots	22.0	2,870.0									

Source: JICA Project Team (2015)

(7) Final Evaluation of the Micro Programs

Lik in the case of the 1st batch sucos, the NGOs arranged and held a one-day meeting each for the respective micro programs with the beneficiaries'/women groups on the following dates to help the members evaluate the results of the micro programs and develop work plans of the respective micro programs.

Final Evaluation Meetings held at Hautoho and Tohumeta

Micro program	Suco	Date	No. of participants
SUFP with CBSE-MP	Hautoho	July 2, 2015	34 members from both micro programs
IG/LD-MP	Hautoho	July 2, 2015	
SUB/PF-MP	Tohumeta	June 17, 2015	29 members

Source: JICA Project Team (2015)

The beneficiaries' and women groups reviewed their performance and results of the micro programs, discussed any difficulties that they had faced, evaluated the effectiveness and applicability of the techniques introduced by the micro programs in the meetings. They also discussed an annual work plan of each micro program in 2015/2016 as all the groups showed their intention to continue the micro program activities even after the end of the support from JICA.

Appendix-3.9 stored in the CD attached to this report shows the work plans developed by the beneficiaries' groups of the micro programs.

3.6 Exchange Visits (Harvesting Ceremonies) at the Target Villages

Over the course of implementation of the micro programs, the JICA Project Team and the NGOs have arranged and organized harvesting ceremonies in Suco Fadabloco and Tohumeta in 2014 and 2015, respectively, as exchange visits for village leaders and key members of the beneficiaries' groups in all the target sucos.

Exchange Visits arranged for the Beneficiaries'/Women Groups

Event	Date	Venue	No. of Participants	Remarks
Hrvesting ceremony	Mar. 13, 2014	Hautoho	111 members from six sucos	Representatives from NDF, MAF district office, JICA TL office, GIZ, and HASAT attended the ceremony.
Hrvesting ceremony	Mar. 26, 2015	Tohhumeta	26 members from 5 sucos	DG of MAF (forestry), Director of MAF district office, Administrator of Laulara sub-district administrative office, and representatives of NDF and RAEBIA attended the ceremony.

Source: JICA Project Team (2015)

The main aim of the exchange visits was to motivate village leaders and key members of the beneficiaries'/women groups to work on the micro programs after observing substantial results generated by similar farmers in the field and share lessons learned among the members to improve the micro program activities. In the ceremonies, village leaders and key members of the host communities introduced their activities and results of the micro programs and had meetings with visitors to exchange their views. The exchange visits became a good opportunity not only for the participants to get stimulated but also for communities in the host sucos to enhance their senses of ownership of the micro programs.

3.7 Establishment of the Watershed Management Council

3.7.1 Background

The incidence of forest fires, illegal cutting, and crop damage caused by animal grazing has been reduced since the village regulations were in place in the target sucos. However, there have been still some illegal cases happening in the sucos as it is almost impossible for the village regulations in the target sucos to regulate and control illegal activities caused by people living in the neighboring sucos. Given the fact that the effectiveness of the village regulations in the target sucos is limited to communities orgnationally belonging to the sucos, the JICA Project Team and the NGO decided to form a platform where the target and the neighboring sucos could have dialogues and take necessary actions for sustainable management and conservation of natural resource at the sub-watershed level. Furthermore, the JICA Project Team considered that the platform could function as an institutional framework to scale up the CB-NRM mechanism from the village level to the sub-ditric/sub-watershed level.

To this end, the JICA and MAF Project Teams together with the NGO have had a series of meetings with leaders of two (2) sub-district administrative offices and 12 sucos including Faturasa, Fadabloco, and Hautoho, which geologically relate to the Noru sub-watershed. The processes and results of the formation of the watershed management council of the Noru watershed are outlined in the following sections. More details of the results of the activities are given in **Appendix-3.9** stored in the CD attached to this report.

3.7.2 Target Area

As forest fires and animal grazing caused by the neighboring sucos were crucial issues in Suco Faturasa and Fadabloco, the JICA Project Team selected the Noru sub-watershed where those villages were located as a target watershed for this purpose. The Noru watershed is one of the sub-watersheds of the Laclo river basin and overlaps its territory with 12 sucos, six (6) sucos administratively located in Sub-district Remexio and another six (6) located in Sub-district Liquidoe. The following table shows the sub-districts and sucos relating to the Noru watershed.

Sub-districts and Suco relating to the Noru Watershed

Area of the watershed	Related Sub-districts	Related Sucos
12,851 ha	Remexio Liquidoe	Asumau, Faturasa, Fahisoi, Fadabloco, Hautoho, Maumeta Ftrilau, Bereleu, Acubili Toho, Namcleso, Manucasa, and Fahisoi

Source: JICA Project Team (2014)

3.7.3 Major Activities for Establishment of the Watershed Management Council

The following four (4) types of activities have been carried out to establish and institutionalize a watershed management council of the Noru watershed.

- i) Meetings with leaders of sucos and sub-district administrative offices relevant to the Noru watershed to form a watershed management council;
- ii) Development of a watershed management plan for the Noru watershed through dialogues with members of the watershed management council; and
- iii) Meetings with the members of the watershed management council to monitor the situation of the watershed, especially any events and activities affecting natural resource management in the watershed.

The following key stakeholders have been involved in the above-mentioned activities.

- Sub-district administrators of the Sub-district Administrative Offices of Remexio and Liquidoe;
- Chefs de Suco of Six (6) Sucos in Remexio Sub-district (Sucos Faturasa, Fadabloco, Hautoho, Fahisoi, Maumeta, and Asumau);
- Chefs de Suco of Six (6) Sucos in Liquidoe Sub-district (Sucos Fahisoi, Faturilau, Bereleu, Acubili, Namcleso, and Manucasa);
- Director of District Office of the National Directorate of Environment in Aileu;
- Director of Sub-district Offices of the National Directorate of Water Supply and Sanitation in Sub-district Remexio and Liquidoe;
- Director / Chief of Department of the National Directorate of Forest and Watershed Management; and
- Director of MAF District Office in Aileu.

(1) Meetings for Establishment of the Watershed Management Council

To establish the watershed management council, the JICA Project Team and the NGO have held the following meetings with the aforementioned stakeholders.

Meetings for Establishment of the Watershed Management Council

Meetings	Date	No. of participants	Venue	Purposes
Consultation with sub-district administrative offices	May 6, 2014	5 participants	Sub-district Administrative Office of Remexio	▶ To obtain consent from sub-district administrators concerned on the formation of the watershed management council
	May 27, 2014	5 participants	Sub-district Administrative Office of Liquidoe	▶ To seek assistance in the organization of meetings for the formation of the council
Consultation with village leaders	June 6, 2014	14 participants	Sub-district Administrative Office of Remexio	▶ To obtain consent from village leaders concerned on the formation of the council
	June 17, 2014	10 participants	Sub-district Administrative Office of Liquidoe	▶ To explain major activities for the formation of the council
Study tour to the target suco	June 18, 2014	15 participants	Suco Fadabloco Suco Faturasa	▶ To introduce activities and results of the CB-NRM mechanism

Meetings	Date	No. of participants	Venue	Purposes
Study tour to the Raumoco watershed	June 25, 2014	16 participants	Sub-district Administrative Office of Luro, Lauten	<ul style="list-style-type: none"> ▶ To introduce the existing watershed management council and their activities
Meeting for stakeholder analysis	July 8, 2014	14 participants	Sub-district Administrative Office of Liquidoe	<ul style="list-style-type: none"> ▶ To identify relevant stakeholders and analyze importance of the stakeholders for watershed management ▶ To identify members of the council
Meeting for situation analysis	July 18, 2014	14 participants	Sub-district Administrative Office of Remexio	<ul style="list-style-type: none"> ▶ To assess the current conditions of the watershed ▶ To identify causes of forest and watershed degradation
Meeting for future visioning	July 25, 2014	14 participants	Sub-district Administrative Office of Liquidoe	<ul style="list-style-type: none"> ▶ To discuss and determine the future vision of the watershed ▶ To discuss missions, objectives, and functions of the council
Discussion on draft bylaws, vision, missions.	August 21, 2014	15 participants	Sub-district Administrative Office of Remexio	<ul style="list-style-type: none"> ▶ To discuss bylaws of the council ▶ To discuss and finalize the vision, missions, objectives, and functions of the council

Source: JICA Project Team (2015)

As a result of a series of discussions listed above, the members of the watershed management council developed the resolution on the formation the Noru watershed management council which consists of the following documents:



Discussion of visions of the council

- ▶ List of members of the council with roles and responsibilities of the respective members;
- ▶ By-laws of the council; and
- ▶ Vision, missions, objectives, and functions of the council.

(2) Meetings for Development of a Watershed Management Plan

Pursuant to the bylaws of the watershed management council, the council has held a total of five (5) regular meetings by having a meeting on a quarterly basis. The following table shows the major topics discussed and results of the discussions in the respective meetings.

Meetings for Planning of the Draft Watershed Management Plan

Meeting	Date	No. of participants	Venue	Topics
1 st meeting	September 30, 2014	15 participants	Sub-district Administrative Office of Liquidoe	<ul style="list-style-type: none"> ▶ Purpose of a watershed management plan ▶ Outline of the watershed management plan of the Laclon Comoro river basins
2 nd meeting	October 10, 2014	15 participants	Sub-district Administrative Office of Remexio	<ul style="list-style-type: none"> ▶ Present conditions of the Noru watershed ▶ Draft version of Chapters 1 and 2 of the plan
3 rd meeting	October 23, 2014	17 participants	Sub-district Administrative Office of Liquidoe	<ul style="list-style-type: none"> ▶ Current issues and concerns on watershed management ▶ Objectives of the watershed management plan ▶ Draft version of Chapters 3 and 4 of the plan
4 th meeting	November 07, 2014	18 participants	Sub-district Administrative Office of Remexio	<ul style="list-style-type: none"> ▶ Outline of the watershed management plan ▶ Draft version of Chapters 5 and 6 of the plan
5 th meeting	January 23, 2015	16 participants	Sub-district Administrative	<ul style="list-style-type: none"> ▶ Final version of the watershed management plan

Meeting	Date	No. of participants	Venue	Topics
			Office of Liquidoe	<ul style="list-style-type: none"> ▶ Draft resolution on the submission of the watershed management plan
6 th meeting	February 26, 2015	18 participants	Sub-district Administrative Office of Remexio	<ul style="list-style-type: none"> ▶ Final version of the resolution ▶ Submission of the watershed management plan

Source: JICA Project Team (2015)

By the end of February 2015, the council developed the watershed management plan composed of the following six (6) chapters.

- Chapter 1 Introduction
- Chapter 2 Present Conditions of the Noru Watershed
- Chapter 3 Current Issues on Watershed Management and Stakeholders relevant to Watershed Management
- Chapter 4 Goal and Strategic Objectives of the Watershed Management Plan
- Chapter 5 Watershed Management Plan
- Chapter 6 Implementation Plan

(3) Regular Meetings to Monitor the Situations of the Watershed

Pursuant to the bylaws of the watershed management council, the council has held a total of five (5) regular meetings having a meeting on a quarterly basis. The following table shows the major topics discussed and results of the discussions in the respective meetings.

Regular Meetings held by the Watershed Management Council

Meeting	Date	No. of participants	Venue	Topics
1 st regular meeting	September 30, 2014	15 participants	Sub-district Administrative Office of Liquidoe	<ul style="list-style-type: none"> ▶ Present conditions of 12 sucos ▶ Forest fires in the area ▶ Resolution on establishment of the council
2 nd regular meeting	January 23, 2015	16 participants	Sub-district Administrative Office of Liquidoe	<ul style="list-style-type: none"> ▶ Present conditions of 12 sucos ▶ Watershed management plan
3 rd regular meeting	March 27, 2015	15 participants	Sub-district Administrative Office of Liquidoe	<ul style="list-style-type: none"> ▶ Present conditions of 12 sucos ▶ Resolution on submission of the plan
4 th regular meeting	June 26, 2015	17 participants	Sub-district Administrative Office of Remexio	<ul style="list-style-type: none"> ▶ Present conditions of 12 sucos ▶ Customary ceremony to prevent wildfires ▶ Requirement of seedlings for improvement of micro catchments in the area
5 th regular meeting	October 2, 2015	17 participants	Sub-district Administrative Office of Remexio	<ul style="list-style-type: none"> ▶ Present conditions of 12 sucos ▶ Draft resolution with a request/proposal for provision of seedlings for improvement of micro catchments in the area

Source: JICA Project Team (2015)

In the meetings, the members of the council from the 12 sucos (chef de suco or representatives) first reported the situations of the respective sucos, particularly any issues and concerns on natural resource management, and discussed necessary actions to be taken if there were any issues that the members or council needed to address



2nd regular meeting at Liquidoe

collaborately. The members also discussed other matters relating to management of the watershed management council as shown above. The memos of the regular meetings listed above are shown in **Appendix-3.10** stored in the CD attached this report.

Chapter 4 Results of the Activities under Output 2

4.1 Preparation of Training Materials and Capacity Development Plans

4.1.1 Orientation for the Counterparts from the MAF District Office in Aileu

In February 2011, the JICA and MAF Project Team jointly held an orientation seminar for the counterparts from the MAF District Office in Aileu, especially extensionists and forest guards, to make them aware of their new assignments for the Project. A total of 17 counterparts attended the seminar. The agenda of the orientation was as follows:



Orientation for the Counterparts

- 1) Explanation of project background and purpose of the seminar;
- 2) Presentation of the outline of the Project;
- 3) Guidance on the functions of the counterparts; and
- 4) Questions and answers (Open discussions).

4.1.2 Development of a MAF Administrative Order on the Appointment of the Counterparts with Operation Guidelines

The JICA Project Team drafted a government order on the appointment of the counterparts for the Project with operation guidelines for the counterparts through discussions with NDF. The draft order was submitted to NDF in January 2011, and officially approved by MAF in the end of the same month. The JICA Project Team explained the operation guidelines, especially roles and responsibilities of the counterparts described in the guidelines, to the counterparts in the weekly meetings with the counterparts, so that they could understand their roles in the Project.

The order and guidelines were further amended in May 2011 to improve the communication between the JICA Project Team and the counterparts and facilitate the smooth implementation of the Project. The amendment was officially approved by General Director of MAF on July 20, 2011 (Ref: No. 891/GDG/VII/2011) as shown in **Appendix-4.1** stored in the CD attached to this report. The same was shared with the counterparts in the same month.

4.1.3 Collection of Useful Existing CB-NRM Practices and Technologies

In order to develop materials for technical seminars/training courses for the counterparts on techniques relevant to CB-NRM, the JICA Project Team collected a total of 49 types of existing technical documents, such as manuals, guidebooks, guidelines, handbooks, and any other technical references from NDF, NGOs, and other donor-funded projects in February and March 2011. Some documents were also downloaded from the relevant web-sites for those still new to the country. **Appendix-4.2** stored in the CD attached to this report shows the list of the documents collected by the JICA Project Team, and the following tables show its summary.

Documents collected by the JICA Project Team on CB-NRM Techniques

Sector	Key words	No. of documents
Forestry	Forestry, Silviculture, Agroforestry	7
Land use planning	Land use planning, Land allocation	8
Agriculture	Crop production and agroforestry	15
Livelihood	NTFP, Processing, Enterprise development	10

Sector	Key words	No. of documents
Others	Medicinal plant, Natural resource management, greening	9
Total		49

Source: JICA Project Team (2011)

4.1.4 Training Need Assessment (TNA)

(1) Conduct of aTNA Survey

In order to assess the gaps between the expected responsibilities of the counterparts and their current capacities or skills, the JICA Project Team conducted a training need assessment survey (TNA survey) using a set of questionnaires. Prior to the survey, the JICA Project Team fully explained the outlines of the survey to the counterparts so that they would provide their personal information with the understanding of the aim of the survey.



TNA targeting the Counterparts

The questionnaires designed to collect the following information were distributed to 20 counterparts in February 2011.

- Education attainment and past training experience
- Main duties and/or tasks of the staff in the office/unit that he/she belongs to
- Self-assessment of competence for the present roles
- Self-assessment of understanding level or skill level of the relevant techniques
- Ideas on the effective training methods

A total of 19 sets of questionnaires were collected from the counterparts and used for assessment. Interviews to the supervisors of the counterparts were also conducted to clarify the training needs of the counterparts from the managers' point of view.

(2) Analysis of the Results of the Training Needs Assessment Survey

Having analyzed the collected questionnaires and the results of the interviews to the supervisors, the JICA Project Team identified the gaps in the counterparts' capacities to be filled for them to implement a project/program similar in nature to the Project. Some highlights of the analysis are summarized in the following sections. Detailed results of the assessment are shown in **Appendix-4.3** stored in the CD attached to this report.

a. General Training Needs

The results of the self-assessment showed that all the counterparts were willing to improve their current skills, although most of them were satisfied with their performance as well as current skill level as compared to their tasks and responsibilities. However, the interviews to the supervisors revealed that they were not necessarily satisfied with the current performance and capacities of the counterparts.

Answers to the Questions on the General Training Needs

Self-evaluation by Counterparts

Topics	NDF	DOF*	Other District officers	Forest guards	Extensionists	Secretary
Willingness to improve skills	Yes	Yes	Yes	Yes	Yes	Yes
Matching of roles with qualification and abilities	Bit difficult-Just match	Just match	Just match - Personnel qualification is	Too difficult - Just match	Bit difficult - Just match	Just enough

Topics	NDF	DOF*	Other District officers	Forest guards	Extensionists	Secretary
			too high for present work			
Level of satisfaction about present performance	Need some improvement-Very satisfactory	Need some improvement-Very satisfactory	Need some improvement-Outstanding	Need some improvement-Outstanding	Fair-Outstanding	Very satisfactory
Present skill level compared with duties	Bit inadequate - Just enough	Just enough	Just enough	Just enough - More than enough	Just enough - More than enough	Just enough

Note: Technical staff in Forestry is included.*

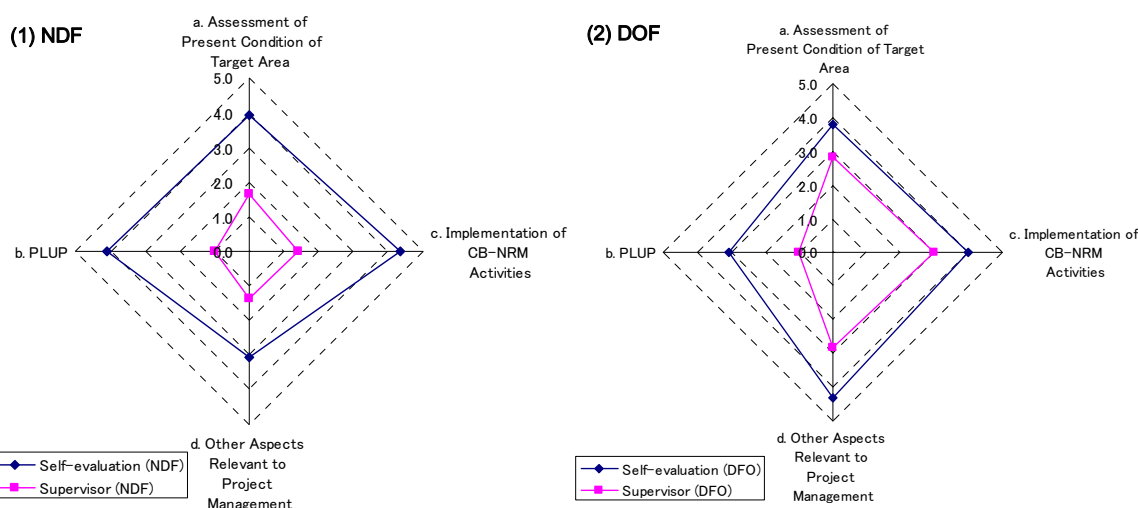
Evaluation by Supervisors

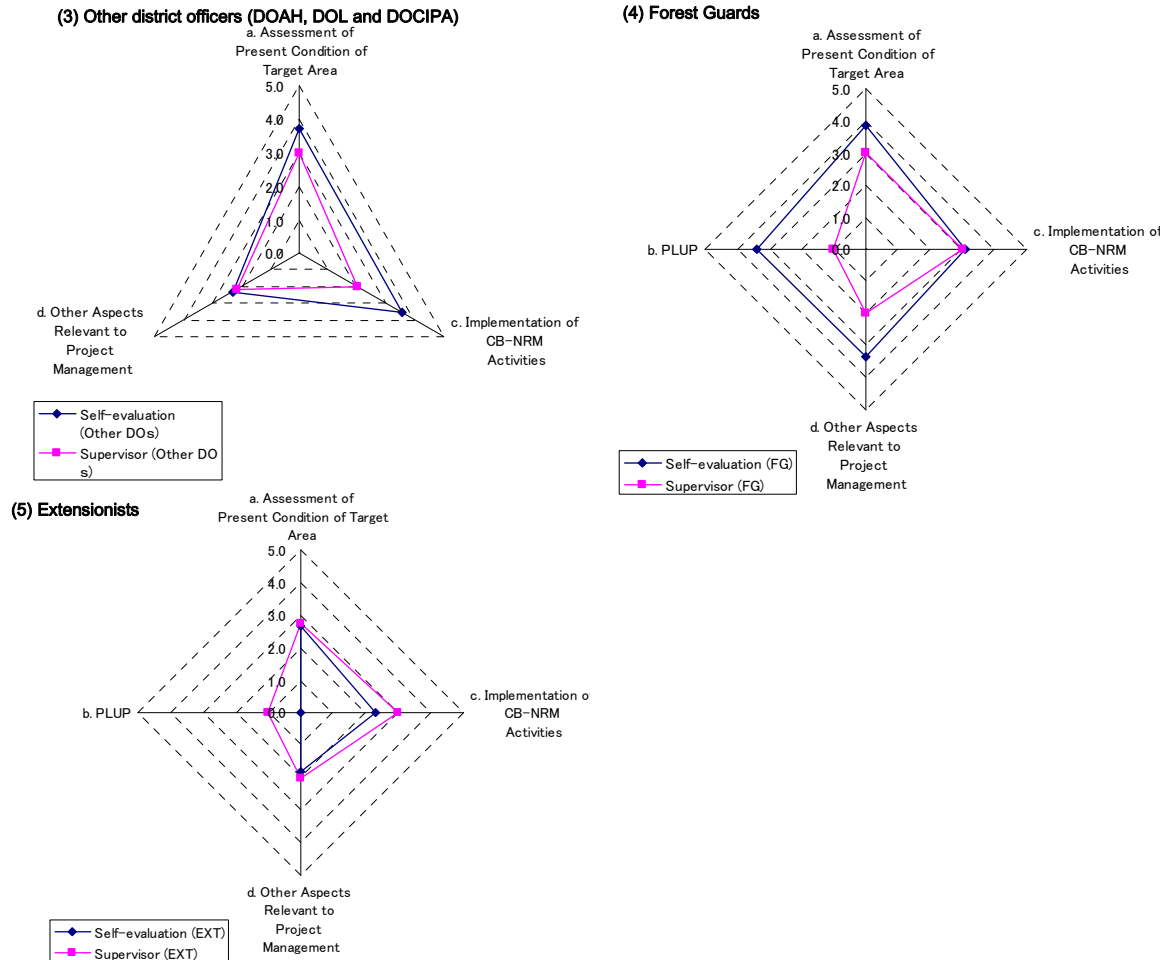
Topics	SV for NDF	SV for DFOs	SV for other district officers	SV for Forest Guards	SV for extensionists
Understanding level of duties/responsibilities	Fair	Fair-Relatively high	Fair	Fair	Fair
Fulfillment level of duties/responsibilities	Fair	Fair-Relatively high	Fair	Fair	Fair
Understanding level of roles and tasks of organization	Relatively low	Fair-Relatively high	Fair	Fair	Fair
Coordination between/among units of the office	Fair	Fair-Relatively high	Fair	Fair	Fair

Source: JICA Project Team (2011)

b. Gaps in the Counterparts' Capacities for Implementation of a CB-NRM Project

The counterparts' capacities for implementation of a CB-NRM project/program or a project/program similar in nature to the JICA Project were evaluated in terms of the following four points: i) knowledge and skills on situation analysis of target areas; ii) knowledge and skills on participatory land use planning; iii) knowledge and skills on the implementation of CB-NRM activities; and iv) skills and ability on other matters relevant to project management. The results of the surveys revealed that the counterparts needed to enhance their skills and knowledge of all the four points to enable them to implement a CB-NRM project in future. The following diagrams show the gaps between the self-evaluation and supervisors' evaluation of the capacities of the counterparts.





Gaps of the Results of Self-evaluation and Evaluation by the Supervisor

(3) Preparation of the Capacity Development Plan for the Counterparts

Based on the results of the training need assessment and consultation meetings with the counterparts, the JICA Project Team prepared the capacity development plan in June/July 2011.

The capacity development plan was further revised and updated by the JIC Project Team in May 2013 to i) make its goal more realistic and achievable as compared to the capacity level of the counterparts and ii) revise the training curricula for the counterparts according to the revised goal. Having had a series of meetings with the counterparts, the JICA Project Team finalized and submitted the revised capacity development plan to NDF/MAF in July 2013.

Appendix-4.4 stored in the CD attached to this report shows the revised capacity development plan, and the following table shows the capacity development frameworks developed for the respective types of counterparts in the revised plan.

Capacity Development Frameworks for the Counterparts

a. Central NDF Staff

Timeframe	Step 1 (Awareness phase)	Step 2 (Understanding phase)	Step 3 (Practice phase)
Aim of Cap Dev	<ul style="list-style-type: none"> ➢ Make C/Ps aware of the overall process of CB-NRM ➢ Make C/Ps aware of the process of introduction of CB-NRM on a village level 	<ul style="list-style-type: none"> ➢ Help C/Ps understand the processes and procedures for implementation of a CB-NRM project. ➢ Help CPs understand how to guide and orient local communities towards sustainable management of forest resources. ➢ Help C/Ps understand how to monitor and supervise the NGOs' activities and provide effective guidance to the NGOs. 	<ul style="list-style-type: none"> ➢ Develop C/Ps' capacity to implement a CB-NRM project in coordination with relevant stakeholders. ➢ Develop C/Ps' capacity to monitor, supervise and evaluate the NGO's/contractor's activities. ➢ Develop C/Ps' capacity to provide technical guidance to other NDF/MAF staff on the process of CB-NRM as well as the forest and agroforestry techniques.
Timing	May 2011 – March 2012	May 2011 – March 2015	May 2013 – October 2015 (to be extended by NDF)
Project Activities related	<ul style="list-style-type: none"> ➢ Regular meetings with JICA Project Team ➢ Guidance/Introductory meetings for MAF/NDF ➢ Technical seminars ➢ OJT in monitoring the project activities 	<ul style="list-style-type: none"> ➢ OJT in monitoring the project activities and making a monitoring report ➢ OJT in helping local leaders manage natural resources using the village regulations ➢ Technical seminars ➢ Regular meetings with JICA Project Team ➢ Guidance/Introductory meetings for MAF/NDF 	<ul style="list-style-type: none"> ➢ Seminar/workshop on annual planning ➢ Technical guidance for the staff of NDF and MAF (TOT) ➢ OJT in training local communities on the techniques related to the NDF 's tasks ➢ OJT in the conducts of PRA and PLUP (Trial application of PRA and PLUP to the neighboring villages)
Responsible bodies	➢ JICA Project Team	<ul style="list-style-type: none"> ➢ JICA Project Team ➢ NGO (Supporter in OJT) 	<ul style="list-style-type: none"> ➢ NDF ➢ JICA Project Team

b. District Forestry Officers

Timeframe	Step 1 (Awareness phase)	Step 2 (Understanding phase)	Step 3 (Practice phase)
Aim of Cap Dev	<ul style="list-style-type: none"> ➢ Make C/Ps aware of the overall process of CB-NRM ➢ Make C/Ps aware of the process of introduction of CB-NRM on a village level 	<ul style="list-style-type: none"> ➢ Help C/Ps understand the processes and procedures for PLUP and selection of micro programs. ➢ Help C/P understand how to guide and orient local communities towards sustainable management of forest resources. ➢ Help C/Ps understand how to monitor and supervise the NGOs' activities and provide effective guidance to the NGOs. 	<ul style="list-style-type: none"> ➢ Develop C/P's capacity to make an annual work and budget plan for the conduct of CB-NRM activities in the district. ➢ Develop C/Ps' capacities to monitor, supervise and evaluate the NGO's/contractor's activities and to prepare a report on monitoring and evaluation. ➢ Develop C/Ps' capacity to provide technical guidance to extensionists and local communities on PLUP and the forestry/agroforestry techniques.
Timing	May 2011 – March 2012	May 2011 – March 2015	May 2013 – October 2015 (to be extended by NDF)
Project Activities related	<ul style="list-style-type: none"> ➢ Regular meetings with JICA Project Team ➢ Guidance/Introductory meetings for MAF/NDF ➢ Technical seminars ➢ OJT in monitoring the project activities 	<ul style="list-style-type: none"> ➢ OJT in monitoring the project activities and making a monitoring report ➢ OJT in helping local leaders manage natural resources using the village regulations ➢ Technical seminars ➢ Regular meetings with JICA Project Team ➢ TOT seminars (Presentation / Guidance to other MAF Staff) 	<ul style="list-style-type: none"> ➢ Seminar/workshop on annual planning ➢ Technical guidance for the staff of NDF and MAF (TOT) ➢ OJT in training local communities on the techniques related to the NDF 's tasks ➢ OJT in the conducts of PRA and PLUP (Trial application of PRA and PLUP to the neighboring villages)
Responsible bodies	➢ JICA Project Team	<ul style="list-style-type: none"> ➢ JICA Project Team ➢ NGO (Supporter in OJT) 	<ul style="list-style-type: none"> ➢ NDF ➢ JICA Project Team

c. Forest Guards

Timeframe	Step 1 (Awareness phase)	Step 2 (Understanding phase)	Step 3 (Practice phase)
Aim of Cap Dev	<ul style="list-style-type: none"> ➢ Make C/Ps aware of the importance/effectiveness of CB-NRM and overall process of PLUP 	<ul style="list-style-type: none"> ➢ Help C/Ps understand the processes and procedures for PLUP. ➢ Help C/Ps understand their roles in the enforcement and implementation of the village regulations to protect forest on a village level. ➢ Help C/Ps understand how to monitor and supervise the NGOs' activities. 	<ul style="list-style-type: none"> ➢ Develop C/Ps' capacity to assist the NGO/contractor or District Forestry Officer in the implementation of PLUP. ➢ Develop C/Ps' capacity to assist local leaders in the management and protection of forest and natural resources by using the village regulations. ➢ Develop C/Ps' capacity to monitor the activities of the NGO/contractor and make a monitoring report to NDF.
Timing	May 2011 – March 2012	May 2011 – March 2015	May 2013 – October 2015 (to be extended by NDF)
Project Activities related	<ul style="list-style-type: none"> ➢ Regular meetings with JICA Project Team ➢ Technical seminars ➢ OJT in monitoring the project activities 	<ul style="list-style-type: none"> ➢ OJT in monitoring the project activities and making a monitoring report ➢ OJT in helping local leaders manage natural resources using the village regulations ➢ Technical seminars ➢ Regular meetings with JICA Project Team ➢ TOT seminars (Presentation / Guidance to other MAF Staff) 	<ul style="list-style-type: none"> ➢ OJT in monitoring the project activities and making a monitoring report ➢ OJT in helping local leaders manage natural resources using the village regulations ➢ OJT in the conducts of PRA and PLUP (Trial application of PRA and PLUP to the neighboring villages) with Central NDF Staff and District Forestry Officer
Responsible bodies	<ul style="list-style-type: none"> ➢ JICA Project Team 	<ul style="list-style-type: none"> ➢ JICA Project Team 	<ul style="list-style-type: none"> ➢ NDF ➢ JICA Project Team

d. Extensionists

Timeframe	Step 1 (Awareness phase)	Step 2 (Understanding phase)	Step 3 (Practice phase)
Aim of Cap Dev	<ul style="list-style-type: none"> ➢ Make C/Ps aware of the importance of CB-NRM and the overall process of CB-NRM. 	<ul style="list-style-type: none"> ➢ Help C/Ps understand the major techniques effective in CB-NRM and their important points in the application. ➢ Develop C/Ps' capacity to be an assistant for the NGO/contractor in the conducts of training on the CB-NRM techniques. 	<ul style="list-style-type: none"> ➢ Develop C/Ps' capacity to provide technical guidance and training on the relevant techniques effective in CB-NRM to local communities in coordination with District MAF Officers or the NGO/contractor.
Timing	May 2011 – March 2012	May 2011 – March 2015	May 2013 – October 2015 (to be extended by MAF)
Project Activities related	<ul style="list-style-type: none"> ➢ Regular meetings with JICA Project Team ➢ Technical seminars 	<ul style="list-style-type: none"> ➢ Regular meetings with JICA Project Team ➢ Technical seminars ➢ OJT in providing technical guidance to local communities in coordination with the NGOs. 	<ul style="list-style-type: none"> ➢ OJT in providing technical guidance to local communities in coordination with the NGOs.
Responsible bodies	<ul style="list-style-type: none"> ➢ JICA Project Team ➢ NGO (Supporter in OJT) 	<ul style="list-style-type: none"> ➢ JICA Project Team ➢ NGO (Supporter in OJT) 	<ul style="list-style-type: none"> ➢ MAF ➢ JICA Project Team

e. District officers in other technical fields

Timeframe	Step 1 (Awareness phase)	Step 2 (Understanding phase)	Step 3 (Practice phase)
Aim of Cap Dev	<ul style="list-style-type: none"> ➢ Make C/Ps aware of the importance and overall process of CB-NRM on a village level 	<ul style="list-style-type: none"> ➢ Help C/Ps understand the key techniques which are effective in CB-NRM and relevant to the respective technical fields. ➢ Make C/Ps aware of their roles in the introduction of CB-NRM on a village level. 	<ul style="list-style-type: none"> ➢ Develop C/Ps' capacity to provide training and technical guidance to extensionists and local communities on the key techniques relevant to the respective technical fields.
Timing	May 2011 – March 2012	May 2012 – March 2015	May 2013 – October 2015
Project Activities related	<ul style="list-style-type: none"> ➢ Regular meetings with JICA Project Team ➢ Technical seminars 	<ul style="list-style-type: none"> ➢ Regular meetings with JICA Project Team ➢ Technical seminars ➢ OJT in monitoring the project activities 	<ul style="list-style-type: none"> ➢ OJT in monitoring the project activities ➢ OJT in providing technical guidance and training to local communities on the key techniques relevant to the respective technical fields in coordination with the NGOs.
Responsible bodies	<ul style="list-style-type: none"> ➢ JICA Project Team ➢ NGO (Supporter in OJT) 	<ul style="list-style-type: none"> ➢ JICA Project Team ➢ NGO (Supporter in OJT) 	<ul style="list-style-type: none"> ➢ MAF ➢ JICA Project Team

Source: JICA Project Team (2013)

4.2 Technical Seminars and OJT for the Counterparts

4.2.1 Technical Seminars held for the Counterparts

In order to help the counterparts get a clearer picture of the whole process of CB-NRM and learn its requisite procedures and techniques, the JICA Project Team has held a series of technical seminars on key topics essential to CB-NRM. As of the end of March, 2015, a total of 18 technical seminars have been arranged and organized by the JICA Project Team for the counterparts as shown below.



Technical Seminar @ Aileu

Technical Seminars held by the JICA Project Team for the Counterparts

Technical seminar	Date of Seminar	No. of participants
1. Overall concept of CB-NRM	May 26, 2011	11 persons
2. Concept and overall process of PLUP	June 2, 2011	13 persons
3. Procedures for PLUP in the planning phase	June 8, 2011	13 persons
4. Procedures for PLUP in the implementation phase	July 22, 2011	15 persons
5. Selection of priority micro programs	Oct. 7, 2011	7 persons
6. Outlines of the selected micro programs	Nov. 25, 2011	7 persons
7. Group Organization for Implementation of Micro Program	February 13, 2012	15 persons
8. Major techniques introduced by the micro programs - Outlines and overall work plan of the micro programs - Major techniques/skills of SPTPP-MP - Major techniques/skills of SUFP / CBSE-MP - Major techniques/skills of IG/LD-MP - Detailed procedures for PLUP	June 8, 2012	12 persons
9. Overall concept of CB-NRM	June 18, 2012	14 persons
10. Facilitation skills	October 8, 2012	14 persons
11. Major techniques and skills of the micro programs - Techniques on sloping agriculture/agroforestry - Techniques on seedling production and tree planting - Techniques on upland farming - Techniques on livelihood development - Techniques on soil and water conservation	November 9, 2012	13 persons
12. PRA (As a part of the three-day training session)	January 22, 2013	13 persons
13. Participatory planning, monitoring and evaluation	February 11, 2013	14 persons
14. Terms of Reference	June 07, 2013	2 person <1
15. Major techniques introduced by the micro programs (refreshing courses) - Overall concept of CB-NRM - Seedling production and tree planting - Agroforestry and sloping agriculture - Income generating and livelihood development - Initial gully erosion control - Upland farming - Home garden	June 17 and 18, 2013	15 person for 2 days
16. Facilitation skills (refreshing course)	July 15, 2013	12 persons
17. Building of an animal pen	June 16, 2014	10 persons
18. Utilization of natural resources for livelihood development	March 02, 2015	16 persons including 5 NGO officers, and 1 JOCV

Source: JICA Project Team (2015)

After each technical seminar, the JICA Project Team requested the participants to assess the effectiveness of the seminar in terms of “clarity of explanation,” “appropriateness of a material used in the seminar,” and “relevance of a topic to their tasks” by using preset questionnaires. The results of evaluation of the seminars are summarized below.

Summary of the Results of Evaluation of the Technical Seminars

No of seminar	Ave. % of participation in the seminar	of in	Clearness of explanation	Appropriateness of the material	Relevancy of topic
15	76.2		4.2/5	4.3/5	4.3/5

Source: JICA Project Team (2015)

4.2.2 On-the-Job Training (OJT)

(1) Monitoring of the Project Activities

The JICA Project Team has arranged opportunities for the counterparts to observe and monitor the following activities together with the members of the JICA Project Team as a part of On-the-Job-Training (OJT) courses.

- a. Consultation meetings with local leaders and communities at the target sucos in 2011
- b. PRA sessions carried out by the NGOs in the target sucos in 2011 and 2012
- c. Participatory land use planning (PLUP) carried out by the NGOs in the target sucos in 2011 and 2012
- d. Sessions conducted by the NGOs for selection of the priority micro programs in the target sucos in 2011 and 2012
- e. Monthly meetings in the target sucos to monitor the occurrence of illegal cases and discuss solutions referring the village regulations from 2011 to 2015
- f. Activities carried out by the NGOs and members of the beneficiaries' groups in the course of the micro programs in the target sucos from 2012 to 2015

The following table shows the level of counterparts' participation in the above-listed activities as of the end of March 2015.

Participation of the Counterparts in OJT

Activities	Month and Year	Sucos	No. of CPs who participated in the work <1			
			Central	District	Ext'nist	F. Guards
1. Consultation meeting	Feb. 2011	6 sucos	6	3	3	
2. PLUP	May 2011-Aug 2012	6 sucos	29	14	33	20
3. Selection of micro programs	Sep. 2011-Dec. 2012	6 sucos	12	6	n.a.	18
4. Monthly monitoring meeting	Sep. 2011-Mar. 2015	6 sucos	88	38	n.a.	42
5. PRA	Sep. and Oct. 2011	6 sucos	1	2	1	2
6. Implementation of micro programs	Jan. 2012-Mar. 2015	6 sucos	298	260	n.a.	178

Note: <1 The numbers in the table shows the cumulative numbers of the counterparts who took part in the activities over the course of the Project.

Source: JICA Project Team (2011)

The counterparts except extension officers in MAF District Office in Aileu were requested to submit a field trip report in accordance with the operation guidelines when they visited the sites.

(2) Monitoring of Seedlings planted in the Field

As monitoring of the survival of seedlings in plantations is one of the crucial tasks of the counterparts in the forestry sector, namely NDFWM officers and District Forestry Officer/Forest Guards, the JICA Project Team arranged opportunities for the counterparts to survey the survival and growth conditions of seedlings planted by the beneficiaries' groups of SPTPP-MP in Sucos Madabeno and Tailtu. The survey was conducted twice

over the course of the Project to check the survival and growth conditions of seedlings planted in 2013 and 2014, respectively. The results of the surveys are summarized below.

Results of the Surveys conducted for Monitoring of Survival and Growth Conditions of Seedlings

Activities	Month	Participants	Outline of the Activities																																	
Survey in 2014	Jul.-Sep. 2014	9 members	<p>◆ The JICA and MAF Project Team randomly selected about 5 % of seedlings planted by the beneficiaries' groups of SPTPP-MP in Sucos Madabeno and Talitu prior to the field survey. The counterparts who took part in the survey check the survival of the seedlings and measured diameter and height of seedlings confirmed as alive. GPS data of the surveyed plots were also taken by the counterparts for proper recording.</p> <p>◆ The results of the survey are summarized below.</p> <table border="1"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">Total No. of Seedlings sampled</th> <th colspan="3">Survival condition</th> <th colspan="2">Growth conditions</th> </tr> <tr> <th>Alive</th> <th>Dead</th> <th>SR (%)</th> <th>Diameter (cm)</th> <th>Height (cm)</th> </tr> </thead> <tbody> <tr> <td>Madabeno</td> <td>1,948</td> <td>1,892</td> <td>56</td> <td>97.1</td> <td>16</td> <td>88</td> </tr> <tr> <td>Talitu</td> <td>1,434</td> <td>1,119</td> <td>315</td> <td>78.0</td> <td>-</td> <td>-</td> </tr> <tr> <td>Overall</td> <td>3,382</td> <td>3,001</td> <td>371</td> <td>89.0</td> <td>15</td> <td>83</td> </tr> </tbody> </table> <p><i>Source: JICA Project Team (2014)</i></p> <p>◆ Out of 3,382 seedlings surveyed in both sucos, about 3,000 seedlings were confirmed as alive. The survival rates of seedlings planted in Talitu was rather lower (78 % on average) as compared to those in Madabeno (97 % on average). Inadequate pitting which caused insufficient size of planting holes in addition to poor soil conditions was considered as the main cause of the low survival. The counterparts prepared a report on the survival surveys and submitted them to NDF in November 2014 with the assistance of the JICA Project Team.</p>	Suco	Total No. of Seedlings sampled	Survival condition			Growth conditions		Alive	Dead	SR (%)	Diameter (cm)	Height (cm)	Madabeno	1,948	1,892	56	97.1	16	88	Talitu	1,434	1,119	315	78.0	-	-	Overall	3,382	3,001	371	89.0	15	83
Suco	Total No. of Seedlings sampled	Survival condition				Growth conditions																														
		Alive	Dead	SR (%)	Diameter (cm)	Height (cm)																														
Madabeno	1,948	1,892	56	97.1	16	88																														
Talitu	1,434	1,119	315	78.0	-	-																														
Overall	3,382	3,001	371	89.0	15	83																														
Survey in 2015	Jun-Jul. 2015	8 members	<p>◆ Prior to the field survey, the JICA and MAF Project Team randomly selected five (5) members' plots in the respective aldeias in Suco Madabeno and Talitu to sample about 3 % of all the seedlings planted in both sucos in 2013/2014. In the field, the counterparts confirmed survival of seedlings planted in the sampled plots, measured diameter and height of those confirmed as alive, and obtained the coordinate data of the surveyed plots with GPS.</p> <p>◆ The results of the survey are summarized below.</p> <table border="1"> <thead> <tr> <th rowspan="2">Suco</th> <th rowspan="2">Total No. of Seedlings sampled</th> <th colspan="3">Survival condition</th> <th colspan="2">Growth conditions</th> </tr> <tr> <th>Alive</th> <th>Dead</th> <th>SR (%)</th> <th>Diameter (cm)</th> <th>Height (cm)</th> </tr> </thead> <tbody> <tr> <td>Madabeno</td> <td>810</td> <td>314</td> <td>1,124</td> <td>72.1</td> <td>12</td> <td>90</td> </tr> <tr> <td>Talitu</td> <td>400</td> <td>226</td> <td>626</td> <td>63.9</td> <td>8</td> <td>66</td> </tr> <tr> <td>Overall</td> <td>1,210</td> <td>540</td> <td>1,750</td> <td>69.1</td> <td>11</td> <td>87</td> </tr> </tbody> </table> <p><i>Source: JICA Project Team (2014)</i></p> <p>◆ Out of 1,750 seedlings surveyed in the both sucos, 1,210 seedlings were confirmed as alive. The survival rate of plantations in Talitu was rather lower (64 % on average) than that in Madabeno (72 % on average). Particularly, the performance in Aldeias Fatukhun and Talitu in Suco Talitu was significantly low among the aldeias of both sucos. Like in the case of the survey made in 2014, the same causes were considered as possible reasons for the lower survival rate in the two aldeias, namely i) improper hole digging, which resulted in planting seedlings in small pits, and ii) poor soil fertility or insufficient application of compost to planting pits, which resulted in inadequate growth of seedlings after planting.</p> <p>◆ The counterparts prepared a report on the survival surveys and submitted them to NDFWM in July 2015 with the assistance of the JICA Project Team.</p>	Suco	Total No. of Seedlings sampled	Survival condition			Growth conditions		Alive	Dead	SR (%)	Diameter (cm)	Height (cm)	Madabeno	810	314	1,124	72.1	12	90	Talitu	400	226	626	63.9	8	66	Overall	1,210	540	1,750	69.1	11	87
Suco	Total No. of Seedlings sampled	Survival condition				Growth conditions																														
		Alive	Dead	SR (%)	Diameter (cm)	Height (cm)																														
Madabeno	810	314	1,124	72.1	12	90																														
Talitu	400	226	626	63.9	8	66																														
Overall	1,210	540	1,750	69.1	11	87																														

Source: JICA Project Team (2014)

The reports prepared and submitted by the counterparts are shown in **Appendix-4.5** stored in the CD attached to this report.

(3) Management and Monitoring of the Project

The JICA and MAF Project Teams have had meetings on a weekly basis over the course of the Project to share and discuss: i) progress of the Project, ii) activities planned, and iii)

issues and concerns to be addressed, so that the counterparts could go through and learn the process of project management. It is noted that the members of the MAF Project Team had held the meetings even during the period when no JICA expert worked in Dili.



Weekly Meeting with the Counterparts

From February/March 2012, the NGOs who had worked for implementation of the micro programs in the target villages have also attended the meetings to share and discuss issues and concerns found in the course of implementation of the micro programs. In the meetings, the NGOs reported the progress of the micro programs in a week. In response to their reports, the counterparts gave the suggestions and advice based on the findings from the field monitoring. Through such periodic meetings, the counterparts have fostered their sense of ownership of the Project and learned how to monitor and supervise the NGO's works.

4.2.3 Training of Trainers (ToT) type Training

In order to enable the counterparts to be trainers/resource persons for the CB-NRM mechanism and its associated techniques in the future, the JICA Project Team has arranged and organized the following ToT-type training courses for the counterparts.

- a. PRA at Suco Fahisoi (one of the potential sucos for future expansion)
- b. Seminar on CB-NRM and the JICA CB-NRM Project
- c. Seminar on work plans of the micro programs
- d. Seminar on PLUP
- e. Study tour to Sucos Talitu and Madabeno
- f. Seminar on draft CB-NRM technical manuals
- g. Study tour to Suco Tohumeta

The results of the respective activities are summarized below.

Summary of the Results of TOT Activities

a. Training on PRA

Activities	Date	Participants	Outline of the Activities
Technical seminar and preparation of materials	Jan. 22, 2013	12 members	◆ The counterparts learned the outline of PRA and procedures for key PRA tools in the technical seminar held on Jan. 22, 2013. They also prepared materials (flipcharts) used in PRA sessions in the same seminar.
Field practices	Jan. 23 & 24, 2013	15 members each	◆ They conducted the following PRA sessions at Suco Fahisoi, which was selected as a venue for this purpose. <ul style="list-style-type: none"> - Resource mapping - Trend analysis - Seasonal calendar - Institutional venn diagram ◆ In the field, they shared the responsibilities for the conducts of the PRA sessions by dividing them into four (4) groups. Every one of them played a certain role in the sessions, such as facilitator, co-facilitator, note takers, etc.
Preparation of a PRA report	Feb. and Mar. 2013	15 members	◆ The counterparts prepared a PRA report based on the results of the PRA sessions with the assistance of the JICA Project Team. Each group assessed the data collected in the respective sessions and developed the parts of the report. The JICA Project Team compiled all the parts into a report and submitted a report on PRA to NDF in March 2013.
Remarks	◆ Appendix-4.6 stated in the CD attached to this report shows the results of the training courses with the report prepared by the counterparts.		



b. Seminar on CB-NRM and the JICA Project

Activities	Date	Participants	Outline of the Activities
Seminar at NDF	Jan. 29, 2013	n.a.	<p>◆ The JICA and MAF Project Teams jointly held a seminar on CB-NRM and the JICA Project inviting district forest officers of all the districts. The seminar was composed of four (4) sessions as shown below.</p> <p>Session 1: Basic concepts of CB-NRM</p> <p>Session 2: Introduction of participatory land use planning and its effectiveness</p> <p>Session 3: Results of training on forest management and CB-NRM in Japan</p> <p>Session 4: Introduction of the JICA CB-NRM Project and micro programs being implemented by the Project</p> <p>◆ Four (4) counterparts, three (3) NDF officers and one (1) district forest officer in Aileu made the presentations in the sessions.</p>
Discussions with the participants from other districts	ditto	-	<p>◆ In the seminar, one (1) session was allocated for discussions on CB-NRM between the participants from other districts and the counterparts. Some highlights of the discussions are summarized below.</p> <p>a. In response to the participants' inquiry about the possibility of the continuation of CB-NRM activities after the end of the JICA Project, the counterparts replied that NDF/MAF planned to take over the responsibility for the implementation and expansion of CB-NRM.</p> <p>b. The participants questioned about the effectiveness of the village regulations, as tara bandu was usually effective only in one year in many cases. The counterparts introduced the cases of Suco Faturasa where the village regulations had been effective since 2008 and drastically reduced the incidence of forest fire and illegal cutting in the village.</p> <p>c. As a reply to the comment on the possibility of the financial and administrative support from top management of MAF for continuation of CB-NRM, the counterparts suggested that it might be possible for NDF to get future MAF support if a certain policy and legal framework for CB-NRM would be in place.</p>



c. Seminar on Work Plans of the Micro Programs

Activities	Date	Participants	Outline of the Activities
Seminar at NDF	Jun. 08, 2013	13 members	<p>◆ The JICA Project Team arranged a small workshop where the core counterparts (NDF Officers, District Forestry Officer, and Forest Guards) made presentations of the work plans of the micro programs to the other eight (8) counterparts, so that the core counterparts could: i) deepen the understanding of the work plans of the micro programs and ii) improve their presentation skills. Five (5) counterparts made the presentations in the workshop.</p>




d. Seminars on PLUP

Activities	Date	Participants	Outline of the Activities						
Seminars at the District MAF Offices in Liquica, Ermera, and Manatutu	Jul. and Oct. 2013	10 members	<p>◆ The JICA and MAF Project Team jointly held seminars on PLUP at the District MAF Offices in Ermera, Manatutu, and Liquica, respectively, with an aim to i) provide the counterparts an opportunity to explain the process of PLUP to other MAF officers and ii) familiarize key district officers in the said districts with the process and results of PLUP. The counterparts divided themselves into three (3) groups to share the responsibility among the members. The following table shows the dates of the seminars and the number of participants from the district offices.</p> <table border="1"> <thead> <tr> <th>District Office</th> <th>Date</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td>MAF District in Liquica</td> <td>Jul. 29, 2013</td> <td>25 persons</td> </tr> </tbody> </table>	District Office	Date	No. of participants	MAF District in Liquica	Jul. 29, 2013	25 persons
District Office	Date	No. of participants							
MAF District in Liquica	Jul. 29, 2013	25 persons							



Activities	Date	Participants	Outline of the Activities						
			<table border="1"> <tr> <td>MAF District in Manatutu</td> <td>Oct.01, 2013</td> <td>27 persons</td> </tr> <tr> <td>MAF District in Ermera</td> <td>Oct.11, 2013</td> <td>33 persons</td> </tr> </table> <p>Source: JICA Project Team (2013)</p> <ul style="list-style-type: none"> ◆ The seminars were effective in only enhancing a sense of ownership among the counterparts, as they needed to reply a number of inquiries and clarifications given by the participants in the seminars. At the same time, the semina was also a good opportunity to introduce PLUP and CB-NRM to key district officers, such as District Forest Officers, Coordinators of Extension Officers, Exstension Officers, and Forest Guards, in the MAF District Offices relevant to the Lacro and Comoro river basins. 	MAF District in Manatutu	Oct.01, 2013	27 persons	MAF District in Ermera	Oct.11, 2013	33 persons
MAF District in Manatutu	Oct.01, 2013	27 persons							
MAF District in Ermera	Oct.11, 2013	33 persons							
Preparation of a report on the seminar	Nov. 2013	Several members	<ul style="list-style-type: none"> ◆ The members of the MAF Project Team who participated in the seminars prepared a report on the seminars and submitted the same to NDF on December 2, 2013. 						

e. Study Tour to Sucos Talitu and Madabeno

Activities	Date	Participants	Outline of the Activities																																
Study tour	Nov. 13, 2013	10 members	<ul style="list-style-type: none"> ◆ The JICA and MAF Project Teams jointly organized a study tour for the district officers in Ermera, Liquica and Manatuto. The counterparts were responsible for introduction of the project activities and guiding the participants in the field. ◆ A total of 10 district officers who took part in the tour to Sucos Talitu and Madabeno. They observed village leaders discuss issues/concerns referring the village regulations in the monthly monitoring meeting at Suco Madabeno, and visited nureries and demonstration plots developed by the beneficiaries' groups in both sucos. The counterparts guided the participants and gave explanations with the assistance of the NGO over the course of the tour. 																																
Evaluation of the study tour by the participants	ditto	-	<ul style="list-style-type: none"> ◆ The participants in the study tour were requested to evaluate the study tour and the performance of the counterparts. The results of the evaluation are summarized below. <table border="1"> <thead> <tr> <th>Evaluation items</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>Explanation of resource persons</td> <td>4.5</td> </tr> <tr> <td>Time management by resource persons</td> <td>4.0</td> </tr> <tr> <td>Contents of the tour</td> <td>4.1</td> </tr> <tr> <td>Relevance of the techniques to the tasks</td> <td>4.5</td> </tr> <tr> <td>Overall evaluation of the tour</td> <td>4.2</td> </tr> </tbody> </table> <p>Source: JICA Project Team (2013)</p> <ul style="list-style-type: none"> ◆ As shown in the table above, the participants highly appreciated the study tour in general. In particular, the explanations made by the counterparts were evaluated high. They also highly appreciated the CB-NRM techniques that they observed in the tour as shown below. <table border="1"> <thead> <tr> <th>Evaluation items</th> <th>PLUP</th> <th>Community nurseries</th> <th>Sloping agriculture</th> <th>Overall</th> </tr> </thead> <tbody> <tr> <td>Effectiveness</td> <td>4.4</td> <td>4.4</td> <td>4.7</td> <td>4.5</td> </tr> <tr> <td>Applicability</td> <td>4.3</td> <td>4.4</td> <td>4.3</td> <td>4.4</td> </tr> <tr> <td>Possibility of introduction</td> <td>4.4</td> <td>4.3</td> <td>4.1</td> <td>4.0</td> </tr> </tbody> </table> <p>Source: JICA Project Team (2013)</p> <ul style="list-style-type: none"> ◆ The participants considered that the CB-NRM approaches/activities would be effective in sustainable forest management and applicable to their districts/sub-districts. 	Evaluation items	Average	Explanation of resource persons	4.5	Time management by resource persons	4.0	Contents of the tour	4.1	Relevance of the techniques to the tasks	4.5	Overall evaluation of the tour	4.2	Evaluation items	PLUP	Community nurseries	Sloping agriculture	Overall	Effectiveness	4.4	4.4	4.7	4.5	Applicability	4.3	4.4	4.3	4.4	Possibility of introduction	4.4	4.3	4.1	4.0
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Applicability	4.3	4.4	4.3	4.4																															
Possibility of introduction	4.4	4.3	4.1	4.0																															
Preparation of a report on the seminar	Nov. and Dec. 2013	Several members	<ul style="list-style-type: none"> ◆ The members of the MAF Project Team who participated in the study tour prepared a report on the tour and submitted the same to NDF on December 17, 2013. 																																

f. Seminars on the draft CB-NRM technical manuals

Activities	Date	Participants	Outline of the Activities
Seminars at the MAF district offices in the four districts concerned	Jul. and Aug. 2014	10 members	<ul style="list-style-type: none"> ◆ The JICA and MAF Project Teams jointly held one-day seminars on the draft CB-NRM technical manuals at the MAF district offices concerned with the Lacleo and Comoro river basins, namely Aileu, Ermera, Liquica, and Manatutu on the following dates: <ul style="list-style-type: none"> - Seminar at Ermera on July 23, 2014 - Seminar at Manatutu on July 30, 2014 - Seminar at Aileu on August 1, 2014 - Seminar at Liquica on August 1, 2014 ◆ The counterparts divided themselves into two (2) groups and decided that each group should be responsible for two (2) seminars. They also shared the responsibilities for the presentations of the seminars at the respective district offices among the members. ◆ A total of 118 MAF District Officers, comprised of District Forest Officers, Sub-district Extension Coordinators and Extension Officers in the respective offices, attended the seminars.
Preparation of a report on the seminar	Aug. and Sep. 2013	Several members	<ul style="list-style-type: none"> ◆ After the seminars, two (2) of the counterparts, leaders of the groups, made reports on the seminars, respectively, with the assistance of the JICA Project Team and submitted them to NDFWM in September 2014.



g. Study Tour to Suco Tohumeta

Activities	Date	Participants	Outline of the Activities
Study tour	Nov. 13, 2014	11 members	<ul style="list-style-type: none"> ◆ In response to the requests from the participants in the seminars on the draft CB-NRM technical manuals, the JICA and MAF Project Teams arranged and held a study tour to Suco Tohumeta with the participation of 22 MAF district officers from Liquica and Ermera. ◆ The counterparts (11 members) guided the participants and made explanations about the project activities in the course of the tour.



Source: JICA Project Team (2015)

4.3 Annual Feedback and Planning Seminars by Counterparts

In order to help the counterparts assess the effectiveness of the training courses held by the JICA Project Team and revise the training curricula to make them more effective, the JICA Project Team has held feedback seminars with the participation of the counterparts every year over the course of the Project. In the same seminars, the counterparts were also assisted by the JICA Project Team in the preparation of annual work and budget plans for their activities for the next two (2) fiscal years, so that they could submit the plans to their superior bodies to secure operation budgets for their activities. The following table shows the dates of the seminars and the number of the participants.

Feedback Seminars for the Counterparts

Year	Target Counterparts <1	Date of seminar	Venue of seminar	No. of participants
2012	NDFOs, DFO, and FG	Jan. 31, 2012	NDF in Dili	8 persons
	DOs, EC/SECs, EOs	Feb. 6, 2012	MAF District Office in Aileu	6 persons
2013	NDFOs, DFO, and FG	Nov. 19 & 20, 2012	NDF in Dili	11 members in total
	DOs, EC/SECs, EOs	Dec. 3, 2014 & Feb. 11, 2013	MAF District Office in Aileu	13 members in total
2014	NDFOs, DFO, and FG	Jan. 23, 24, & 31, 2014	NDF in Dili	20 members in total
	DOs, EC/SECs, EOs	Feb. 04, 05, & 17, 2014	MAF District Office in Aileu	27 members in total
2015	NDFOs, DFO, and FG	Jan. 29 & Feb. 5, 2015	NDF in Dili	9 members in total
	DOs, EC/SECs, EOs	Feb. 9 & 15, 2015	MAF District Office in Aileu	9 members in total

Source: JICA Project Team (2015)

(1) Objective of the Seminar

The main objectives of the feedback seminar were to ensure that the capacity development plan as well as the training curricula associated with the plan could enhance the capacities of the counterparts effectively and efficiently and to enable the counterparts to develop an annual work and budget plan for their activities based on the review of their performance in the previous year. Specifically, the seminar aimed to:

- a. help the counterparts review the training courses that they have received in the previous year;
- b. help the counterparts assess whether or not they had learned the techniques through the training courses;
- c. help the counterparts identify training courses that they still needed to have;
- d. help the counterparts to reconfirm if they could achieve the goals and targets set by the capacity development plan;
- e. help the counterparts identify the necessary field activities by themselves based on the situations of the target sucos; and
- f. help the counterparts develop draft annual work plans for their activities with budget estimation for the following physical years.

(2) Topics discussed in the seminar

In general, the participants discussed three subjects: i) training courses in the previous year; ii) training curricula in the following years; and iii) work plans for the counterparts for the following two (2) physical years. The agenda of the seminars are shown below.

Session 1: Introduction of the workshop with the framework of the capacity development plan

- Framework of the capacity development plan
- Goals and milestones of the capacity development plans for the counterparts
- Training curricula for the respective counterparts

Session 2: Review of the training courses

- Major topics discussed in the training courses
- Participants in the respective training courses
- Level of understanding
- Gaps to be filled or aspects/topics to be followed up
- Any improvements needed to improve training courses
- Necessary intervention or arrangement to be considered

Session 3: Review of the training curriculum for the next two (2) physical years

- Training courses planned for the next two (2) physical years
- Topics that still need to be addressed
- Training curriculum for the respective counterparts in the next two (2) years



Feedback and Planning Seminar

- Session 4: Preparation of annual work plans for the next two (2) fysical years
- Identification of the counterparts who will participate in the training courses
 - Preparation of annual work plans

(3) Results of the Seminars

Appendix-4.7 stored in the CD attached to this report shows all the results of the seminars held from 2012 to 2015 with the work and budget plans preped by the counterparts. The work and budget plans were also submiitted to NDF and MAF District Office in Aileu with an aim to help the counterparts get a certain financial assistance from the repspective mother bodies. In fact, NDFWM allocated some budgets for the activities of the counterparts in the forestry setor (i.e., NDFWM officers, District Forest Officer, and Forest Guards) for FY 2015. Through the discussions in the feedback seminars, the counterparts were able to:

- i) review and revise the training curriculum for the respective types of counterparts;
- ii) assess their own level of understanding of the relevant topics handled by the technical seminars or observed in the field;
- iii) identify gaps between the current capacity level and the goal of the capcity development plan;
- iv) learn how to estimate the budgets for activities planned for an annual work plan; and
- iv) learn how to make a proposal with a work and budget plan.

4.4 Preparation of Technical Manuals on CB-NRM

Over the course of the Project, the JICA Project Team has prepared the following technical materials to disseminate techniques relating to CB-NRM among relevant stakeholders, such as MAF extension officers, forest guards, and other field practitioners working in the agriculture and forestry sectors.

- i) CB-NRM Information Kit
- ii) CB-NRM Technical Manuals
- iii) Manual for Formation of a Watershed Management Council
- iv) Quick References of the CB-NRM Technical Manuals

4.4.1 CB-NRM Information Kit

The CB-NRM Information Kit is a technical reference book that the JICA Project Team developed by compiling existing techniques and practices useful for sustainable natural resource management and applicable to local settings in Timor-Leste, especially in the Lacro and Comoro river basins. A total of 44 techniques/practices are put in the document, which are grouped into seven (7) categories as shwon below.

Techniques/Practices compiled into the CB-NRM Information Kit

Category	Techniques/practices introduced
1. Community Participation	1.1 Public Awareness Campaign 1.2 Participatory Assessment 1.3 Group Organization 1.4 Participatory Planning, Monitoring, and Evaluation 1.5 Farmer Field School (FFS)/Hands-on Training Course
2. Participatory Land	2.1 Future Land Use Planning

Category	Techniques/practices introduced
Use Planning (PLUP)	2.2 Formation of Village Regulations with a Tara Bandu Ceremony 2.3 Monthly Monitoring of Implementation and Enforcement of the Village Regulations
3. Reforestation	3.1 Nursery Establishment 3.2 Nursery Operations and Seedling Production 3.3 Tree Planting 3.4 Tending of Young Stands 3.5 Standard Desgns of i) Home Garden and ii) Coffee Plantation 3.6 Standard Desgns of iii) Timber Plantation and iv) Regenerated Forest in Degraded Land
4. Agriculture and Livestock Management	4.1 Water Saving Cultivation Method 4.2 Application of Basal Fertilizer 4.3 Production and Application of Liquid Fertilizer 4.4 Germination Technique 4.5 Nurerly Making 4.6 Vegetative/Asexual Propagation Techniques 4.7 Crop Rotation and Mix Planting 4.8 Quality Seed Multiplication 4.9 Maize Seed Preservation 4.10 Introduction of Live Fence 4.11 Development of Forage/Feed Bank 4.12 Introduction of Semi-intensive Animal Husbandry
5. Sloping Agriculture and Agroforestry	5.1 Delineation of Contour Lines (Making and Use of an A-frame) 5.2 Relay Plannting and Cover Cropping /Mulching 5.3 Contour Composting/Canalling 5.4 Bench Terracing 5.5 Contour Rock Wall 5.6 Alley Cropping/SALT Techniques 5.7 Multistoried Cropping
6. Income Generating / Livelihood Development	6.1 Honey Production 6.2 Sweet Potato Chips Making 6.3 Dried Sweet Potato Making 6.4 Herb Tea Making 6.5 Salted Vegetables 6.6 Tais Making 6.7 Sewing 6.8 Simple Rocket Stove
7. Soil and Water Conservation	7.1 Field Assessment of Gully Erosion 7.2 Brushwood Check Dam 7.3 Loose Stone Check Dame

Source: JICA Project Team (2015)

As all the techniques/practices listed above has already been put into trial in Timor-Leste and proved effective for forest management, improvement of agricultural production, and/or livelihood development, it is expected that the document could be of help to field practitioners not only of MAF but also MAF Development Partners, especially NGOs working in the forestry and agriculture setors, as a technical reference.

The JICA Project Team made the CB-NRM Information Kit in both languages, Tetun and English, as shown in **Appendix-4.8** stored in the CD attached to this report. In November 2015, a total of 47 copies of the Tetun version of the Information Kit were submitted to NDFWM and MAF together with 27 copies of the English version of the same.

4.4.2 CB-NRM Technical Manuals

The JICA Project Team developed three (3) volumes of technical manuals based on the results of the micro programs implemented in the target villages.

Vol. 1: Seedling Production and Tree Planting

Vol. 2: Sustainable Upland Farming

Vol. 3: Income Generting/Livelihood Development



CB-NRM Technical Manuals

The manuals are aimed at field practitioners and planners in the forestry and agriculture sectors in Timor-Leste. They are expected to be used as guidelines for field extension services to local communities in the field and also referenes for making a down-to-earth work plan or proposal for their services.

The manuals introduce the key approaches to effective extension and a whole set of techniques/skills which have been demonstrated in the course of the micro programs. The following table shows the techuniques/skills covered by the manuals.

Techniques/Skills introuced in the CB-NRM Technical Manuals

Volume of the manuals	Techniques/Skills introduced in the Manuals
Vol. 1: Seedling Production and Tree Planting	<p><u>Techniques for Nursery Establishment and Operations</u></p> <ol style="list-style-type: none"> 1) Nursery Establishment 2) Seed Preparation and Sowing Seeds 3) Preparation of Seedling Pots 4) Maintenance of Seedlings 5) Hardening-off <p><u>Techniques for Tree Planting</u></p> <ol style="list-style-type: none"> 6) Production of Compost 7) Determination of Layout of Plantations 8) Delineation of Contour Lines and Sticking of Stakes 9) Planting 10) Tending
Vol. 2: Sustainable Upland Farming	<ol style="list-style-type: none"> 1) Production of Compost 2) Delineation of Contour Lines 3) Application of Contour Composting (Contour Canalling) 4) Plowing with Compost Application 5) Selection of Seeds/Planting Materials and Identification of Plots for the Improved Varieties of Maize 6) Sowing / Planting 7) Preparation of Liquid Fertilizer 8) Weeding, Mulching, and Application of Liquid Fertilizer 9) Post-harvesting and Storage of Seeds of Maize
Vol. 3: Inome Generating / Livelihood Development	<p><u>Assessment of Resources in the Locality and Selection of Potential IG/LD Activities</u></p> <ol style="list-style-type: none"> 1) Resource Inventory 2) Selection of Potential IG/LD Activities <p><u>Food Processing Products</u></p> <ol style="list-style-type: none"> 3) Drying Method: Herbal Tea Production 4) Drying Method: Dried Sweet Potato Production 5) Soaking Method: Salted Vegetable Production (Long Period Soaking) 6) Soaking Method: Pickled Vegetable Production (Short Period Soaking) 7) Frying Method: Cassava Chips Production <p><u>Other IG/LD Activity</u></p> <ol style="list-style-type: none"> 8) Sewing Techniques <p><u>Marketing of Products and Operations and Management of IG/LD Activities</u></p> <ol style="list-style-type: none"> 9) Promotion of Products 10) Bookkeeping 11) Micro Credit using Earnings from Operations of IG/LD Activities

Source: JICA Project Team (2015)

The JICA Project Team submitted a total of 47 sets of the Tetun version of the CB-NRM Technical Manuals with 27 sets of the English version to NDFWM/MAF in November 2015. CB-NRM Technical Manuals submitted to NDFWM/MAF are shown in **Appendix-4.9** stored in the CD attached to this report.

4.4.3 Manual for Formation of a Watershed Management Council

In September and October 2015, the JICA Project Team prepared a manual for formation of a watershed management council referring the process and procedures taken for the creation of the Noru watershed management council under Outut 1. The manual also describes the process of making a watershed management plan of sub-watersheds located in the Laclo and Comoro river basins. The contents of the manual are summarized below.

Contents of the Manual for Formation of a Watershed Management Council

Chapters	Sections
Chapter 1: Introduction	1.1 Background 1.2 Objectives of the Manual 1.3 Coverage/Targets of the Manual 1.4 Composition of the Manual
Chapter 2: Rationale for Formation of the Watershed Management Council	2.1 Rationale 2.2 Relevance to the Forest Sector Policy 2.3 Expected Outcomes from the Formation
Chapter 3: Process of and Procedures for Formation of the Watershed Management Council	3.1 Overall Process 3.2 Procedures for Formation of the Watershed Management Council Step 1: Consultation with Local Leaders Step 2: Meeting with the Noru Watershed Management Council Step 3: Study Tour to the JICA CB-NRM Project Village Step 4: Stakeholder Analysis and Selection of Members Step 5: Determination of Vision Statements, Missions, Functions, and Objectives of a Watershed Management Council Step 6: Determination of By-laws of the Watershed Management Council Step 7: Finalization of a Resolution of the Watershed Management Council Step 8: Regular Meetings of the Watershed Management Council
Chapter 4: Process of Development of a Watershed Management Plan (only for Watersheds within the Laclo and Comoro River Basins)	4.1 Overall Process 4.2 Procedures for Development of a Watershed Management Plan Step 1: Introduction of the Process and Objective of a Watershed Management Plan Step 2: Development of a Draft Watershed Management Plan Step 3: Review and Revision of the Draft Management Plan Step 4: Preparation and Finalization of a Resolution on the Watershed Management Plan
Chapter 5: Framework for Implementation	5.1 Organizations and Persons responsible for the Works 5.2 Necessary Supports 5.3 Standard Implementation Schedule

Source: JICA Project Team (2015)

The manual aims to guide field officers and planners in MAF, especially NDFWM, on how to i) form a collaboration platform on a sub-watershed scale in coordination with local leaders at the sub-municipal and village levels and ii) make the platform operational as a council for watershed management. Likewise, a total of 47 copies of the Tetun version of the manual with 27 copies of the English version of the same were submitted to NDFWM/MAF in November 2015. The manual submitted to NDFWM/MAF is shown in **Appendix-4.10** stored in the CD attached to this report.



Manual for Formation of a Watershed Management Council

4.4.4 Quick Reference of the CB-NRM Technical Manuals

Although the CB-NRM Technical Manuals give details of the procedures for introduction of key techniques relating to the micro programs, they might not necessarily be suitable for the use in the field since they are A-4-sized books bound with round plastic spines. In order to provide a handy tool for MAF field officers as well as NGO workers together with the Technical Manual, the JICA Project Team developed an A-5-sized booklet named “Quick Reference of the CB-NRM Technical Manuals” in December 2015. The booklet introduces the key techniques extracted from the technical manuals so that the field officers could use and refer it in the field while providing technical training/extension services. About 200 copies of the Tetun version of the quick reference with about 50 copies of the English version were submitted to NDFWM/MAF in December 2015 for distribution to the field officers of MAF, especially those working in the MAF District Offices concerned with the Laclo and Comoro river basins.



Quick Reference of the CB-NRM Technical Manuals

The quick reference of the CB-NRM Technical Manuals submitted to NDFWM/MAF is shown in **Appendix-4.11** stored in the CD attached to this report, and its outline is summarized below.

Contents of the Manual for Formation of a Watershed Management Council

Part	Sections
Seedling Production and Tree Planting	1-1 Nursery Establishment 1-2 Seed Preparation and Sowing Seeds 1-3 Preparation of Seedling Pots 1-4 Maintenance of Seedlings 1-5 Planting (including layouts of plantation) and Tending
Sustainable Upland Farming	2-1 Compost Making and Maintenance 2-2 Delineation of Contour Lines 2-3 Application of Contour Composting Terraces 2-4 Cultivation with Compost Application 2-5 Making and Application of Liquid Fertilizer
Income Generating / Livelihood Development	3-1 Identification of Potential IG/LD Activities 3-2 Drying Method: Herbal Tea Production 3-3 Soaking Method: Salted Vegetable Production 3-4 Frying Method: Cassava Chips Production 3-5 Home Manufacturing Option: Sewing

Source: JICA Project Team (2015)

Chapter 5 Results of the Activities under Output 3

5.1 Creation of a Taskforce in NDF

In order to facilitate the discussions with NDF on a new policy document for expansion of CB-NRM in the target river basins, the JICA and MAF Project Teams prepared a joint proposal to set up a taskforce/working team within NDF after a series of discussions in June and July 2011 as shown in **Appendix-5.1** in the CD attached to this report. In response to the proposal, NDF selected a total of 16 members composed 15 NDF officers and one (1) MAF advisor as members of the taskforce/working team as listed below.

Members and Structure of the Working Team

Position	Name	Current Position
Chair Person	Fernando Araujo	Project Manager of the Project
Advisor	Mario Nunes	Advisor for Minister
Co-Chair Person	Yoji Mizuguchi	Chief Advisor of the Project
Members	João Antalmo	Head of Dept for Protection and Forest Management Resources
	Luis Mendes	Head of Dept for Planning and Finance
	Manuel da Cruz	Head of Dept for Protection
	João Dasimano	Head of Mangrove Section, Dept for Protection
	Vitor Ximenes	Chief of Section for Circulation and Fiscalization Forest Product, Dept for Forestry Production
	Jeremias Jose Cristovão	Chief of Section for Forest Inventory, Department for Protection
	Adelino de Rosario	Chief of Section for NTFP, Department for Protection
	Higino T.C Barros	Chief of Section for Nacional Tourism Management, Dept for National Parks
	Pascal de Carimo	Staff of Dept for Planning and Finance
	Americo da Silva	Staff of Dept for Planning and Finance
	Egas Brites da Silva	Technical Professional Assistant Dept for Administration
Secretariat	Vildito Ximenes	Project Officer/Staff of Dept for Soil and Water Conservation
	Mario Alves	Project Officer/Staff of Dept for Protection
	Marcelino Perreira	Project Officer/Staff of Dept for Soil and Water Conservation
	Yoshioka Yayoi	Co-Chief Advisor/Community-Based Natural Resource Management
	Hiromi Yasu	Reforestation
	Haruko Chikaraishi	Project Coordinator/Assistance in Reforestation/Rural Development

Source: JICA Project Team (2011)



5.2 Discussions with NDF Taskforce/Working Team on Policy Recommendations and Operational Procedures for Promotion of CB-NRM

The JICA Project Team and the NDF taskforce/working team have had the following meetings to develop a new policy document for expansion of CB-NRM in the target river basins over the course of the Project.



- a. Kick-off meeting
- b. Meeting on the work plan of the working team
- c. Situation and stakeholder analyses
- d. Assessment of the forest sector policy and forest management bill
- e. Activities of the JICA CB-NRM Project and basic concepts of CB-NRM
- f. Organizational structure and roles/responsibilities of key players in the promotion of CB-NRM
- g. Necessary interventions and arrangements for promotion of CB-NRM
- h. Draft policy recommendations for expansion of CB-NRM
- i. Draft ministerial order for promotion of CB-NRM

Some highlights of the discussions made in the meetings are summarized below.

Meetings with the NDF Taskforce / Working Team

Meeting	Date	Participants	Highlights of discussions										
1 st meeting	Aug. 1, 2011	13 members	<ul style="list-style-type: none"> ◆ Project Manager and Chief Advisor explained to the members of the taskforce/working the outline of the Project, objectives of the taskforce/working team, role and responsibilities of the members, and a tentative schedule of the team's activities. ◆ Having had clarification of the activities on policy making under the Project and exchanged opinions and views on CB-NRM, the members agreed on the importance of CB-NRM and appreciated the process proposed by the Project of making a new policy document on CB-NRM, in which the taskforce/working team could take an initiative in making the document from the beginning. 										
2 nd meeting	Nov. 29, 2011	9 members	<ul style="list-style-type: none"> ◆ The JICA Project Team introduced the overall work schedule of the taskforce/working team and activities planned in FY 2012. The members of the taskforce/working team agreed with the same in the meeting. 										
3 rd meeting	Aug. 7 and 10, 2012	8 and 7 members	<ul style="list-style-type: none"> ◆ The members of the taskforce/working team discussed the following topics with the JICA Project Team. <ol style="list-style-type: none"> a. Current situation of the forestry sector b. Major stakeholders in the sector and their roles c. Progress and status of the forest sector policy d. Major constraints and hindrance to the achievement of the goal/objectives of the forest sector policy e. Action to be taken for achievement of the goal/objectives of the policy ◆ The results of the discussions are summarized below. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Topics</th> <th style="text-align: left;">Results of Discussions</th> </tr> </thead> <tbody> <tr> <td>Stakeholder Analysis</td> <td>Eight (8) direct stakeholders and 13 indirect stakeholders were identified.</td> </tr> <tr> <td>Situation Analysis</td> <td>The members judged that forest resources had been degraded in terms of both quality and quantity. The major causes of forest degradation that the members identified are: i) tree cutting; ii) forest fires; iii) shifting cultivation; and iv) over exploitation caused by local communities.</td> </tr> <tr> <td>Analysis of the forest sector policy</td> <td>The members judged that MAF/NDF might not be able to achieve the policy objectives of the forest sector policy, except "institutional development." The major hindrances to the achievement were: i) lack of forest law/regulations; ii) lack of budget; iii) lack of capacity; and iv) lack of coordination with relevant stakeholders.</td> </tr> <tr> <td>Analysis of the necessary interventions for achievement of the forest sector policy</td> <td> A number of interventions were identified and proposed by the members as listed below. <ul style="list-style-type: none"> ❖ Recruitment of community forest guard and new staff ❖ Demarcation of important forest areas ❖ Policy support from higher management of MAF ❖ Approval and enactment of Forest Management Bill ❖ Introduction of PLUP in important forest areas ❖ Introduction of specific regulation on the use of chain saw ❖ Awareness campaign to disseminate information to communities ❖ Improvement of livelihoods of communities in the river basins ❖ Conduct of a preliminary survey to collect data of the critical watersheds ❖ Conservation of indigenous species ❖ Development of a watershed management plan ❖ Development of a specific law for watershed management ❖ Introduction of soil conservation measures ❖ Introduction of slope protection measures ❖ Introduction of commercial timber trees ❖ Introduction of trees species which are effective in soil conservation and suitable for timber production at the same time ❖ Improvement of knowledge of NDF and MAF District staff ❖ Promotion of commercial timber trees ❖ Preparation of nurseries for commercial trees ❖ Improvement of communities' knowledge on tree planting ❖ Provision of scholarship for potential staff to upgrade their educational background ❖ Development of a network with relevant institutions ❖ Allocation of experienced and qualified staff </td> </tr> </tbody> </table> 	Topics	Results of Discussions	Stakeholder Analysis	Eight (8) direct stakeholders and 13 indirect stakeholders were identified.	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Meeting	Date	Participants	Highlights of discussions
			<p>Source: JICA Project Team (2012)</p> <ul style="list-style-type: none"> ◆ Some of the proposed interventions were closely related to the activities of the JICA CB-NRM Project. This result suggested that the new policy document on CB-NRM could contribute to the achievement of the goal and objectives of the forest sector policy.
4 th meeting	Jan. 15, 2013	13 members	<ul style="list-style-type: none"> ◆ The members of the taskforce/working team discussed how the CB-NRM approaches, specifically those introduced by the JICA CB-NRM Project, could contribute to the implementation of the forest sector policy and the forest management bill. ◆ Through the discussions, the members were able to confirm that i) promotion of CB-NRM could contribute to the achievement of the objectives of the forest sector policy and ii) PLUP that the JICA CB-NRM Project has initiated/demonstrated in the target villages would be the key part in the process of acquisition of Community Forest Management Agreement (CFMA) defined in the forest management bill. ◆ The members further discussed a mechanism to promote CB-NRM at the suco level, and agreed on the following framework as a draft overall framework of the mechanism. <div> </div> <div> <p>Draft Framework of a Mechanism to Promote CB-NRM on a Village Level</p> <p>Source: JICA Project Team (2013)</p> </div>
5 th meeting	Jun. 25, 2013	9 members	<ul style="list-style-type: none"> ◆ The members of the taskforce/working team first reviewed the approaches and activities taken by the JICA CB-NRM Project and then discussed the effective process and scope/framework of CB-NRM at the suco level. ◆ The members agreed that the following process proposed by the Project could be adopted in the target river basins to establish a CB-NRM mechanism at the village level. <div> </div> <div> </div> <ul style="list-style-type: none"> ◆ The members further discussed and confirmed that the basic concepts of CB-NRM should be as follows.

Meeting	Date	Participants	Highlights of discussions												
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7 th meeting	Aug. 6, 2014	11 members	<ul style="list-style-type: none"> ◆ Having had the briefing about the draft policy recommendations for expansion of the CB-NRM mechanism by the JICA Project Team, the members discussed the draft policy recommendations prepared by the Project Team. ◆ Some crucial comments and suggestions given by the members are summarized below. <ul style="list-style-type: none"> a. Actions proposed in the draft policy recommendations are rationale for promotion of CB-NRM and therefore acceptable. b. The establishment of the new department for CB-NRM, which is one of the recommendations in the document, is not necessarily needed since the newly issued ministerial decree indicates that a new department under the National Directorate of Forestry and Watershed Management, i.e., Department of Reforestation and Community and Urban Forestry, might have functions similar to those of the proposed department. c. The following points should be taken into account in the review of the policy recommendations: <ul style="list-style-type: none"> - Forestry extension worker (formally called "PLP (Field Officer for Greening)") should be recruited as field officers to promote the CB-NRM mechanism at the suco level; - National Directorate of Land and Property should be one of the key stakeholders for promotion of CB-NRM; - The unit of the forest area in the policy recommendations should not be km² but ha; and - The basis of the annual deforestation rate of 1.7 % should be specified in the policy recommendations; d. It is important to clarify the roles and responsibilities of the staff recruited for the new department. In fact, the forest guards have not fully performed their functions yet as many of them have not been aware of their tasks. e. The policy recommendations are considered appropriate and timely as the forest management bill will be approved by the GoTL. 												
8 th meeting	Oct. 16, 2014	7 members	<ul style="list-style-type: none"> ◆ The members discussed the draft ministerial order for promotion of the CB-NRM mechanism and also how to get feedbacks from relevant stakeholders on the draft policy recommendations and the draft ministerial order ◆ The members agreed with the draft ministerial 												

Meeting	Date	Participants	Highlights of discussions
9 th meeting	Feb. 3, 2015	13 members	<p>order after discussions.</p> <ul style="list-style-type: none"> ◆ The members discussed how to obtain feedbacks and comments from relevant stakeholders about the draft policy recommendations with the draft ministerial order. ◆ It was agreed among the members that a total of five (5) consultation meetings should be held at the following strategic locations to get opinions from a wide range of stakeholders at both district and central levels. <ul style="list-style-type: none"> - Bauaue for Baucau, Lauten, Viqueque and Manatutu - Ainaro for Ainaro and Manifahi - Suai for Covalima and Bononalo - Dili for Dili, Aileu, Ermera, and Liquica - Dili for Central offices ◆ The members also decided to invite the following stakeholders to the consultation meetings at both levels. <ul style="list-style-type: none"> <u>District Level</u> <ul style="list-style-type: none"> ◆ MAF District Offices ◆ Municipal Government ◆ District Natural Disaster Management Offices ◆ District Environment Offices ◆ District Water Supply and Sanitation Offices ◆ District PNDS Offices ◆ NGOs <u>Central Level</u> <ul style="list-style-type: none"> ◆ Technical National Directorates of MAF (except Fisheries and Veterinary) ◆ National Directorate of Environment ◆ National Directorate of Natural Disaster Management ◆ National Directorate of Water Supply and Sanitation ◆ PNDS ◆ MAF Development Partner-supported Projects ◆ Universities ◆ NGOs
10 th meeting	Jun. 11, 2015	9 members	<ul style="list-style-type: none"> ◆ The members shared the results of the consultation meetings held in March and April 2015. ◆ At the same time, they reviewed the final versions of the plicy recommendations, the drat ministerial order, and the operation manual revised by the JICA Project Team based on the results of the consultation meetings.



Source: JICA Project Team (2015)

Appendix-5.2 stored in the CD attached to this report shows reports and memos of all the meetings held with the NDF taskforce/working team in the course of the Project.

5.3 Preparation of the Operation Manual for Establishment of the CB-NRM Mechanism

5.3.1 Preparation of the 1st Draft of the Operation Manual

The JICA Project Team prepared the first draft of a manual which described the whole process of and detailed procedures for establishment of a mechanism of CB-NRM (CB-NRM mechanism) on a village level in October 2013 based on the results of the activities carried out under Output 1. The manual was named “the Operation Manual for Establishment of the CB-NRM Mechanism at the Suco Level. The manual was submitted to NDF and the National Directorate of Support and Development of Agriculture and Communities (NDSDAC) in the same month for their review and comments, as they were expected to be the main users of the manual in future.

5.3.2 Refinement of the 1st Draft of the Operation Manual

The 1st draft of the operation manual has been reviewed and revised through consultations with stakeholders and trial run of the manual in the field. Some highlights of the activities for revision of the first draft are summarized below.

Revision and Refinement of the Draft Operation Manual

Activities	Month	Description
Introduction to NDF and NDSDAC	February 2014	The JICA Project Team held an introductory seminar on the draft operational manual inviting key officers of NDF, NDSDAC, and MAF District Offices in all the districts. A total of 39 MAF officers attended the seminar and discussed the draft operation manual with the JICA Project Team and the NDF taskforce/working team. The participants expressed their high interest in the draft manual and suggested that MAF/NDF should adopt the same for forest protection in the field. National Director of NDF also showed his intention to put the manual into practice sharing his idea on the utilization of the GEF's fund.
Trial use of the operation manual	May to October 2014	The draft operation manual was put into trial in the field by two local NGOs named PROSPECT and FRATANA, which were hired by the Seed of Life for introduction of PLUP in two (2) sucos in the Raumoo watershed in Lauten in 2014. The JICA Project Team together with the NGOs (RAEBIA Timor-Leste and Halarae Foundation) had assisted the two NGOs in the conduct of PLUP and also periodically evaluated the process to assess the applicability of the draft manual. The JICA Project Team revised the draft manual based on the results of the field assessment and opinions given by the experts of the Seed of Life.
Consultation meetings with relevant stakeholders at the central and district levels	March and April 2015	The JICA Project Team and NDF taskforce/working team jointly held a total of five (5) consultation meetings at strategic locations in Timor-Leste to introduce the following outputs to relevant stakeholders at both central and district levels. <ul style="list-style-type: none"> - Draft policy recommendations for expansion of CB-NRM - Draft ministerial order for promotion of the CB-NRM mechanism - Draft operation manual for establishment of the CB-NRM mechanism The operation manual was again revised referring to the comments and suggestions given by the participants in the consultation meetings. More details of the consultation meetings are described in Section 5.4 of this report.

Source: JICA Project Team (2015)

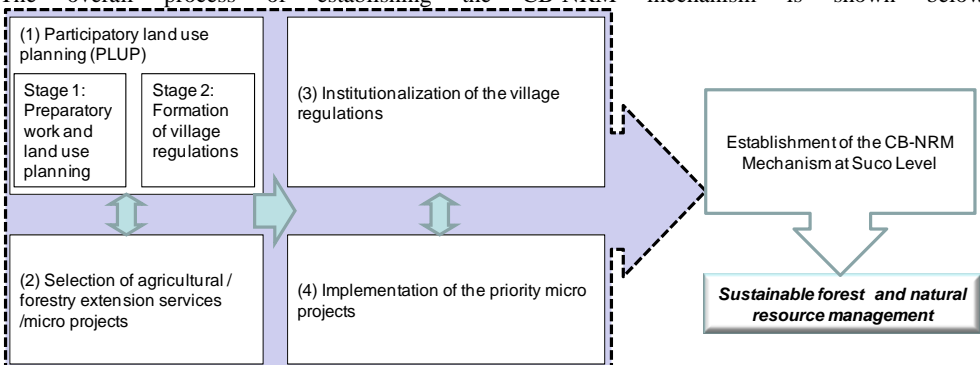
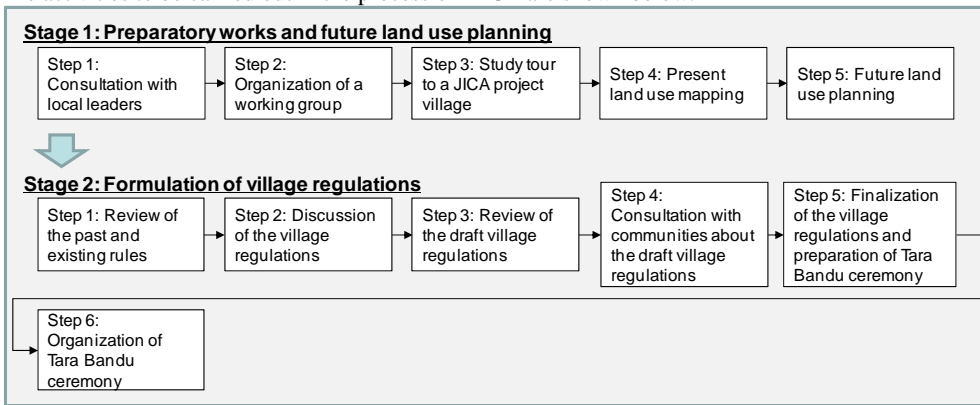


5.3.3 Finalization of the Operation Manual for Establishment of the CB-NRM Mechanism at the Suco Level

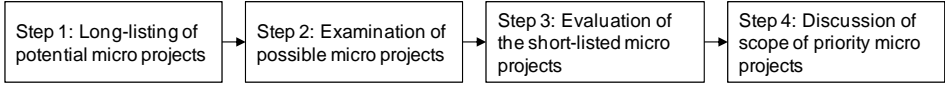



The JICA Project Team finalized the Operation Manual for Establishment of the CB-NRM Mechanism at the Suco Level in both languages, Tetun and English, and submitted 47 copies of the Tetun version with 22 copies of the English version to NDFWM/MAF in November 2015.

Both versions of the Operation Manual are shown in **Appendix-5.3** stored in the CD attached to this report. Some highlights of the manual are also summarized below.

Outline of the Operation Manual

Items	Outline
Objectives of the Manual	The main objective of the 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 introduction and institutionalization of the mechanism in a participatory manner. Specifically, the manual specifies the procedures in detail for: <ol style="list-style-type: none"> 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 enhancement of 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.
Targets of the	This manual targets all the stakeholders who work in the forestry and agriculture sectors in

Items	Outline
Manual	Timor-Leste, especially in the fields of community forestry, community-based natural resource management, and sustainable forest management.
Objectives of the CB-NRM mechanism	<p>The principal 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/NDNC. Specifically, the mechanism aims to:</p> <ol style="list-style-type: none"> 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; empower local communities, especially village leaders, to protect, manage and use forests and other natural resources in the locality; enhance the capacity of local communities, especially village leaders, to manage forest and other natural resources in a wise and sustainable manner in accordance with the village regulations and future land use plan of a village; 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; establish a framework where MAF and NDFWM/NDNC and local communities can work on sustainable forest and natural resource management balancing with livelihood development of local communities.
Overall Process	<p>The overall process of establishing the CB-NRM mechanism is shown below.</p> 
Steps taken in the process of PLUP	<p>The activities to be carried out in the process of PLUP are shown below.</p>  <p>Photos of the steps of Stage 1</p>  <p>Photos of the steps of Stage 2</p> 
Steps taken in the process of	The activities to be carried out in the process of selection priority extension services are shown below.

Items	Outline
selection of priority micro programs/extension services	<div style="text-align: center;">  </div> <p>Photos of the steps of the process</p> 
Activities to institutionalize the village regulations	<p>The following activities should be carried out to enhance the governance capacity of village leaders using the village regulations.</p> <p>Step 1 Monthly monitoring meeting at suco level Step 2 Bi-monthly or quarterly meeting at aldeia level</p>  <p>Step 3 Annual evaluation meeting at suco level</p>
Activities to be carried out in the process of implementation of micro programs/extension services	<p>The following activities should be carried out in the process of implementation of micro programs.</p> <ol style="list-style-type: none"> Organization of farmers/beneficiaries groups at the sub-village level Study tour/cross visit Preparation of an annual work plan in a participatory manner Conducts of a series of hands-on training courses/farmers field schools (FFSs) Annual evaluation and planning of an annual work plan for the following year 

Source: JICA Project Team (2015)

5.4 Preparation of the Policy Recommendations

In October 2014, the JICA Project Team drafted the policy recommendations for expansion of CB-NRM together with the draft ministerial order for promotion of the CB-NRM mechanism through a series of discussions with the NDF taskforce/working team as described in Section 5.1.

(1) Introductory Seminar at NDF

The draft policy recommendations with the draft ministerial order were introduced to key officials of NDF, such as Chiefs of Department of NDF, in a seminar held by the JICA Project Team together with the NDF taskforce/working team on November 19, 2014 to obtain the feedback from them. A total of 19 NDF officials took part in the seminar and the participants generally appreciated the process of making the documents and contents of both documents.

(2) Consultation Meetings at the Central and District Levels

In order to obtain opinions, comments, and suggestions on the draft policy recommendations and the draft ministerial order from a wide range of stakeholders at both central and district levels, the JICA Project Team held a total of five (5) consultation meetings in collaboration with the NDF taskforce/working team in March and April 2015.

Consultation Meetings held in March and April 2015

Date	Venue	No. of Participants	Target districts	Participants
March 3, 2015	Baucau	30 persons	Manatutu, Lauten, Viqueque, & Baucau	MAF District Offices, Natural Disaster Management, Environment, PNDS, SAS
March 13, 2015	Dili	30 persons	Dili, Aileu, Ermera, & Liquica	ditto
March 18, 2015	Ainaro	23 persons	Ainaro & Manufahi	ditto
March 20, 2015	Suai	10 persons	Covalima & Bobonaro	ditto
April 1, 2015	Dili	25 persons	Ministries and National Directorates	National Directorates of MAF, National Directorate of Natural Resources, GCCA-TL (GIZ), OXFARM, etc.

Source: JICA Project Team (2015)

In general, the participants in the consultation meetings accepted the ideas and outline of the documents introduced. Major comments given by the participants were terminologies and expressions/phrases used in the documents. The memos of the meetings are shown in **Appendix-5.4** stored in the CD attached to this report.

(3) Finalization of the Policy Recommendations and Ministerial Order

The JICA Project Team finalized the policy recommendations with the draft ministerial order in May and June 2015 based on the comments and suggestions given in the consultation meetings. A set of the policy recommendations with the draft ministerial order was submitted to NDFWM and MAF in July 2015 for approval. The whole document submitted to NDFWM is shown in **Appendix-5.5** stored in the CD attached to this report. The summary of the policy recommendations is shown below.

Summary of the Policy Recommendations

Outline	Descriptions
Goal	The main goal of the policy recommendations is to indicate effective measures to expand the CB-NRM mechanism for achievement of sustainable forest management in Timor-Leste.
Specific objectives	<ol style="list-style-type: none"> 1. CB-NRM will be officially adopted as one of the key strategies for sustainable forest management in Timor-Leste. 2. The CB-NRM mechanism will be rolled out in strategically important areas as planned in the Forest Conservation Plan. 3. Institutional set-up as well as framework to expand the CB-NRM mechanism will be developed in the forestry sector in Timor-Leste. 4. Community Forest Management Agreement (CFMA) stipulated in the Forest Management Decree will be granted to communities, especially those in villages where the CB-NRM mechanism has been introduced.
Strategies (Short-term and Medium-term)	<p><u>Short-term strategies (2015~2017)</u></p> <ol style="list-style-type: none"> a. A new policy document on promotion of the CB-NRM mechanism will be approved and issued by the MAF b. The Forest Management Decree will be approved and enacted by the GoTL. c. Key programs relating to CB-NRM in the Forest Conservation Plan will be implemented as planned. d. The Department of Reforestation and Community and Urban Forestry will be strengthened and reinforced with the sufficient number of competent staff responsible for CB-NRM. <p><u>Medium-term strategies (2018~2020)</u></p> <ol style="list-style-type: none"> a. The capacity of key stakeholders will be sufficiently enhanced to introduce and promote the CB-NRM mechanism at the village level. b. Introduction of the CB-NRM mechanism will be integrated into the process of granting CFMA and the standard operation procedures for introduction of CFMA will be developed. c. The process of granting CFMA will be incorporated into the process of planning a village development plan. d. CFMA will be applied to villages where the CB-NRM mechanism has been introduced. e. A new department for CB-NRM/CFMA will be established in NDFWM by upgrading the community forestry section in the Department of Reforestation and Community and Urban Forestry. f. Necessary agriculture and forestry extension services essential to establishment of the CB-NRM mechanism will be provided to villages where the CB-NRM mechanism/CFMA is introduced.

Outline	Descriptions
Recommendations	<ol style="list-style-type: none"> 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. 2. Expand the CB-NRM mechanism in villages as planned under Forest Conservation Program in the Forest Conservation Plan. 3. Form a new department specifically for CB-NRM or Community-Based Forest Management (CBFM) in NDFWM.2. 4. Enact the Forest Management Decree along with its supporting guidelines, especially those for introduction of CFMA. 5. Build the capacities of key stakeholders, especially MAF/NDFWM/NDFC and NGOs, to assist communities and their leaders in introduction of the CB-NRM mechanism and preparation for CFMA in the future. 6. Use competent NGOs/facilitators as field facilitators to assist MAF and NDFWM/NDNC in the effective and smooth introduction of the CB-NRM mechanism in the field. 7. Ensure that 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. 8. Integrate the process of introducing the CB-NRM mechanism or granting CFMA into the process of a village development planning.

Source: JICA Project Team (2015)

5.5 Assistance in Institutionalization of the Policy Recommendations

In order to facilitate discussions on the recommendations described above, especially the first recommendation, namely, “*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 basin,*” the JICA Project Team drafted “the ministerial order for promotion of the CB-NRM mechanism” in both English and Portuguese, and submitted to NDFWM/MAF.

At the same time, the JICA Project Team had several meetings with General Director of Forestry on this matter in June and July 2015 to obtain his support for the policy recommendations. The recommendations with the draft ministerial order were finally endorsed by General Director of Forestry to the Minister of MAF on July 15, 2015 as shown in the letter issued by General Director in **Appendix-5.6** stored in the CD attached to this report.

The further follow-up made by the JICA Project Team revealed that the draft ministerial order had been shelved for the moment, although its concept was accepted, since it was difficult for MAF to issue a ministerial order without having the basic forest law. As of the time when the completion report is being prepared, the situation is still the same.

5.6 Preparation of Quick Reference of the Operation Manual

In order to make the Operation Manual handy and easy to use in the field, the JICA Project Team developed an A-3-sized leaflet, which briefly describes the procedures for key processes of the establishment of the CB-NRM mechanism, namely PLUP, selection of priority agriculture and forestry extension services/micro programs, institutionalization of village regulations, and implementation of the extension services/micro programs.

Like in the case of the quick reference of the Technical Manuals, the JICA Project Team submitted about 200 copies of the Tetun version and about 50 copies of the English version of the quick reference to NDFWM in December 2015 for distribution to key stakeholders, especially field officers of MAF working in the Municipal offices concerned with the Laclo and Comoro river basins. **Appendix-5.7** stored in the CD attached to this report shows both versions of the quick reference of the Operation Manual.

Chapter 6 Results of the Activities under Overall Project Management

6.1 Meetings and Seminars with NDF/MAF

In order to help NDF and MAF staff including the counterparts for the Project have a better understanding of the Project, the JICA Project Team has had the following meetings and seminars with the NDF and MAF over the course of the Project.

Meetings with NDF/MAF

Meeting	Date	Highlights of discussions
Kick off meeting with NDF	Jan. 11, 2011	<ul style="list-style-type: none"> ◆ The JICA Project Team and NDF had a kick-off meeting with the participation of National Director of NDF and candidates for the counterparts in the beginning of the Project.
Kick-off meeting with MAF District Office in Aileu	Jan. 18, 2011	<ul style="list-style-type: none"> ◆ Likewise, the JICA Project Team had a kick-off meeting with the MAF district office in Aileu to ensure the participation of the district officers in the project activities as well as the assistance from the district office. ◆ District Director expressed his willingness to cooperate with the Project and agreed that his staff would work for the Project as counterparts.
1 st Project Introductory Seminar for NDF	Jan. 27, 2011	<ul style="list-style-type: none"> ◆ In order to introduce the Project to the staff of NDF, especially chiefs of the departments of NDF, the JICA and MAF Project Teams held the project introductory seminar on January 27, 2011 at the conference room of NDF. A total of 14 participants attended the seminar and exchanged the views and opinions on the Project.
2 nd Project Introductory Seminar for NDF	Oct. 26, 2011	<ul style="list-style-type: none"> ◆ The JICA and MAF Project Teams jointly held the second project introductory seminar in October 2011 to share with the staff of NDF the progress of the Project and concepts of the micro programs that might be implemented in the target sucos. A total of 23 participants from NDF attended the seminar. ◆ It was a good opportunity not only for the NDF staff to enhance their awareness of the Project but also for the counterparts to develop their presentation skills, as some of the presentations were made by themselves in the seminar.
3 rd Project Introductory Seminar for NDF (3 rd)	Mar. 14, 2013	<ul style="list-style-type: none"> ◆ The JICA and MAF Project Teams organized the 3rd project introductory seminar inviting the relevant national directorates of MAF and other ministries, NGOs, and MAF development partners in March 2013. ◆ In the seminar, the JICA and MAF Project Teams together with the partner NGOs introduced the objectives, outline, and major activities of the Project together with some results observed in the field to the participants. ◆ In the end of the seminar, the participants and the Project Teams exchanged the opinions and ideas on approaches to sustainable forest management, particularly the use of the customary rules.
Seminars on CB-NRM Pamphlet and Qucik References at MAF District Offices	Dec. 2 and 9, 2015	<ul style="list-style-type: none"> ◆ The JICA and MAF Project Teams held seminars at the MAF district offices concerned with the Lacló and Comoro river basins, i.e., Aileu, Ermera, Liquica, and Manatutu to introduce and distribute the CB-NRM pamphlet and quick references of the CB-NRM operation and technical manuals to the technical staff in the said MAF district offices. ◆ A total of 88 participants attended the seminars held at the MAF District Offices and exchanged the ideas on CB-NRM with the JICA and MAF Project Teams in the seminars.
Launching and Hand-Over of CB-NRM Manuals	Dec. 11, 2015	<ul style="list-style-type: none"> ◆ The JICA Project Team and NDFWM held a ceremony of launching the CB-NRM operation and technical manuals in December 2015 inviting all the national and district directors of MAF, MAF development partners, and national and international NGOs working in the agriculture and forestry sectors in Timor-Leste. ◆ All the district directors and national directors who attended the ceremony received the following manuals and other documents from NDFWM. <ul style="list-style-type: none"> -Operation Manual for Establishment of the CB-NRM Mechanisms -Technical Manuals (Vol. 1: Seedling Production and Tree Planting, Vol. 2: Sustainable Upland Farming, and Vol. 3: Income Generating/Livelihood Development) -Manual for Establishment of a Watershed Management Council -CB-NRM Information Kit -CB-NRM Pamphlet -Quick References of the CB-NRM Operation and Technical Manuals ◆ Other participants also received electrical files of the above-listed materials

Meeting	Date	Highlights of discussions
		together with the printed booklets/leaflet of the pamphlet and quick references.

Source: JICA Project Team (2015)

Memos of the meetings and seminars listed above are shown in **Appendix-6.1** stored in the CD attached to this report.

6.2 Procurement of the Project Equipment

In accordance with the R/D of the Project, the JICA Project Team has procured the following project equipment over the course of the Project.

Project Equipment Procured and Handed Over to MAF/NDF

Equipment	Type/Model	Unit	Month of procurement
Motorbikes	Honda Megapro 150	4	May 2011
Photocopy machine	Xerox DC 1085	1	March 2011
Desktop Computer	HP pro 3000 Desktop HP LE1851W 18.5" Monitor	1	March 2011
Software	Microsoft Office Home and Business 2010	1	March 2011
Anti-virus Software	Kaspersky AntiVirus 2011	1	February 2011
Projector	LCD Projector SANYO PDG-DSU20	1	May 2011
Generator	Honda SGX 2500	1	June 2011
GPS	Garmin E-treck	4	January 2011
Project Vehicles	Toyota Hi Lux 3000	2	June 2012

Source: JICA Project Team (2012)

All the equipment and tools were officially handed over to MAF/NDF either on August 2, 2011 or June 14, 2012 as shown below.

Dates of Hand-over of the Equipment

Equipment	Unit	Date of Hand-over
Motorbikes	4	August 2, 2011
Photocopy machine	1	August 2, 2011
Desktop Computer	1	August 2, 2011
Software	1	August 2, 2011
Anti-virus Software	1	August 2, 2011
Projector	1	August 2, 2011
Generator	1	August 2, 2011
GPS	4	August 2, 2011
Project Vehicles	2	June 14, 2012

Source: JICA Project Team (2011)




Although they were handed over to MAF/NDF, the JICA and MAF Project Teams have preferentially used them for project operations as mutually agreed upon by JICA and MAF. The agreements exchanged by both parties are shown in **Appendix-6.2** stored in the CD attached to this report.



6.3 Joint Coordination Committee (JCC) Meetings

As of the time when this report is prepared, the JICA and MAF Project Teams have held a total of seven (7) Joint Coordination Committee meetings. Minutes of the meetings are shown in **Appendix-6.3** stored in the CD attached to this report, and some highlights of the discussions in the meetings are summarized below.

JCC Meetings held during the Project Period

Meeting	Date	Major Participants	Highlights of discussions
1 st JCC Meeting	Aug. 2, 2011	Secretary of State for Agriculture and Arboriculture, Chief Representative of	◆ The JCC members suggested that the Project should involve the staff of the other relevant national directorates of MAF when implementing the micro programs to maintain the quality of the work.

Meeting	Date	Major Participants	Highlights of discussions
		JICA Timor-Leste, and five (5) National Directors of MAF	<ul style="list-style-type: none"> ◆ Secretary of State for Agriculture and Arboriculture insisted that the NDF should have the responsibility for execution of the project budget as an implementing agency. Nevertheless, the chairperson of the JCC meeting, National Director of NDF, responded that NDF considered the current project design acceptable and realistic since i) the capacity of NDF was still too limited to implement the Project and ii) NDF needed to learn skills and techniques to develop its capacity to implement a similar project in future. 
2 nd JCC Meeting	Nov. 30, 2011	Chief Representative of JICA Timor-Leste and five (5) National Directors of MAF	<ul style="list-style-type: none"> ◆ The JICA and MAF Project Teams explained the PDM, PO, and an annual plan of operation (APO) from January 2011 to March 2012 in addition to the progress of the Project. ◆ The members unanimously approved the PDM, PO, and APO of the Project in the meeting.
3 rd JCC Meeting	Oct. 24, 2012	Secretary of State for Forests and Nature Conservation, General Director MAF, Chief Representative of JICA Timor-Leste, and representatives of National Directorates of MAF	<ul style="list-style-type: none"> ◆ The JICA and MAF Project Teams explained the APO from April 2012 to March 2013 and the progress of the Project. The APO was unanimously approved by the participants in the meeting. ◆ There were also some valuable comments and suggestions from Secretary of State of Forest and Natural Conservation and General Director of MAF on the support from MAF for expansion/continuation of the project activities as follows. <ul style="list-style-type: none"> - Secretary of State of Forest and Natural Conservation appreciated the effectiveness of the project activities stating that the Government put a high priority on the protection of forest resources from illegal logging. - General Director suggested the possibility that MAF might be able to provide the financial support to the Project for expansion of the project activities. - Secretary of State also advised the MAF and JICA Project Teams to exchange information with the watershed management project being implemented in Lauten, since the same project seemed to take a participatory approach similar to the Project for sustainable forest management in the upper watershed of the Raumoco river. 
4 th JCC Meeting	Mar. 1, 2013	General Director MAF, Chief Representative of JICA Timor-Leste, Five (5) representatives of National Directorates of MAF and Chief of Cabinet of Secretary of State for Forests and Nature Conservation	<ul style="list-style-type: none"> ◆ The results of the mid-term review and revised PDM and PO were discussed in the meeting. ◆ The members of the JCC unanimously approved the revised PDM and PO after the presentation made by the JICA Project Team. ◆ In response to the recommendation on MAF's financial responsibility for counterpart budget, General Director of MAF and other JCC members commented as follows. <ul style="list-style-type: none"> - MAF will seriously take into account the recommendations given by the Joint Mid-term Review Team. - MAF could be able to increase its budget from 2014 or 2015, if its current efforts to improve its budget utilization result in good performance. - The Project should prepare a five-year plan of CB-NRM activities and incorporate the plan into the investment plan of NDF from 2014 to 2018 so that NDF could have a basis for annual budget request on CB-NRM. 
5 th JCC Meeting	Jan. 21, 2014	General Director of MAF, Chief Representative of JICA Timor-Leste, Four (4) National Directors of MAF,	<ul style="list-style-type: none"> ◆ The participants discussed i) progress of the Project, ii) pending indicators of the PDM, and iii) new structure of JCC. The participants agreed with the revised PDM and the new structure of the JCC. ◆ It was suggested by and agreed upon among the participants in the meeting that NDF should submit the revised PDM and proposed

Meeting	Date	Major Participants	Highlights of discussions
		and Nine (9) representatives from National Directorates of MAF	<p>structure of the JCC to all the JCC members/national directors in writing and request them to give their comments on the same within a couple of week to confirm their acceptance.</p> <ul style="list-style-type: none"> ◆ Both documents were deemed to be approved by JCC since there had been no objections from the JCC members after submission in the beginning of February 2014.
6 th JCC Meeting	Oct. 26, 2014	Chief Representative of JICA Timor-Leste, Three (3) National Directors of MAF, and Five (5) representatives from National Directorates of MAF	<ul style="list-style-type: none"> ◆ The JICA Project Team explained the revised PO and APO from April 2014 to October 2015 stressing the activities for formation of a watershed management council of the Noru watershed, which was newly added to the plan in 2014. ◆ The participants in the meeting unanimously approved the revised PO and APO. ◆ They also agreed with the idea given by Chief Representative of JICA Timor-Leste Office that the members of the JCC should visit the target sucos to get a clear picture of the Project. The JICA Project Team committed itself to invite them to the study tour to Suco Tohumeta, which was arranged and held in November 2014. 
7 th JCC Meeting	Jul. 23, 2015	Vice Minister of MAF, General Director of Forestry, General Director of Agriculture and Livestock, Chief Representative of JICA Timor-Leste, Five (5) National Directors of MAF, and Three (3) representatives from National Directorates of MAF	<ul style="list-style-type: none"> ◆ The JICA Project Team introduced the latest PDM and PO and sought the approval from the JCC members. The participants in the meeting unanimously approved the latest PDM and PO. ◆ The MAF and JICA Joint Evaluation Team also explained the result of the terminal evaluation of the Project in the meeting. ◆ Key high officers of MAF gave some valuable comments in the meeting as follows. <ul style="list-style-type: none"> - H.E, Vice Minister commented that the project documents, namely the operation and technical manuals developed by the Project should be fully used by the MAF field officers - National Director of NDFWM commented that he intended to establish one special unit exclusively for the CB-NRM Project to ensure the MAF/NDFWM officials could fully take part in the project activities. - General Director of Forestry expressed his appreciation for the efforts and results made by the Project, especially the documents developed by the Project at the different levels. 
8 th JCC Meeting	Dec. 17, 2015	General Director of Forest, Coffee and Industrial Plant, Chief Representative of JICA Timor-Leste, National Directors of MAF, and Representatives from National Directorates of MAF	<ul style="list-style-type: none"> ◆ The JICA Project Team introduced the outline of the project completion report with the summary of results of the Project. ◆ The JCC members unanimously approved the project completion report.

Source: JICA Project Team (2015)

6.4 Public Relations

6.4.1 Issuance of Project Newsletters

In order to make a wide range of stakeholders aware of the Project and its activities, the JICA Project Team has prepared a total of seven (7) issues of the project newsletters as of the end of March 2015.

Project Newsletter Issued by the Project Team

Issue	Month of Issuance	Contents
No. 1	Mar. 2011	Background and outline of the Project
No. 2	July 2011	Current conditions of six (6) target sucos and the results of PRA conducted in the sucos
No. 3	April 2012	Process of selection of the micro programs in four (4) target sucos
No. 4	August 2012	Major progress of the Project from April to July 2012, e.g., PLUP in two (2) target sucos, implementation of the micro programs in four (4) sucos, and training activities done by the Project.
No. 5	June 2013	Major progress of the Project from July 2012 to March 2013, e.g., implementation of the micro programs in six (6) target sucos, activities done by the JICA Project Team, and the results of the discussion with the NDF taskforce/working team.
No. 6	January 2014	Major progress of the Project from April to November 2013, e.g., process of institutionalization of the village regulations in six (6) sucos, implementation of the micro programs in six (6) sucos, training courses arranged and held by the JICA Project Team, and the results of the discussion with the NDF taskforce/working team.
No. 7	September 2014	Processes and results of i) development of the policy recommendations and ii) formation of the watershed management council of the Noru river watershed


Source: JICA Project Team (2015)

The newsletters were distributed to the relevant government offices, MAF development partners, and international/national NGOs working in the agriculture and forestry sectors in Timor-Leste. All the newsletters issued by the Project are shown in **Appendix-6.4** stored in the CD attached to this report.

6.4.2 Events organized by the JICA Project Team for Information Dissemination

To raise awareness of the project activities among high officials of MAF, the JICA Project Team has arranged and organized the following events in collaboration with the partner NGOs.

Events arranged by the JICA Project Team and Partner NGOs

Events	Month	Key participants		Major activities
Harvesting ceremony at Suco Fadabloco	April 2013	Secretary of State of Forest and Nature Conservation, District Director of MAF, Representative of NDF, Representative of JICA Timor-Leste Office, and Experts from Seed of Life and Worldbank		- Observation of field activities and results - Meeting with local communities
Harvesting ceremony at Suco Tohumeta	March 2015	General Director of Forest, Representative of NDFWM, and District Director of MAF		Ditto

Source: JICA Project Team (2015)

6.4.3 Participation in Exhibitions and Presentation in Conferences

In addition to the events that the JICA Project Team arranged and organized, the Project Team and the partner NGOs have participated in the following exhibitions and conferences to introduce the approaches and results of the Project during the project period.

Events that the JICA Project Team and Partner NGOs participated for Introduction of the Project

Events	Month	Activity
Exhibition of MAF's activities	October 2013	Introduced the project activities by displaying the project newsletters, future land use maps and village regulations developed by the target sucos, local products produced by the beneficiaries' and women groups in the target sucos, and photos of the project activities.
CBD event organized by UNDP in Dili	May 2014	Ditto

Events	Month	Activity
Workshop organized by Global Climate Change Adaptation (GCCA)	November 2014	Presentation of the concept and activities of the CB-NRM project Arrangement of a study tour for the participants in the workshop to the target suco.

Source: JICA Project Team (2015)

6.5 Training of Counterparts in Japan

A total of nine (9) counterparts took part in the training courses in Japan as shown below.

Training Courses in Japan arranged for the Counterparts

Year	Trainees	Position and Department	Period	Topics of the course
2011	Mr. Vildito Ximenes Mr. Marcelino Perreira	Staff of Dept. of Watershed Management District Forest Officer in Aileu	Nov. 27 ~ Dec. 21	a. Overview of the forest sector and its legislative framework in Japan b. Forest management techniques applied under sub-tropical climate condition c. Forest management systems applied by the different management bodies
2012	Mr. Fernando C. Aroujo Mr. Mario Alves	Chief of Dept. of Reforestation Staff of Dept. of Forest Protection	Nov. 30 ~ Dec. 22	a. Overview of the forest sector and its legislative framework in Japan b. Silvicultural techniques in Japan c. Forest management systems applied by the different management bodies d. Approaches taken for sustainable land and natural resource management in Asia
2013	Mr. Benjamin de Suri Mr. Mayuskling Gutterres	Forest Guard in Aileu Forest Guards in Aileu	Aug. 25 ~ Sep. 11	a. Overview of the forest sector and its legislative framework in Japan b. Reforestation and silvicultural techniques in Japan c. Public awareness and other approaches to protection of forests in Japan
2014	Mr. Manuel Mendes Mr. Mateus Gomes Ms. Celestina Barreto	National Director of NDF Staff of Dept. of Reforestation Staff of Dept. of Forest Protection	Aug. 31 ~ Sep. 9 Aug. 24~ Sep. 17	a. Overview of the forest sector and its legislative framework in Japan b. Training of foresters in Japan c. Watershed management in Japan d. Forest management using the Satoyama approach

Source: JICA Project Team (2015)

The JICA Project Team arranged for the training courses coordinating with the relevant organizations in Japan prior to the courses. A member of the JICA Project Team also accompanied the counterparts during the training courses in Japan.

6.6 Coordination with Other Organizations

(1) Visit of a Mission from RECOFTC

The JICA Project Team accepted a mission from RECOFTC in Thailand in February 2012. The mission held focus group discussions and conducted semi-structured interviews with the JICA and MAF Project Teams to assess the training/capacity development needs of the counterparts. As a result of its short visit, the mission drafted a capacity development program for the counterparts as well as other staff of NDF and submitted the same to JICA HQ.



Visit of a Mission from RECOFTC

(2) Exchange Visit by Communities from the Raumoco Watershed Management Council

The JICA Project Team together with the partner NGO (RAEBIA Timor-Leste) received an exchange visit of a group of communities supported by the Raumoco watershed management project in November 2012. The exchange visit was arranged by HIVOS, an international NGO working for the same project.

As the aim of the exchange visit was to learn the process and effectiveness of PLUP, the Project Team with the NGO i) gave the group briefings of the watershed management plan for Laclo and Comoro river basins and the major project activities, especially the process of PLUP; ii) arranged a meeting between the group and the village committee of Suco Faturasa, and iii) provided an opportunity to observe the training session of SUFFP-MP in Sucos Faturasa and Fadabloco.



Visit of Communities from the Raumoco Watershed

(3) Assistance in the Conduct of PLUP in the Raumoco Watershed

In the concrete, the JICA Project Team together with the partner NGOs, RAEBIA Timor-Leste and Halarae Foundation, had helped two local NGOs hired by Seed of Life assist two (2) sucos in the Raumoco watershed in the formulation of the village regulations and future land use plans of the sucos following the process of PLUP from June to October 2014.

As a result, the two local NGOs had gone through all the processes of PLUP and were able to help village leaders and communities in two (2) sucos develop the village regulations and future land use plans.



PLUP at Sucos in Raumoco

(4) Information Sharing and Support for Field Visit by MAF Development Partners

The JICA Project Team have kept communicating with the relevant MAF development partners and their supporting projects to share the experiences gained by the Project and introduce the results of the Project, especially the CB-NRM mechanism/approach developed by the Project, so that those who might have interest in the CB-NRM mechanism/approach could put it (or even part of it) to trial in their target areas.

To this end, the JICA Project Team has conducted the following activities in coordination with the partner NGOs over the course of the Project.

- a. Meetings with the experts from WorldBank, UNDP, FAO, EU, GIZ, COMES, USAID, AusAID/DFAT, OXFARM, and Marcycorp to share the project information
- b. Support for field visits of WorldBank, EU, GIZ, USAID, and AusAID/DFAT to the target villages and explanation of the project activities in the field
- c. Sharing of project documents, especially the policy recommendations with draft ministerial order, and CB-NRM operation and technical manuals, and other public relations materials, with UNDP, FAO, EU, GIZ, COMES, USAID, and AusAID/DFAT



Field Visit by WorldBank

6.7 Project Evaluation

The Project has been evaluated periodically by JICA and MAF in accordance with the R/D exchanged by both organizations. Chapter 7 of this report describes the results of the terminal evaluations jointly conducted by JICA and MAF in June/July 2015. Some key results of the mid-term review and terminal evaluations are summarized below.

Summary of the Mid-term and Terminal Evaluation

Evaluation	Period	Summary of the results																				
Mid-term evaluation	Feb./Mar/ 2013	<p>The joint evaluation team evaluated the performance of the Project in terms of the DAC five evaluation criteria. The results of the evaluation were summarized below.</p> <table border="1"> <thead> <tr> <th>Evaluation criteria</th> <th>Results</th> </tr> </thead> <tbody> <tr> <td>Relevance</td> <td>High</td> </tr> <tr> <td>Effectiveness (Prospect)</td> <td>Moderate</td> </tr> <tr> <td>Efficiency</td> <td>Relatively high- moderate</td> </tr> <tr> <td>Impact</td> <td>Some positive impacts have been observed. No negative impacts have been observed.</td> </tr> <tr> <td>Sustainability (Forecast)</td> <td>Sustainability is not likely to be ensured sufficiently.</td> </tr> </tbody> </table> <p><i>Source: JICA and MAF Joint Mid-term Evaluation Report (2013)</i></p> <p>Based on the reviews and analyses made, the review team revised the PDM and PO of the Project and made the following recommendations to the relevant parties.</p> <table border="1"> <thead> <tr> <th>Address to</th> <th>Descriptions</th> </tr> </thead> <tbody> <tr> <td>MAF and JICA Project Teams</td> <td> <ol style="list-style-type: none"> 1) Clarification of specific roles and responsibilities of the stakeholders at field level 2) Review of capacity development plans for the Timorese project personnel 3) Development of an operational manual, technical manuals and policy recommendations 4) Development of simplified methodology/techniques 5) Information sharing workshops in the project sites 6) Awareness building for high officials 7) Determination of the planned value of the indicators of the PDM 8) Monitoring of the indicators of the PDM </td> </tr> <tr> <td>MAF</td> <td> <ol style="list-style-type: none"> 1) Allocation of budget for running expenses of the project 2) Preparation of a budget plan for the post-project period 3) Assignment of an official of the NDSDAC as Timorese project personnel or focal point </td> </tr> <tr> <td>JICA</td> <td> <ol style="list-style-type: none"> 1) Resource mobilization and coordination </td> </tr> </tbody> </table> <p><i>Source: JICA and MAF Joint Mid-term Evaluation Team (2013)</i></p>	Evaluation criteria	Results	Relevance	High	Effectiveness (Prospect)	Moderate	Efficiency	Relatively high- moderate	Impact	Some positive impacts have been observed. No negative impacts have been observed.	Sustainability (Forecast)	Sustainability is not likely to be ensured sufficiently.	Address to	Descriptions	MAF and JICA Project Teams	<ol style="list-style-type: none"> 1) Clarification of specific roles and responsibilities of the stakeholders at field level 2) Review of capacity development plans for the Timorese project personnel 3) Development of an operational manual, technical manuals and policy recommendations 4) Development of simplified methodology/techniques 5) Information sharing workshops in the project sites 6) Awareness building for high officials 7) Determination of the planned value of the indicators of the PDM 8) Monitoring of the indicators of the PDM 	MAF	<ol style="list-style-type: none"> 1) Allocation of budget for running expenses of the project 2) Preparation of a budget plan for the post-project period 3) Assignment of an official of the NDSDAC as Timorese project personnel or focal point 	JICA	<ol style="list-style-type: none"> 1) Resource mobilization and coordination
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MAF	<ol style="list-style-type: none"> 1) Allocation of budget for running expenses of the project 2) Preparation of a budget plan for the post-project period 3) Assignment of an official of the NDSDAC as Timorese project personnel or focal point 																					
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Final evaluation	Feb./Mar/ 2013	<p>The results of the evaluation of the Project based on the five evaluation criteria are summarized below.</p> <table border="1"> <thead> <tr> <th>Evaluation criteria</th> <th>Results</th> </tr> </thead> <tbody> <tr> <td>Relevance</td> <td>High</td> </tr> <tr> <td>Effectiveness</td> <td>High</td> </tr> <tr> <td>Efficiency</td> <td>Moderate</td> </tr> <tr> <td>Impact</td> <td>Some positive impacts have been observed. No negative impacts have been observed.</td> </tr> <tr> <td>Sustainability</td> <td>Sustainability is yet to be ensured sufficiently, although it is expected on some positive aspects.</td> </tr> </tbody> </table> <p><i>Source: Report of the Joint Terminal Evaluation on the Project for Community Based Sustainable Natural Resource Management in the Democratic Republic of Timor-Leste (2015)</i></p> <p>Furthermore, the joint evaluation team made the following recommendations.</p> <table border="1"> <thead> <tr> <th>Address to</th> <th>Results</th> </tr> </thead> <tbody> <tr> <td>MAF and JICA Project Teams</td> <td> <ol style="list-style-type: none"> 1) Prepare user friendly manuals. 2) Develop public relations materials. 3) Develop a manual on establishment and operation of a watershed management council. </td> </tr> <tr> <td>MAF</td> <td> <ol style="list-style-type: none"> 1) Realize the policy recommendations. 2) Monitor the CB-NRM practices in the target areas. 3) Monitor the watershed management council of the Noru watershed. 4) Utilize the equipment and tools provided by the Forest Preservation Programme. 5) Improve the CB-NRM mechanism. 6) Support the Noru watershed management council. 7) Raise awareness of local residents in the target areas. </td> </tr> <tr> <td>JICA</td> <td> <ol style="list-style-type: none"> 1) Resource mobilization and coordination </td> </tr> </tbody> </table> <p><i>Source: Report of the Joint Terminal Evaluation on the Project for Community Based Sustainable Natural Resource Management in the Democratic Republic of Timor-Leste (2015)</i></p>	Evaluation criteria	Results	Relevance	High	Effectiveness	High	Efficiency	Moderate	Impact	Some positive impacts have been observed. No negative impacts have been observed.	Sustainability	Sustainability is yet to be ensured sufficiently, although it is expected on some positive aspects.	Address to	Results	MAF and JICA Project Teams	<ol style="list-style-type: none"> 1) Prepare user friendly manuals. 2) Develop public relations materials. 3) Develop a manual on establishment and operation of a watershed management council. 	MAF	<ol style="list-style-type: none"> 1) Realize the policy recommendations. 2) Monitor the CB-NRM practices in the target areas. 3) Monitor the watershed management council of the Noru watershed. 4) Utilize the equipment and tools provided by the Forest Preservation Programme. 5) Improve the CB-NRM mechanism. 6) Support the Noru watershed management council. 7) Raise awareness of local residents in the target areas. 	JICA	<ol style="list-style-type: none"> 1) Resource mobilization and coordination
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Source: JICA Project Team (2015)

6.8 Project Reports and Other Deliverables

The JICA Project Team has developed and submitted the following project reports/deliverables to NDF/MAF during the project period.

Reports and Deliverables submitted by the JICA Project Team		
Type of document	Title of document	Month of submission
Project Report	Inception report in English	January 2011
	Progress Report (1) (Tetun and English)	November 2011
	Progress Report (2) (Tetun and English)	December 2012
	Progress Report (3) (Tetun and English)	December 2013
	Progress Report (4) (Tetun and English)	February 2015
	Annual Completion Report (2011/2012) (Tetun and English)	April 2012
	Annual Completion Report (2012/2013) (Tetun and English)	March 2013
	Annual Completion Report (2013/2014) (Tetun and English)	April 2014
	Annual Completion Report (2014/2015) (Tetun and English)	March 2015
	By-monthly Progress Reports from January 2011 to February 2015 (Tetun and English)	January 2011 ~ March 2015
Manuals	Operation Manual for Establishment of the CB-NRM Mechanism at the Suco Level (Tetun and English)	November 2015
	CB-NRM Technical Manuals (Vol. 1 ~ Vol. 3) (Tetun and English)	November 2015
	Manual for Formation of a Watershed Management Council (Tetun and English)	November 2015
	Quick reference of the Operation Manual (Tetun and English)	December 2015
	Quick reference of the Technical Manuals (Tetun and English)	December 2015
Technical Reference	CB-NRM Information Kit (Tetun and English)	November 2015
Policy Documents	Policy Recommendations for Expansion of CB-NRM (Tetun and English)	July 2015
	Draft Ministerial Order for Promotion of the CB-NRM Mechanism (Portuguese and English)	July 2015
Public Relations	CB-NRM Pamphlet (Tetun and English)	December 2015
	Project Newsletters (Issue No. 1~No.7) (Tetun and English)	March 2011 ~ September 2014
Others	Village and Resource Profiles of the Target Villages (Tetun and English)	November 2013
	Reports of the Feedback and Planning Seminars held from 2012 to 2015 (Tetun and English)	March 2012~ February 2015
	Reports on the 3 rd ~9 th meetings with the NDF Taskforce/working team (Tetun and English)	December 2012~February 2015

Source: JICA Project Team (2015)

Chapter 7 Accomplishments of the Project and Summary of the Results of the Terminal Evaluation of the Project

7.1 Assessment of the Level of Achievements of the Project

The JICA and MAF Project Teams assessed the level of achievements of the Projects by checking whether or not the indicators given to the project purpose and outputs in the latest PDM were attained as of the end of November 2015. Based on the assessment made, the JICA and MAF Project Teams judged that all the indicators had been satisfied as of the end of November 2015 as described below.

Level of Achievement of the Project

a. Project Purpose

Objectively Verifiable Indicators	Achievement (as of the end of November 2015)
a. By the Project end, an operational manual of CB-NRM for the Target Area, which clarifies the procedures for implementation of CB-NRM at village level as well as roles/responsibilities of the stakeholders, is approved by Director General (DG) of MAF	<p>Achieved:</p> <ul style="list-style-type: none"> ▶ Having drafted the operation manual for establishment of the CB-NRM mechanism at the village level in October 2013 based on the results of PLUP activities done in the target sucos, the JICA Project Team has refined and finalized the same through discussions with NDF and MAF stakeholders and a trial run in the field. ▶ The operation manual introduces: i) the process of and procedures for introduction and establishment of the CB-NRM mechanism at the village level, ii) institutional framework for establishment of the CB-NRM mechanism, and iii) roles and responsibilities expected to be borne by key players/actors in the process. ▶ In October 2015, the manual was approved by General Director of Forestry, MAF.
b. By the Project end, technical manuals on CB-NRM micro project related techniques for the Target Area are approved by DG of MAF	<p>Achieved:</p> <ul style="list-style-type: none"> ▶ The first draft of the technical manuals on CB-NRM micro programs, namely Vol. 1: Seedling Production and Tree Planting, Vol. 2: Sustainable Upland Farming Promotion (including Community-Based Seed Extension), Vol. 3: Income Generating/Livelihood Development, were prepared by the JICA Project Team in April 2014. ▶ The JICA Project Team has revised and improved the technical manuals based on the results of the micro programs implemented in the target villages and comments/suggestions obtained in the consultations with potential users of the manuals, such as MAF technical and field officers and NGO staff in 2014/2015. ▶ Finalized by the JICA Project Team in September 2015, the technical manuals were approved by General Director of Forestry, MAF in October 2015 when the operation manual was approved.
c. By the Project end, the draft policy recommendations to support and promote CB-NRM in the Target Area are endorsed by DG of MAF for approval by Secretary of State for Forest and Nature Conservation	<p>Achieved:</p> <ul style="list-style-type: none"> ▶ The draft policy recommendations were prepared in August 2014 through a series of discussions with the NDF taskforce/working team. Furthermore, the ministerial order for promotion of the CB-NRM mechanism was drafted in October 2014 based on the results of the discussions with the taskforce/working team. These documents (the draft policy recommendations and the draft ministerial order) were introduced to NDF officers in a seminar held in November 2015. ▶ In order to get feedbacks and comments on the documents from a wide range of stakeholders at the district and central level, the JICA Project Team and the NDF taskforce/working team jointly held four (4) consultation meetings at the district level and one meeting at Dili with those at the central level in March and April 2015. ▶ The JICA Project Team revised and finalized the draft policy recommendations and the draft ministerial order based on the results of the consultation meetings in May/June 2015, and submitted the same to General Director of Forestry, MAF through NDFWM for approval and endorsement. ▶ In July 2015, a set of the documents, policy recommendations for CB-NRM expansion with the draft ministerial order for promotion of the CB-NRM mechanism, was endorsed by General Director of Forestry for approval of Minister of MAF.
d. By the Project end, on average,	Achieved:

Objectively Verifiable Indicators	Achievement (as of the end of November 2015)
more than 75 % of the Project Personnel of NDF and MAF reach at least the second best level of five (5)-level evaluation rating set by the Project for the items identified in the respective capacity development plans, which are in line with their roles/responsibilities in CB-NRM	<ul style="list-style-type: none"> ▶ The JICA Project Team has evaluated the level of the counterparts' understanding of the crucial points of key CB-NRM techniques by using a set of questionnaires in March 2015. All the active counterparts (11 counterparts) except Project Manager and Project Coordinator were requested to answer the questionnaires. The results of the questionnaire survey showed that more than 80 % of the counterparts (nine counterparts out of 11) got more than the second best accuracy rate (more than 60 %) of five (5)-level score range.

Source: JICA Project Teams (2015)

b. Level of Achievement of Output 1

Objectively Verifiable Indicators	Achievement (as of the end of November 2015)
1a By September 2012, in all target sucos, participatory land use plans (PLUPs) with the suco regulations are agreed by the respective suco regulation ceremonies	<p>Achieved:</p> <ul style="list-style-type: none"> ▶ All the six (6) target sucos had developed the village regulations and future land use plans and officially announced the implementation/enforcement of the village regulations through the traditional ceremonies by September 2012.
1b At the Project end, in all target sucos where the suco regulations are introduced, annual number of forest fires, illegal cutting, and crop damage made by free grazing are found to be decreased according to the observation of the respective suco regulation committees	<p>Achieve:</p> <ul style="list-style-type: none"> ▶ According to the observation of village leaders, the incidence of forest fires, illegal cutting, and crop damage caused by free grazing animals has been drastically reduced since the introduction of the village regulations, although there have been still some cases of wild fires, illegal cutting, and free animal grazing occurring in the villages. ▶ Overall, village leaders' capacity for problem-solving has been enhanced in all the villages. In fact, one of the villages has developed an internal monitoring system to reduce the incidence of fire.
1c At the Project end, in all target sucos, more than 80% of the registered beneficiaries of reforestation, sloping agriculture/agroforestry, and alternative livelihood activities each under the micro projects in the second-batch of training consider that the concerned activity has contributed to their livelihood improvement.	<p>Achieved:</p> <ul style="list-style-type: none"> ▶ In 2013/2014, out of 941 registered beneficiaries in the six (6) sucos, a total of 890 members (95%) have engaged in the micro program activities, such as sloping agriculture, seedling production, reforestation, livelihood development, and sustainable upland farming. ▶ At the end of the 2nd year's training curricula of the micro programs in the first batch of villages (Sucos Fadabloco, Faturasa, Madabeno, and Talitu), 813 members (about 92 %) out of 884 registered members have applied the techniques that they learned. More details are given below. <ul style="list-style-type: none"> ✓ 249 members (94 %) out of 266 registered beneficiaries of SPTPP-MP in Sucos Madabeno and Talitu planted a total of 22,200 seedlings in 2012/2013, while 302 members (89 %) of 338 registered ones of the same micro program planted 22,600 seedlings in 2013/2014. ✓ About 95 % (or 547 members) of 578 registered beneficiaries of SUFP-MP and SUFP with CBSE-MP in the four (4) villages applied the sustainable upland farming techniques to their own farms. ✓ 17 members (43 %) of 40 women in the four (4) women's groups mainly engaged in the production of cassava chips and earned US\$ 540 in gross profit from selling their products as of the end of February 2014. ▶ Likewise, a total of 215 members (or 96 %) of the registered beneficiaries (225 member) of the micro programs in the 2nd batch villages (Suco Hautoho and Tohumeta) applied those that they learned through the FFSs of the micro programs. ▶ Furthermore, about 83 % or 514 members of the micro programs in the 1st batch sucos (620 registered members in total in 2014/2015) continued the micro program activities with limited support from the NGOs as they judged that the techniques introduced by the micro programs would contribute to improvement of their livelihoods. ▶ More details of the results in 2014/2015 are shown below. <ul style="list-style-type: none"> ✓ In the second batch villages, 100 % of the registered members of SUFP with CBSE-MP and SUB/PF-MP have applied the sustainable upland farming techniques to their own farms and appreciated the effectiveness of such techniques. ✓ About 20 women out of 30 registered members of IG/LD-MP in Suco Hautoho have engaged in kontas chips production and mending of cloths by

Objectively Verifiable Indicators	Achievement (as of the end of November 2015)
	<p>using sewing machines and earned cash income from the activities.</p> <ul style="list-style-type: none"> ✓ About 86% members (or 497 members) of those who participated in the follow-up activities of SUFP with CBSE-MP and SPTPP-MP in the 1st batch villages (580 members in total) have applied the sustainable upland farming techniques to their own farms. ✓ About 96 % (or 256 members) of the registered members of SPTPP-MP in 2014 have prepared their lands for planting seedlings in 2014/2015. ✓ The active members (17 members) of the women's groups in Suco Fadabloco have continued cassava chips production and earned more than US\$ 3,000 from the sales o as of the end of March 2015.

Source: JICA Project Teams (2015)

c. Level of Achievement of Output 2

Objectively Verifiable Indicators	Achievement (as of the end of November 2015)																																				
2a All of the topics related to CB-NRM, identified through the training needs assessment, are covered by the training, including technical & planning seminars, and on-the-job training.	<p>Achieved:</p> <ul style="list-style-type: none"> ▶ All the 10 topics listed in the capacity development plan (i.e., i) overall aims and concepts of CB-NRM, ii) village profiling/PRA, iii) PLUP, iv) participatory monitoring and evaluation of village regulations, v) participatory planning, vi) relevant agriculture and forestry skills, vii) participatory monitoring of micro programs, viii) planning of annual work plan, ix) facilitation skills, and x) TOR for implementation of micro project have been handled by technical seminars by the end of March 2013. ▶ In addition, technical seminars/study tours on the following topics have been conducted for the counterparts from April 2013 to the end of March 2015. <ul style="list-style-type: none"> - Building of an animal pen - Use of natural resources for livelihood development - Stall feeding and fodder production ▶ The counterparts have engaged in OJT in field monitoring and supervision of the micro programs from January 2012 to June 2015. They also played a leading role in seminars and study tours held for key officers of the district MAF offices in Ermera, Liquica, Aileu, and Manatut as part of ToT in 2013 and 2014. 																																				
2b On average, the technical seminar participants give 4 points on a five-point scale about “understandability of materials”, “clearness of explanation”, and “relevancy of topic ” of the concerned seminars	<p>Achieved:</p> <ul style="list-style-type: none"> ▶ As of the end of December 2014, a total of 15 technical seminars including refreshing courses have been conducted by the Project. On average, about 76.2 % of the target members have participated in the seminars. The participants of the seminars gave more than 4 points each for the three criteria (understandability of materials, clearness of explanation, and relevancy of topic) on average as shown below. <p style="text-align: center;">Evaluation of the Seminars</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Criteria</th> <th>Average score</th> </tr> </thead> <tbody> <tr> <td>Understandability of materials</td> <td>4.3</td> </tr> <tr> <td>Clearness of explanation</td> <td>4.2</td> </tr> <tr> <td>Relevancy of topic</td> <td>4.3</td> </tr> </tbody> </table> <p style="text-align: center;">Source: JICA Project Team (2014)</p>	Criteria	Average score	Understandability of materials	4.3	Clearness of explanation	4.2	Relevancy of topic	4.3																												
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2c At the Project end, on average, the Project Personnel of NDF and MAF evaluate their understanding about the training topics as at least middle on three-point scale.	<p>Achieved:</p> <ul style="list-style-type: none"> ▶ In the feedback and planning workshops held in January and February 2014, the MAF Project Team evaluated their understanding of the topics relevant to CB-NRM. The results of the workshops revealed that the participated members judged that their understanding was more than the middle level on three-point scale as summarized below. <p style="text-align: center;">Summary of the Results of Self-evaluation in 2014</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Topics</th> <th>Understanding</th> <th>Application <1</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>PLUP</td> <td>2.5</td> <td>2.4</td> <td>2.4</td> </tr> <tr> <td>SPTPP-MP</td> <td>2.8</td> <td>2.6</td> <td>2.7</td> </tr> <tr> <td>SUFP-MP</td> <td>2.8</td> <td>2.7</td> <td>2.8</td> </tr> <tr> <td>CBSE-MP</td> <td>2.9</td> <td>2.8</td> <td>2.9</td> </tr> <tr> <td>IG/LD-MP</td> <td>1.9</td> <td>1.9</td> <td>1.9</td> </tr> <tr> <td>Facilitation skill</td> <td>2.5</td> <td>2.4</td> <td>2.4</td> </tr> <tr> <td>Project management</td> <td>n.a.</td> <td>2.5</td> <td>2.5</td> </tr> <tr> <td>Average</td> <td>2.6</td> <td>2.5</td> <td>2.5</td> </tr> </tbody> </table> <p>Remarks: Each topic was evaluated by following the 3-rating system: 3-satisfactory, 2-fair, and 1-not satisfactory. Source: JICA Project Team (2014)</p> <ul style="list-style-type: none"> ▶ The same seminars were held in January and February 2015. The counterparts again evaluated their understanding and confidence levels about all the key topics as follows. 	Topics	Understanding	Application <1	Average	PLUP	2.5	2.4	2.4	SPTPP-MP	2.8	2.6	2.7	SUFP-MP	2.8	2.7	2.8	CBSE-MP	2.9	2.8	2.9	IG/LD-MP	1.9	1.9	1.9	Facilitation skill	2.5	2.4	2.4	Project management	n.a.	2.5	2.5	Average	2.6	2.5	2.5
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Average	2.9	2.5	2.7																														
2d Annual work plans to support and promote CB-NRM in the Target Area are formulated by the concerned NDF and MAF district officers for the years 2013- 2016.	<p>Achieved:</p> <ul style="list-style-type: none"> ▶ The JICA Project Team has assisted the counterparts (NDF officers as well as officers from the MAF District Office in Aileu) in the preparation of their annual operation and budget plans for FY 2012, 2013, 2014, 2015, and 2016. The plans were submitted to NDF/NDFWM as well as the District Office for their deliberation in the respective years. ▶ The Team also helped NDF develop a five-year budget plan on CB-NRM and an annual budget plan on the same in 2013. ▶ In 2015, NDFWM approved a part of their plan and allocated some budgets for their monitoring of the project activities. 																																
2e By June 2015, final draft of the technical manuals on CB-NRM for the Target Area are developed in consultation with the relevant technical National Directorates of MAF	<p>Achieved:</p> <ul style="list-style-type: none"> ▶ As described in the part of Project Purpose, the draft technical manuals were developed in April 2014 and had been revised and refined through consultations with technical officers of MAF (NDFWM, NDNC, NDEDAC, and MAF District Offices) as well as NGOs and reviews based on the results of field application of the techniques in the target villages. ▶ As a result, the JICA Project Team finalized the CB-NRM technical manuals composed of three (3) volumes (i.e., Vol. 1: Seedling Production and Tree Planting, Vol. 2: Sustainable Upland Farming Promotion, Vol. 3: Income Generating/Livelihood Development) in September 2015. ▶ Approved by National Director of NDFWM, the technical manuals were further approved by General Director of Forestry, MAF in October 2015. 																																
2f By the Project end, the facilitating agencies in the Target Area involved in the Project become able to assume roles/responsibilities clarified in the operational manual of CB-NRM according to the criteria set by the Project.	<p>Achieved:</p> <ul style="list-style-type: none"> ▶ The two (2) NGOs that have been engaged in the PLUP activities and the implementation of the micro programs have substantially developed their capacities for introduction and promotion of the CB-NRM mechanism. ▶ The performance of the NGOs suggests that they can fulfill the roles/responsibilities defined in the operation manual for establishment of the CB-NRM mechanism. ▶ In fact, the main facilitators of the NGOs were hired by Seed of Life to coach two (2) local NGOs on the conduct of PLUP in two (2) villages in the Rumoco watershed. 																																
2g By the Project end, all the suco regulation committees of the target sucos become able to assume roles/responsibilities clarified in the operational manual of CB-NRM according to the criteria set by the Project.	<p>Achieved:</p> <ul style="list-style-type: none"> ▶ As mentioned in the part of Output 1, the capacities of village leaders have been enhanced substantially through a series of dialogues in PLUP and periodical village meetings where they have discussed how to solve/settle issues using the village regulations. ▶ Likewise, it is judged that they could fulfill the roles and responsibilities defined in the operation manual based on the current performance of village leaders in the target villages. 																																

Source: JICA Project Teams (2015)

d. Level of Achievement of Output 3

Objectively Verifiable Indicators	Achievement (as of the end of November 2015)
3a By June 2015, final draft of the operational manual of CB-NRM for the Target Area is developed in consultation with NDSACD	<p>Achieved:</p> <ul style="list-style-type: none"> ▶ As described in the part of Project Purpose, the first draft of the operational manual of CB-NRM was submitted to NDF and NDSACD. In February 2014, the manual was explained to the key staff of NDFWM and NDEDAC as well as MAF District Offices in 12 districts in the workshop. ▶ The draft manual was further introduced and explained to a wide range of stakeholders in consultation meetings held at the central and district levels in March and April 2015. ▶ The operation manual was finalized based on the comments and suggestions given by the stakeholders and the results of a field trial in the Raumoco

Objectively Verifiable Indicators	Achievement (as of the end of November 2015)
	watershed in July 2015. <ul style="list-style-type: none"> ▶ The finalized operation manual was approved by National Director of NDFWM and further done by General Director of Forestry, MAF in October 2015.
3b By June 2015, the draft policy recommendations to support and promote CB-NRM in the Target Area are developed in consultation with the relevant stakeholders	Achieved: <ul style="list-style-type: none"> ▶ As described above, the JICA Project Team prepared the first draft of the policy recommendations with the draft ministerial order for promotion of the CB-NRM mechanism in October 2014. ▶ Both documents were introduced, explained, and discussed in the consultation meetings with key stakeholders at the central and district levels in March and April 2015. ▶ In June and July 2015, the policy recommendations with the draft ministerial order were refined and finalized based on the comments obtained in the consultation meetings. ▶ The finalized policy recommendations and the draft ministerial order were endorsed by General Director of Forestry, MAF for approval of Minister of MAF in July 2015.

Source: JICA Project Teams (2015)

7.2 Results of the Terminal Evaluation

As described in Chapter 6, the terminal evaluation of the Project was conducted by MAF and JICA in June and July 2015. The report on the terminal evaluation prepared by the MAF and JICA joint evaluation team in July 2015 is shown in **Appendix-7.1** stored in the CD attached to this report. The results of the evaluation of the Project based on the five evaluation criteria are summarized below.

Results of the Evaluation based on Five Evaluation Criteria

Criteria	Evaluation	Description
Relevance	High	<p>The Overall Goal and the Project Purpose are consistent with the organizational needs of the NDF/MAF and the needs of the relevant personnel of NDF and District Directorates of MAF in the target area. This is because NDF is tasked to prepare the forestry policy and attend, implement, and supervise the policy, forest guards of MAF district offices are tasked to protect forests, forest products and forests from forest fires and raise public awareness of forest functions and extension workers are expected to promote the development of the agriculture and forestry, involve farmers in the development of the agriculture and forestry, etc. They are relevant with the needs of local people in the Target Area because the majority of people depends their livelihood either directly or indirectly on the natural resources.</p> <p>They are consistent with the Strategic Development Plan of Timor-Leste as well as Official Development Assistance (ODA) policies of Japan. Introduction of the CB-NRM mechanism is also proposed in the Forest Conservation Plan prepared under Japan's Grant Aide Project named "Forest Preservation Programme" (2011-2013). Japanese technical advantage has been confirmed as JICA jointly with MAF carried out the Development Study on Community-Based Integrated Watershed Management in the Target Area of the current Project, with implementation of pilot projects focusing on the participatory land use planning, tree planting, agricultural extension, and livelihood development, from 2005 to 2010.</p> <p>Selection of the target areas and sucos was appropriate because the areas in and around Comoro and Lacro watersheds were identified as the areas where forest degradation progressed despite the fact that Comoro watershed has a source of the domestic water for Dili City in its area while Lacro watershed is the catchment of one of the largest irrigation systems in the country. Meanwhile, Bemós and Noru sub-watersheds are located within Comoro and Lacro watersheds and prioritized in the short-term management plan under the Development Study. In the light of less developed transport infrastructure in Timor-Leste, identification of the target sucos from sucos less scattered in the sub-watersheds was also found adequate.</p> <p>Community-based natural resource management approach adopted by the Project is found appropriate since one of the key approaches proposed in the Forestry Sector Policy is community participation in protection of forests. The approach of the Project is characterized with various measures such as preparation of PLUP coupled with</p>

Criteria	Evaluation	Description
		institutionalization of suco regulations by making use of the traditional customs, regular monitoring meetings at suco and aldeia levels, selection and implementation of various micro programs by the participants in the programs, which are expected to contribute to both forest conservation and livelihood development, technology transfer through FFS with a two-phased approach (FFS at main demonstration plots and sub-demonstration plots), and use of local NGOs by assigning local staff at the suco level.
Effectiveness	High	<p>Judging from the achievement level of the Outputs, progress has been made in achieving the Project Purpose. Prospect of the achievement of the Project Purpose is high by the end of the Project cooperation period as an operational manual of CB-NRM, technical manuals on CB-NRM micro-program related techniques, and policy recommendations are scheduled to be finalized in July 2015 and approved and/or endorsed by DG of MAF towards the end of the Project cooperation period.</p> <p>Outputs 1 to 3 are expected to contribute to achievement of the Project Purpose. Logical relation between Outputs and the Project Purpose is found adequate.</p>
Efficiency	Moderate	<p>Progress has been made in producing Outputs, judging from the achievement level of its Indicators as well as the progress of the activities. In general, the Inputs have been appropriate in producing the Outputs in terms of timing, quality and quantity. Efficiency is considered moderate with the following specific remarks:</p> <p><u>Assignment of Experts and MAF Officials, and Activity Schedule:</u></p> <ul style="list-style-type: none"> - Experts have been mobilized as planned. With relatively small team structure, the works have been efficiently carried out. - At the time of the terminal evaluation, 20 MAF officials at MAF, NDFWM and Aileu District are engaged in the Project, but their involvement in the Project is somehow limited. - The Project mobilized local NGOs mainly for implementation of the activities at the suco level. Their field staff stationed at the sucos in order to closely monitor and report the Project activities for prompt actions to be taken. - Preparation of manuals and policy recommendations was originally planned in the final year of the Project cooperation period. However, timing of preparation was changed from the final year to 2013 based on the recommendation at the mid-term review in order to incorporate consultation process with relevant personnel and organizations before finalization of them. - Noru watershed management council was established in September 2014, one year before the Project is completed. It might be more functional if it were established earlier. However, it was only in 2014 when the concerned personnel of the Project realized necessity of setting-up a platform for discussions over natural resource management including both target sucos and non-target sucos. Although it was one year before the Project completion, it could pave the ways to provide a tool to manage the entire sub-watershed by involving in the activities of the council all the sucos and relevant parties within the sub-watershed. <p><u>Costs and Facility:</u></p> <ul style="list-style-type: none"> - The amount of local operation costs per suco can be calculated at four (4) million JPY per year. The amount is considered relatively high. However, the amount could be justified when taking into consideration various points specific to the Project: pilot nature of the Project, extensive mobilization of local NGOs throughout the target sucos while hands-on support was not usually expected from the Government services, and high transport costs required for implementation of the Project activities in mountainous areas. - Office space for JICA experts and Project activities has been made available at NDF office. Local expenses to cover transportation costs, allowances for the Project officers, expenses for meetings and workshops are not covered due to budget constraints. Transportation costs for the Project officers, expenses required for meeting at villages, meeting expenses of Noru Watershed Management Council, etc. have been covered by the JICA side. - The Project made effective use of traditional customs in the implementation process of the Project activities. Revival and/or application of the traditional customs have contributed to reduction of costs while maintaining effectiveness of the operations. <p><u>Use of the Outputs of the Previous Cooperation:</u></p> <ul style="list-style-type: none"> - The Project made use of outputs of the projects supported by Japan: JICA's Development Study on Community-Based Integrated Watershed Management in

Criteria	Evaluation	Description
		<p>the Target Area of the current Project (2005-2010); and Japan's Grant Aid Project "Forest Preservation Programme" (2011-2013).</p> <p><u>Coordination with Other Organizations:</u></p> <ul style="list-style-type: none"> - The Project coordinated with other projects/organizations: "Seeds of Life", a project of MAF supported by DFAT and Australian Center for International Agriculture Research; and a Japanese NGO active in the Target Area (i.e. PARCIC); and RECOFTC (Center for People and Forests).
Impact	Some positive impacts are expected to be observed.	<p><u>Impact at overall goal level:</u></p> <p>It is still early to assess the likelihood of achievement of the Overall Goal. However, some positive impact of the Project is expected to be observed. Attention should be paid to the following points:</p> <ul style="list-style-type: none"> - The suco leaders at the target sucos have observed reduction of the number of forest fires, illegal cutting and free grazing practices, which used to be caused by villagers within their sucos. This situation is likely to continue to prevail after completion of the Project because according to the interview conducted at the villagers during the terminal evaluation, the people in the sucos have found it economically beneficial to maintain CB-NRM mechanism. - Most of the registered beneficiaries continue to be engaged in the micro programs. According to the observations of villagers interviewed, their productivity has been surprisingly increased due to application of composts and construction of terraces. - Nature of CB-NRM is also considered suitable to maintain impacts of the Project since both suco regulations and micro-program techniques are not likely to disappear after the termination of supports from the Project. - Noru Watershed Management Council was established in 2014 in order to form a platform where the target as well as the neighboring sucos could have dialogues and take necessary action for sustainable natural resource management at the sub-watershed level. It is also considered to provide an institutional framework to scale up the CB-NRM mechanism from the suco level to the sub-district or sub-watershed level so as to protect watershed environment of the concerned river basins using the CB-NRM mechanism. Thus, the Council could possibly contribute to implementation of CB-NRM activities at new sucos and reduction of illegal activities. <p><u>Other impacts:</u></p> <ul style="list-style-type: none"> - One of the women groups assisted with income generating activities has established a saving and credit system in a group by making use of part of the benefits from sales of their products. The group saving and credit system is able to help the members improve their access to financial resources. - Two (2) NGOs have gone through all the processes of and procedures for implementation of CB-NRM at the suco level. They have been able to give guidance to other NGOs who conducted PLUP in the watershed other than the target area. - No negative impacts have been observed.
Sustainability	Sustainability is yet to be ensured sufficiently although it is expected on some aspects.	<p><u>Policy and Institutional aspects:</u></p> <ul style="list-style-type: none"> - CB-NRM mechanism has been developed and promoted by the Project in line with the strategies of the Forest Sector Policy (2008), such as "Forest Protection", "Community Participation", and "Watershed Conservation". Under the policy objective set in the community and private participation in forestry development, it is considered that effective community participation is expected to provide a lasting basis for forestry sector development. - CB-NRM mechanism has been developed by aligning it with the Forestry Sector Policy. Revising works of the said policy have been initiated by FAO. According to MAF, the policy relevant to the community participation in the forestry development is likely to remain unchanged. - There is no legal basis for NDFWM to promote CB-NRM so far. Under the Project, a ministerial order for promotion of the CB-NRM mechanism has been drafted, aiming at providing the guidelines and procedures for dissemination of the CB-NRM mechanism developed and demonstrated by the Project. - Many villagers expressed their willingness to observe suco regulations. As micro programs have generated some tangible benefits, villagers are willing to continue the micro programs, which support realization of the land use plans in the Project. <p><u>Organizational aspects:</u></p>

Criteria	Evaluation	Description
		<p>- Organizational strategy for continuous implementation and expansion of the CB-NRM after completion of the Project is not clear at the time of the terminal evaluation. There is no specific organization or department, especially responsible for CB-NRM in NDFWM and NDFC at present. As one of the policy recommendations is to establish a new department for CB-NRM/CBFM in NDFWM, NDFWM/NDFC and MAF may take into account establishment of a new department.</p> <p><u>Financial aspects:</u></p> <p>- A budget constraint is a major concern for the sustainability of the Project. So far, costs for the Timorese Project Personnel for field visits and the meetings outside their respective District have been born by the Japanese side upon request by the Timorese side. In addition, during the Project cooperation period, costs for field activities, including lunch costs for villagers to participate in the trainings and meetings for participatory land use planning, suco regulation monitoring, etc. are supported by Japanese side because of the pilot nature of the activities.</p> <p>- One of the policy recommendations drafted under the Project recommends enactment of the Forest Management Decree as an essential legal basis for MAF/NDFC/NDFC and other key stakeholders to pursue CB-NRM/CBFM (Community-Based Forest Management) with budgetary allocations.</p> <p>- On the other hand, one of the two NGOs having been engaged in the Project supported sucos with additional funds from other sources in order to continue its support to target sucos.</p> <p>- There are donor agencies that show their interests in applying CB-NRM to their projects as well. Possibility to collaborate with donors and NGOs should be sought to ensure the financial sustainability of the Project.</p> <p><u>Technical aspects:</u></p> <p>- Technical capacity of the Timorese project personnel has been enhanced. It is not certain, however, if the project personnel are able to maintain sufficient skills, knowledge and experiences after completion of the Project. The techniques transferred/introduced through the Project as well as the deliverables, including an operational manual of CB-NRM and technical manuals on micro-program related techniques, are expected to be relevant with the local needs and technical levels. Since the techniques are found economically viable and affordable based on observation of application of the techniques at their own field, likelihood of continuous utilization and dissemination of techniques is expected.</p>

Source: Report of the Joint Terminal Evaluation on the Project for Community Based Sustainable Naatural Reousrce Management in the Democratic Republic of Timor-Leste (2015)

Based on the results of the evaluation, the joint evaluation team made the following recommendations to the Project and MAF, respectively.

Recommendation to the Project and MAF from the joint evaluation team

a. Recommendations to the Project

Recommendations	Description
Preparation of user friendly manuals	The Project has drafted/ will draft outstanding manuals such as the technical manual, the operational manual, and a manual on establishment and operation of watershed management council. For the purpose of wide use of these manuals by Timor-Leste sides, the Project should develop the simple summaries of these manuals by the end of the Project. In addition these manuals themselves shall be more usefulness for practitioners of CB-NRM by showing various difficulties the Project has been faced and substantial solutions to overcome them, by the same time.
Development of public relations materials	The project has developed the operation mechanism of CB-NRM at suco level in the six (6) target sucos successfully. For the purpose of public relations targeting peoples in the Target Area and other watersheds, as well as stake holders such as related Timor-Leste government organizations, donors, and NGOs, the Project should develop the public relations material of the mechanism such as pamphlet by the end of the Project.
Development of a manual on establishment and operation of watershed management council	The Project has facilitated to establish the watershed management council of the Noru sub-watershed which was organized by the main members such as administrators of Remexio and Liquideo sub-district offices, and leaders of twelve (12) sucos. For the purpose of expansion of the operation mechanism of CB-NRM at suco level in the other sub-watersheds, the Project should develop a manual on establishment and operation of watershed management council by the end of the Project.

Source: Report of the Joint Terminal Evaluation on the Project for Community Based Sustainable Naautral Reoursrce Management in the Democratic Republic of Timor-Leste (2015)

b. Recommendations to MAF

Recommendations	Description
Realization policy recommendations	The Project prepared the draft policy recommendations to support and promote CB-NRM in the Target Area. These recommendations shall be realized in the next few years.
Monitoring of CB-NRM practices in the target sucos	Forest guards of MAF conduct the monitoring of implementation of CB-NRM in the target sucos, such as enforcement of the suco regulations and implementation of micro programs. To confirm the sustainability of CB-NRM practices in the sucos and feed-back the lessons-learned in further extension and development of the operational mechanism of CB-NRM, Timorese side should continue the monitoring after the termination of the Project.
Monitoring of the watershed management council of the Noru sub-watershed	The watershed management council of the Noru sub-watershed shall be continuously monitored after the termination of the Project and evaluate and analyze necessity and effectiveness of the council with in the coming one (1) year, since it has not well been examined yet.
Utilization of Japan's Grant Aid Project "Forest Preservation Programme"	The provided equipment such as vehicles, plotter and PCs etc. by Japan's Grant Aid Project "Forest Preservation Programme" (2011-2013) should be made available for appropriate utilization in the Project activities.
Improvement of the CB-NRM mechanism	The Project established the CB-NRM mechanism successfully. However, it seems rather difficult to be applied by the Timor-Leste government, other donors, and NGOs, since full implementation of it is time-consuming. For the purpose of rapid and wider extension of the CB-NRM mechanism to other sub-watershed and watershed, composition and/or sequence of it should be improved with maintaining its significant effectiveness.
Support of the Noru sub-watershed council	The neighbouring sucos of the target sucos are also beginning to interest in CB-NRM and requesting MAF for support of seedlings. Timorese side should give the proper support to them to increase such motivations.
Awareness raising of local residents in the Target Area	Timorese side should conduct raising awareness of residents in the Target Area, utilizing the public relation materials mentioned above, so that they may become to practice CB-NRM. The Project should give the proper indirect support to the working group.

Source: Report of the Joint Terminal Evaluation on the Project for Community Based Sustainable Naautral Reoursrce Management in the Democratic Republic of Timor-Leste (2015)

Chapter 8 Lessons Learned

8.1 Lessons Learned from Overall Project Management and Project Framework

The joint terminal evaluation team organized by JICA and MAF also identified and extracted the following lessons learned through reviews of overall management and framework of the Project.

Lessons on Overall Project Management and Project Framework

Lessons	Descriptions
Utilization of NGOs for disseminating impacts of the Project	The Project well utilized NGOs as the facilitation agencies and improved their capacity through the Project implementation, so that they can become to guide another NGOs to implement PLUP practice. The impact has produced since these NGOs have such nature that radically share their experiences with other organizations through their own networks. Utilization and, if it is necessary, capacity building of such NGOs should be considered in designing the other project when dissemination of introduced technology is expected, examining their own and networks' current and future financial, organizational, and technical capacities and potentials, as well as necessity of active or passive intervention of the project.
Utilization of NGOs in countries under developing capacity of government institution	Timor-Leste was independent just a decade ago and its government institutions are still under developing. Though, in many other countries, sustainability of results of projects are secured by financial, technical, and organizational capacity of the government institutions and, thus, projects are implemented with government counterparts expecting to strengthen their capacities. However, while designing the other projects in the rather young and under constructing countries, utilization of the other agencies, such as NGOs in this project, should also be considered as the second best solution, for securing actual and short-term effectiveness of project operation, though contribution to ensure long-term sustainability may be limited.
Importance of preliminary studies	Many of unique features of the Project, which highly contribute to produce Outcomes and realize Project Purpose successfully, such as utilization of capable NGOs, integration of traditional customs and systems, and application of cascade training methods, etc. were designed based on the findings of the Development Study (see 2-1). Without utilization of the results of such preliminary studies, the Project would have spent a lot of times for finding the better implementation ways and the outputs would be limited. For designing future products, it is important to identify the best implementation ways exactly suitable for each target areas, through carefully examining results of preliminary implemented studies in the specific areas, as long as they are available.
Selection of NGOs that have financial capacity	Two NGOs were employed under the Project. Both of them are national NGO, but the first one started as a local representative of an international NGO and later became independent as a national NGO. Through the selection process of NGOs, it was considered that this NGO had capacity to raise funds and relatively higher financial capacity, which could possibly lead to sustainable assistance to target groups during and even after completion of the Project. As one of the Project activities, the Project, in partnership with the first one, supported a group of farmers to establish a demonstration plot and assisted the group with upland farming techniques including compost-makings. Although the Project was ready to support the group members with animal pens upon request from the group, they had a policy not to provide farmers with domestic animals. Having known the Project policy, this NGO decided to provide a group of farmers with cows, which would be rotated among the members. The main purpose of providing the group with animals was to let the group collect cow dungs and exercise compost-makings out of them. In case of the second NGO, whose financial capacity was considered not as strong as that of the first one, this type of complementary assistance has not been observed. When capacity of NGOs is evaluated for employment under a project, assessment of their financial capacity, including their fund-raising abilities, should be included in the evaluation criteria. Employment of financially capable NGOs could possibly lead to enhancement of synergetic effects at a farmer level during and after the project period.
Establishment of a platform for watershed management including non-target villages of the project	The Project supported to establish the Watershed Management Council of the Noru sub-watershed as a platform where the relevant sucos can work on CB-NRM for sustainable watershed management. The non-target sucos in the Council have already began to actively working together with the target sucos. To accelerate dissemination of the concept of natural resource management to neighboring villagers of the target village of projects, establishment of such platform would be considered in the other projects.
Enhancement of efficiency of the	In the target areas of the Project, a traditional ceremony concerning ritual prohibitions and sanctions used to be practiced, but were no longer being exercised at the time when the Project

Lessons	Descriptions
Project activities by making use of traditional customs and practices	started. The Project revived and incorporated the ceremony into one of the steps, which would lead to preparation of PLUP for natural resource management. The Project helped villagers institutionalize the ceremony by codifying regulations with local resident's knowledge, which had been prepared and agreed at the suco meetings, and by facilitating processes of monitoring and reporting illegal activities for villagers. It was found that the institutionalization of the local rules with the traditional ceremony would be effective in orienting rural communities toward the sustainable forests and natural resources management. The Project also paid close attention to reciprocal labor exchanges, which have been traditionally practiced in the target areas of the Project. Such traditions are used when laborious farming techniques are applied and implemented at individual farms. To enhance efficiency of projects, use of the traditional customs and practices should be considered in the other projects.
Effectiveness of utilization of local material	In the implementation of micro program such as reforestation programme, the Project used the local material such as bamboo, palm leaves, woods for construction of nursery in the demonstration plots. At the result, local residents were easy to start the individual plot such as nursery using the local material. Utilization of local material shall be considered in designing effective extension of the demonstration activities to individuals.
Existence of staffs of facilitating agencies in remote target villages	In the implementation of micro program in the target suco, NGO staff stayed in the suco for setting the demonstration plots such as terrace farming and supported villager for implementation of activities. Smooth monitoring for practices of villagers and timely supports within the suco produced the excellent outputs, since existence of such staffs can encourage the participants of the Project. Advantage of allocation of such close focal points in project sites should be well considered when designing implementation system of future projects.

Source: Report of the Joint Terminal Evaluation on the Project for Community Based Sustainable Naaural Reoursce Management in the Democratic Republic of Timor-Leste (2015)

8.2 Lessons Learned from the Project Activities

On the other hand, the JICA Project Team extracted lessons from the conducts of the project activitis as shown below.

Lessons Learns from the Project Activities

a. Under Output 1

Lessons	Descriptions
Allocation of adequate time	Introduction of the village regulations is a time-consuming task as it is a process of making a village system and building the capacity of village leaders. Hence, there is a need to allocate adequate time for this process, especially for introduction and institutionalization of the village regultions. The same can be said to agricultural and forestry extension, as it takes times for communities to accept and digest new techniques. Many of them do not apply techniques until they feel sure that such techniques could benefit them.
Removal of hindrances	It is, however, true that communitues may not necessarily be able to change their conventional practices even though they realize the effectiveness of new techniques due to exiting limitations and difficultie, such as a shortage of laborforce and a lack of farm tools. It is, therefore, improtant to iron out such limitations that would hinder communities from applying techniques simultaneously with provision of hands-on training on techniques in the field.
Deployment of local staff	It is important to build trustful relationship between the project and local communities. Use of local resources and deployment of local staff at the village level, preferably at the aldeia level, is requisite for building up trustful relations with local communities.
Involvement of a wide range of communities	In order to make the CB-NRM mechanism effective for a wide range of social layers in sucos, it is important to give chances to take part in the project activities as many communities in sucos as possible. The more communities have benefit from the project, the more communities follow the CB-NRM mechanism.
Securing of opportunities for training among communities	It has not been easy to gather many communities at one place (such as a demonstration plot) on a regular basis, as the majority of communities live far from the center of suco or aldeia in general. Hence, it is necessary to organize FFSs at least at the aldel level so that many communities could participate in the micro program activities.

Lessons	Descriptions
Utilization of the traditional collective working system for agricultural extension	It is difficult to expect that communities would apply agricultural techniques automatically after hands-on training courses, even though they appreciate the effectiveness of the techniques that they learn from training. Integration of the traditional collective working system into the extension method is one of the possible options to facilitate the application of techniques among communities.
Introduction of a process approach	The key principle of CB-NRM is not to apply the pre-set framework to the local setting but to develop a framework/mechanism through a series of interactions with local communities. A certain level of flexibility was required to develop effective CB-NRM frameworks/mechanisms functional under the respective local settings of the target sucos.

b. Under Output 2

Lessons	Descriptions
Set-up of the realistic targets	It is important to set realistic targets of the capacity development plan for the government officers based on the current level of the capacities of the respective target groups as well as the timeframes given for the activities.
Security of necessary support	There was a need to clear the hurdles which hindered the counterparts from taking part in the capacity development activities to ensure their participation in the training activities. Due consideration should be given to allocation of allowance/per diem and security of transportation means. (even between MAF office in Comoro and NDF office in Caicoli) for trainees.
Importance of showing actual results in the field	Since CBNRM or community forestry was still new to most of the officers in NDFWM/NDNC, it was quite difficult for them to have a clear picture of CBNRM/community forestry without observing the results made in the field. Under such circumstances, seminar-type training activities were not necessarily effective in enhancing the capacity of MAF officers. In fact, the interest in the CBNRM activities among the counterparts had been increased as they observed actual results of the CB-NRM mechanism in the field.
Sharing of responsibility with government officials in a phased manner	It is essential to share a certain responsibilities for implementation of the project with the counterparts / MAF officers so that they would foster a sense of ownership of and responsibility for the project. However, tasks should be given to the MAF officers in a phased manner over the course of the project based on the levels of interest and understanding.

c. Under Output 3

Lessons	Descriptions
Ensuring of involvement of NDF officers in the process of policy making and continuous discussions	Involvement of a wide range of NDF officers in the process of making the policy recommendations and the draft ministerial order contributed to enhancement of a sense of ownership of the documents among NDF officers.
Institutional development based on field experiences	The policy documents as well as manuals have become rather practical and convincing as they were prepared on the basis of results and experiences in the field. Development of a model in the field also helped MAF/NDF and other stakeholders have better understanding of CB-NRM. It would have been difficult for them to have meaningful/fruitful discussions if there had been no actual model in the field as the concept had been still new to the majority of MAF/NDF officers.

Source: JICA Project Team (2015)

Chapter 9 Recommendations

9.1 Recommendations given by the Terminal Evaluation Team

As described in Chapter 7, the following recommendations made by the joint terminal evaluation teams to ensure the sustainability of the project effectiveness as well as achieve the overall goal of the Project.

Recommendations made by the Terminal Evaluation Teams

Recommendations	Description
Realization policy recommendations	The Project prepared the draft policy recommendations to support and promote CB-NRM in the Target Area. These recommendations shall be realized in the next few years.
Monitoring of CB-NRM practices in the target sucos	Forest guards of MAF conduct the monitoring of implementation of CB-NRM in the target sucos, such as enforcement of the suco regulations and implementation of micro programs. To confirm the sustainability of CB-NRM practices in the sucos and feed-back the lessons-learned in further extension and development of the operational mechanism of CB-NRM, Timorese side should continue the monitoring after the termination of the Project.
Monitoring of the watershed management council of the Noru sub-watershed	The watershed management council of the Noru sub-watershed shall be continuously monitored after the termination of the Project and evaluate and analyze necessity and effectiveness of the council with in the coming one (1) year, since it has not well been examined yet.
Utilization of Japan's Grant Aid Project "Forest Preservation Programme"	The provided equipment such as vehicles, plotter and PCs etc. by Japan's Grant Aid Project "Forest Preservation Programme" (2011-2013) should be made available for appropriate utilization in the Project activities.
Improvement of the CB-NRM mechanism	The Project established the CB-NRM mechanism successfully. However, it seems rather difficult to be applied by the Timor-Leste government, other donors, and NGOs, since full implementation of it is time-consuming. For the purpose of rapid and wider extension of the CB-NRM mechanism to other sub-watershed and watershed, composition and/or sequence of it should be improved with maintaining its significant effectiveness.
Support of the Noru sub-watershed council	The neighbouring sucos of the target sucos are also beginning to interest in CB-NRM and requesting MAF for support of seedlings. Timorese side should give the proper support to them to increase such motivations.
Awareness raising of local residents in the Target Area	Timorese side should conduct raising awareness of residents in the Target Area, utilizing the public relation materials mentioned above, so that they may become to practice CB-NRM. The Project should give the proper indirect support to the working group.

Source: Report of the Joint Terminal Evaluation on the Project for Community Based Sustainable Natural Resource Management in the Democratic Republic of Timor-Leste (2015)

9.2 Recommendations given by the JICA Project Team

Besides, the JICA Project Team further proposes the following actions and interventions that MAF should take into account for achievement of the overall goal of the Project as well as expansion of CB-NRM in an effective and manner.

Recommendations proposed by the JICA Project Team

Recommendations	Description
Development of key players in expansion of CB-NRM	Development of human resources is an urgent issue to be addressed to lay a foundation for expansion of the CB-NRM mechanism. A lack of operational actors who can replicate the process of introduction of the CB-NRM mechanism in the field is one of the crucial hindrances to expansion of CB-NRM at this moment. The focus of capacity development should be put on not only the public sector, such as NDFWM and MAF, but also the private sector, such as NGOs. Both sides will play important but different roles. NDFWM and MAF will be the main implementing agency of the Government who will be responsible for planning and arrangement of a program of CB-NRM, while NGOs will be the main facilitators who will work with local communities in the field. It is, therefore, important to provide more opportunities for both of them to learn the process in the field.
Finalization and approval of the new ministerial order for promotion of	As recommended by the terminal evaluation team, it is necessary to realize the policy recommendations for further expansion of CB-NRM. Among others, the

Recommendations	Description
the CB-NRM mechanism	ministerial order attached to the policy recommendations should be finalized and approved by MAF as an official document. The ministerial order would enable NDFWM to get support from MAF and collaborate with other key stakeholders, such as MAF development partners and NGOs, for promotion of the CB-NRM mechanism.
Encouragement of MAF development partners to integrate the CB-NRM mechanism into their programs/projects.	MAF might not be able to approve the new ministerial order until the GoTL officilly enacts the forestry law, which is still under discussions in the ministry. Hence, it is hard to expect that NDFWM could have sufficient support from MAF for expansion of CB-NRM for the time being. In order to promote CB-NRM, it is, therefore, important to encourage the MAF development partners including NGOs to integrate the process of introduction of the CB-NRM mechanism into activities of their projects/programs.
Utilization of the Project materials	The materials developed by the Project, such as the operation manual, technical manuals, quick references, and CB-NRM pamphlet should be utilized by a wide range of stakeholders working in the forestry and agriculture sectors in Timor-Leste. These documents are effective in not only protecting forest resources from illegal exploitation but also improving agricultural production in hilly and mountanous areas in Timor-Leste.

Source: JICA Project Team (2015)

Table and Figure

Table 1 The Latest Project Design Matrix (PDM) (Ver. 3)

Project Title: The Project for Community-Based Sustainable Natural Resource Management

PDM ver. 3 (approved on Jul 23, 2015)

Implementing Agency: National Directorate of Forestry (NDF). Ministry of Agriculture and Fisheries (MAF)

Duration: Five (5) years from the date of the first dispatch of expert(s)

Target Area: Areas in and around the Comoro and Lacle Watersheds

Project Site: Six selected *sucos* in the Target Area (*1)

Target Group: Relevant personnel of National Directorate of Forestry (NDF) and District Directorates of MAF in the target area, and the local residents in the Project sites

Super Goal: Watershed management is introduced in the major river systems in Timor-Leste

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p><u>Overall Goal</u> Community-based sustainable natural resource management (CB-NRM) is practiced in the Target Area.</p>	<p>a. CB-NRM activities following the operational mechanism developed by the Project are implemented in at least 5 new <i>sucos</i> in the target area by the end of 2018. b. In all of the new <i>sucos</i>, cases of forest fires, illegal cutting, and illegal grazing are found to be decreased compared with the time without the regulations according to the observation of the respective <i>suco</i> regulation committees c. In all of 6 <i>sucos</i> of the Project sites, cases of forest fires, illegal cutting, and illegal grazing are not increased compared with the time of the Project completion according to the observation of the respective <i>suco</i> regulation committees. d. In all of 6 <i>sucos</i> of the Project sites, more than 70 % of the registered beneficiaries at the end of 2018 engage in the <u>micro program</u> activities, such as sustainable upland farming and reforestation.</p>	<p>a. Annual reports of NDF and district directorates of MAF b&c Record of the <i>suco</i> regulation committee meetings d Monitoring report kept by MAF</p>	<p>* There is no drastic change in the direction of the policies of the government related to the natural resource management.</p>
<p><u>Project Purpose</u> An operational mechanism (*2) of CB-NRM at <i>suco</i> level is developed.</p>	<p>a. By the Project end, an operational manual of CB-NRM for the Target Area, which clarifies the procedures for implementation of CB-NRM at village level as well as roles/responsibilities of the stakeholders, is approved by Director General (DG) of MAF b. By the Project end, technical manuals on CB-NRM micro program related techniques for the Target Area are approved by DG of MAF c. By the Project end, the draft policy recommendations to support and promote CB-NRM in the Target Area are endorsed by DG of MAF for approval by Secretary of State for Forest and Nature Conservation d. By the Project end, on average, more than 75 % (three-quarter) of the Project Personnel of NDF and MAF reach at least the second best level of five (5)-level evaluation rating set by the Project for the items identified in the respective capacity development plans, which are in line with their roles/responsibilities in CB-NRM</p>	<p>a. Date of approval of the manual b. Date of approval of the manual c. Date of endorsement of the recommendations d Results of assessment made by the Project</p>	<p>* NDF makes efforts to further expand CB-NRM through the operational mechanism developed by the Project. * The Implementing agencies and relevant stakeholders continue to support the CB-NRM in the target area.</p>
<p><u>Outputs</u> 1. Land use plans are agreed upon and implemented by local residents in accordance with relevant <i>suco</i> regulations.</p>	<p>1a By September 2012, in all target <i>sucos</i>, participatory land use plans (PLUPs) with the <i>suco</i> regulations are agreed by the respective <i>suco</i> regulation ceremonies 1b At the Project end, in all target <i>sucos</i> where the <i>suco</i> regulations are introduced, annual number of forest fires, illegal cutting, and crop damage made by free grazing are found to be decreased according to the observation of the respective <i>suco</i> regulation committees 1c At the Project end, in all target <i>sucos</i>, more than 80% of the registered beneficiaries of reforestation, sloping agriculture/agroforestry, and alternative livelihood activities each under the micro programs in the second-rotation of training consider that the concerned activity has contributed to their livelihood improvement.</p>	<p>1a Project Records 1b Progress report of each micro program 1c Record of the <i>suco</i> regulation committee meetings 1d Results of evaluation of each micro program</p>	<p>* The trained personnel continue working in the Project sites. * There is no drastic change in the organizational structures of MAF district directorates.</p>
<p>2. The staff of the Implementing agency and relevant stakeholders (*3) are trained to support CB-NRM.</p>	<p>2a All of the topics related to CB-NRM, identified through the training needs assessment, are covered by the training, including technical & planning seminars, and on-the-job training. 2b On average, the technical seminar participants give 4 points on a five-point scale about "understandability of materials", "clearness of explanation", and "relevancy of topic " of the concerned seminars 2c At the Project end, on average, the Project Personnel of NDF and MAF evaluate their understanding about the training topics as at least middle on three-point scale. 2d Annual work plans to support and promote CB-NRM in the Target Area are formulated by the concerned NDF and MAF district officers for the years 2013- 2016. 2e By June 2015, final draft of the technical manuals on CB-NRM for the Target Area are developed in consultation with the relevant technical National Directorates of MAF 2f By the Project end, the facilitating agencies in the Target Area involved in the Project</p>	<p>2a-Training records 2b Results of post-training evaluation 2c Results of self-assessment at feedback seminar 2d The plans submitted to NDF 2e Date on the final draft submitted to NDF 2f Results of assessment made</p>	

	become able to assume roles/responsibilities clarified in the operational manual of CB-NRM according to the criteria set by the Project. 2g By the Project end, all the <i>sucos</i> regulation committees of the target <i>sucos</i> become able to assume roles/responsibilities clarified in the operational manual of CB-NRM according to the criteria set by the Project.	by the Project 2g ditto	
3. Effective processes with roles of stakeholders to support CB-NRM are identified.	3a By June 2015, final draft of the operational manual of CB-NRM for the Target Area is developed in consultation with NDSACD 3b By June 2015, the draft policy recommendations to support and promote CB-NRM in the Target Area are developed in consultation with the relevant stakeholders	3a Date on the final draft submitted to NDF 3b Date of submission of the draft to NDF	

Activities	Inputs		Important Assumptions
1-1 Organize initial meetings in the Project sites. 1-2 Conduct participatory village profiling in the Project sites. 1-3 Conduct participatory land use planning with formulation of relevant <i>suco</i> regulations 1-4 Facilitate local residents in the Project sites to implement the micro programs (*4) prioritized in line with the land use plans. 1-5 Monitor and evaluate CB-NRM in the Project sites. 1-6 Organize field seminars and/or workshops for information sharing among the target <i>sucos</i> and technical dissemination to local residents in the neighboring <i>sucos</i> 1.7 Establish the watershed management council of the Noru watershed as a platform where the relevant <i>sucos</i> can work on CB-NRM for sustainable watershed management. 2-1 Gather and compile useful CB-NRM practices and technologies applicable to the situation of the target area. 2-2 Plan and conduct the training on CB-NRM for the technical staff of the Implementing agency and relevant stakeholders. 2-3 Organize planning seminars on CB-NRM 2-4 Organize feedback seminars on CB-NRM. 2-5 Prepare technical manuals on CB-NRM. 3-1 Prepare an operational manual on the processes to support CB-NRM with roles of stakeholders, reflecting the results of monitoring and evaluation of CB-NRM, including the micro programs implemented in the Project sites. 3-2 Develop draft policy recommendations 3-3 Organize a workshop to present the recommendations to relevant institutions and stakeholders.	Timor-Leste Side - Project Director - Project Manager - Project personnel - Supporting staff - Project Office at NDF - Operational costs	Japanese Side - Dispatch of Experts a. Chief Advisor b. Administrative Coordinator c. Experts in the relevant fields such as: *Participatory Natural Resource Management * Agro-forestry/Sloping Agriculture * Soil and Water Conservation and other relevant fields - Training of project personnel in Japan and/or the 3rd country - Machinery and equipment * Vehicle(s) * Computer(s) * Machinery, equipment and materials for CB-NRM and training activities - Operational cost (when needs arise)	* There is no unpredicted conflict among the local residents in the Project sites that hampers the implementation of the Project activities. * The local government administrations are supportive to the Project activities. * Serious natural disasters or drastic climatic problems do not occur in the target area. Pre-Conditions * There is no security problem in Timor-Leste, particularly in the target area of the Project. * The local residents in the Project sites are willing to participate in the Project activities.

Notes:

*1: Project sites are the *sucos* (the lowest local government units) where the activities for the Output 1 are carried out.

*2: Operational mechanism is embodied in the endorsed and practiced manual on the processes with roles of stakeholders to support CB-NRM, technical manuals on CB-NRM, and the policy recommendations. Capacity of the staff of NDF and District MAF to support and promote CB-NRM is integral part of the mechanism.

*3: Personnel of the relevant national directorate-of MAF, district office of MAF in the target area and other facilitating agencies, such as NGOs working in the target area.

*4: The micro programs are the specific activities undertaken by the local residents to support realization of the land use plans in the Project sites, such as reforestation, sloping agriculture/agro-forestry, alternative livelihood and so forth.

Table 2 The Latest Plan of Operations (PO) (Ver. 3.1)

Project Title: Project for Community-Based Sustainable Natural Resource Management
 Overall Goal: Community-based sustainable natural resource management (CB-NRM) is practiced in the target area.
 Project Purpose: An operational mechanism of CB-NRM at *suco* level is developed.
 Project Period: Five (5) years from the date of the first dispatch of expert(s)

Activities	Expected Outputs (Milestones)	TFY2011					TFY2012					TFY2013					TFY2014					TFY2015					Responsibility	Input			Remarks
		Q1		Q2		Q3		Q4		Q1		Q2		Q3		Q4		Q1		Q2		Q3		Q4		Human resources		Equipment	Budget		
Preparatory Activities																															
0-1 Conduct kick off meeting / introductory seminar on the Project.	CP's understanding of the project (Minutes of meeting)																											JE	JP: CA TL: Director of NDF, MAF CP	JP: - TL: -	JP: Operational cost TL: -
0-2 Review and revision of the draft PDM and PO	Revised PDM and PO (ditto)																											MAF CP, JE	JP: CA, Co-CP TL: MAF CP (NDF)	JP: - TL: -	JP: Operational cost TL: -
0-3 Identify the roles of the facilitating agencies.	Short-list of NGOs (ditto)																											MAF CP, JE	JP: CA, Co-CA TL: MAF CP (NDF)	JP: - TL: -	JP: Operational cost TL: -
0-4 Select the facilitating agencies to assist field activities in the Project sites.	NGOs selected (ditto)																											MAF CP, JE	JP: CA, Co-CA TL: MAF CP (NDF)	JP: - TL: -	JP: Operational cost TL: -
0-5 Prepare the terms of references of the facilitating agencies.	Terms of reference for the NGOs (ditto)																											MAF CP, JE, FA	JP: CA, Co-CA TL: MAF CP (NDF)	JP: - TL: -	JP: Operational cost TL: -
0-6 Select the Project sites.	the Project sites (Results of selection)																											MAF CP, JE	JP: CA, Co-CA, PC, Local PC TL: MAF CP (NDF)	JP: Vehicles TL: Transportation means	JP: Operational cost TL: Operational cost
Output 1: Land use plans are agreed upon and implemented by local residents in accordance with relevant <i>suco</i> regulations.																															
1-1 Organize initial consultative meetings in the Project sites.																															
1-1-1 Arrange <i>suco</i> meeting/workshop in each Project site.	Date of meetings (ditto)																												JP: Local PC TL: MAF CP (NDF & District)	JP: Vehicles TL: Transportation means	JP: Operational cost TL: Operational cost
1-1-2 Explain general purpose and planned activities of the Project	Local leaders' understanding of the project (Materials for meetings)																												JP: CA, Co-CA, PC, Local PC TL: MAF CP (NDF & District)	JP: Vehicles TL: Transportation means	JP: Operational cost TL: Operational cost
1-1-3 Confirm the willingness of the <i>suco</i> leaders as well as other community members to participate in the project	Local leaders' consent (Memo of meetings)																												JP: CA, Co-CA, PC, Local PC TL: MAF CP (NDF & District)	JP: Vehicles TL: Transportation means	JP: Operational cost TL: Operational cost
1-2 Conduct participatory village profiling in the Project sites.																															
1-2-1 Arrange <i>suco</i> workshop in each Project site.	Schedule of workshops (ditto)																												JP: FA (NGOs) TL: -	JP: - TL: -	JP: Project implementation cost TL: -
1-2-2 Facilitate the workshop to grasp the current conditions of natural resources and land use.	Results of discussions (Results of PRA)																												JP: FA (NGOs) TL: -	JP: - TL: -	JP: Project implementation cost TL: -
1-2-3 Identify problems and possible measures to be taken by the local residents.	Issues and necessary action of sustainable NRM (Results of PRA)																												JP: FA (NGOs), CA, Co-CA, UFT/LD Ex, A/R Ex TL: MAF CP (NDF & District)	JP: Vehicles TL: Transportation means	JP: Project implementation cost, Operational cost TL: Operational cost
1-2-4 Assist the <i>suco</i> leaders to build consensus among the <i>suco</i> residents on development of the land use plans and relevant <i>suco</i> regulations.	Local leaders' consent (Results of PRA)																												JP: FA (NGOs), CA, Co-CA, UFT/LD Ex, A/R Ex TL: MAF CP (NDF & District)	JP: Vehicles TL: Transportation means	JP: Project implementation cost, Operational cost TL: Operational cost
1-3 Conduct participatory land use planning with formulation of relevant <i>suco</i> regulations.																															
1-3-1 Assist the <i>suco</i> leaders to prepare the land use plans and to draft the <i>suco</i> regulations with due deliberation.	Draft future land use plan and <i>suco</i> regulations (ditto)																												JP: FA (NGOs), CA, Co-CA, Local PC TL: MAF CP (NDF & District)	JP: Vehicles, Aerial photos TL: Transportation means	JP: Project implementation cost, Operational cost TL: Operational cost
1-3-2 Facilitate the <i>suco</i> leaders to obtain endorsement on the draft land use plans and <i>suco</i> regulations by <i>suco</i> councils, traditional leaders, other local communities and local government administration.	Finalized future land use plan and <i>suco</i> regulations (ditto)																												JP: FA (NGOs), CA, Co-CA, Local PC TL: MAF CP (NDF & District)	JP: Vehicles TL: Transportation means	JP: Project implementation cost, Operational cost TL: Operational cost
1-3-3 Organize <i>Tara Bandu</i> ceremonies in the Project sites.	<i>Tara bandu</i> ceremony (Memos of ceremonies)																												JP: FA (NGOs), Local PC TL: MAF CP (NDF & District)	JP: Vehicles TL: Transportation means	JP: Project implementation cost, Operational cost TL: Operational cost
1-3-4 Distribute materials and signboards on the land use plans and <i>suco</i> regulations in and around the Project sites.	Singboards (ditto)																												JP: FA (NGOs), Local PC TL: -	JP: Materials for singboard TL: -	JP: Project implementation cost, Operational cost TL: -
1-3-5 Assist the <i>suco</i> leaders in implementing the <i>suco</i> regulations and solving issues using the regulations.	Reduction of forest fires (Memos of meetings)																												JP: FA (NGOs), CA, Co-CA, Local PC TL: MAF CP (NDF & District)	JP: Vehicles TL: Transportation means	JP: Project implementation cost, Operational cost TL: Operational cost

Activities	Expected Outputs (Milestones)	TFY2011			TFY2012				TFY2013				TFY2014				TFY2015			Responsibility	Input			Remarks	
		10			JFY2011				JFY2012				JFY2013				JFY2014				JFY2015				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2		Q3	Human resources	Equipment		Budget
1-4 Facilitate local residents in the Project sites to implement the micro programs prioritized in line with the land use plans.																									
1-4-1 Organize <i>suco</i> workshops to identify and prioritize the micro programs.	List of priority micro projects (ditto)																			MAF CP, FA, JE	JP: FA (NGOs), CA, Co-CA, UFT/LD Ex, A/R Ex TL: MAF CP (NDF & District)	JP: Vehicles TL: Transportation means	JP: Project implementation cost, Operational cost TL: Operational cost		
1-4-2 Organize interest groups for implementation of the micro programs.	Beneficiaries' groups (Member lists)																		JP: FA (NGOs), CA, Co-CA, UFT/LD Ex, A/R Ex TL: MAF CP (NDF & District)		JP: Vehicles TL: Transportation means	JP: Project implementation cost, Operational cost TL: Operational cost			
1-4-3 Develop work plans of the micro programs in a participatory manner.	Work plans (ditto)																		JP: FA (NGOs), CA, Co-CA, UFT/LD Ex, A/R Ex TL: MAF CP (NDF & District)		JP: Vehicles TL: Transportation means	JP: Project implementation cost, Operational cost TL: Operational cost			
1-4-4 Conduct training for the group members on topics relevant to the respective <u>micro programs</u> .	Training courses (Number of participants)																		JP: FA (NGOs), CA, Co-CA, UFT/LD Ex, A/R Ex TL: MAF CP (NDF, other NDs, and District)		JP: Vehicles, Training materials TL: Transportation means	JP: Project implementation cost, Operational cost TL: Operational cost			
1-5 Monitor and evaluate CB-NRM in the Project sites.																									
1-5-1 Conduct regular visits to monitor the progress of the micro programs.	Monitoring reports (ditto)																			MAF CP, FA, JE	JP: CA, Co-CA, UFT/LD Ex, A/R Ex, PC, Local PC TL: MAF CP (NDF, other NDs, and District)	JP: Vehicles TL: Transportation means	JP: Operational cost TL: Operational cost		
1-5-2 Monitor the progress in CB-NRM.	Monitoring reports (ditto)																		JP: CA, Co-CA, UFT/LD Ex, A/R Ex, PC, Local PC TL: MAF CP (NDF, other NDs, and District)		JP: Vehicles TL: Transportation means	JP: Operational cost TL: Operational cost			
1-5-3 Conduct participatory evaluation on each micro program among the group members.	Results of evaluation (ditto)																		JP: FA (NGOs), CA, Co-CA, UFT/LD Ex, A/R Ex, PC, Local PC TL: MAF CP (NDF, other NDs, and District)		JP: Vehicles TL: Transportation means	JP: Project implementation cost, Operational cost TL: Operational cost			
1-5-4 Facilitate technical staff of district directorates of MAF to prepare plans to support the CB-NRM and micro programs with proper estimation of budget and human resource requirements.	Annual work plans (ditto)																		JP: CA, Co-CA, Local PC TL: MAF CP (NDF, other NDs, and District)		JP: Vehicles TL: Transportation means	JP: Operational cost TL: Operational cost			
1-6 Organize project information sharing seminars and/or workshops for information sharing among the target <i>sucos</i> and technical dissemination to local residents in the neighboring <i>sucos</i>.																									
1-6-1 Discuss and formulate a plan of the field project information sharing seminars.	Plan of the field seminar (ditto)																			MAF CP, FA, JE	JP: FA (NGOs), CA, Co-CA, Local PC TL: MAF CP (NDF, other NDs, and District)	JP: Vehicles TL: Transportation means	JP: Project implementation cost, Operational cost TL: Operational cost		
1-6-2 Assist the <i>suco</i> leaders and group leaders to prepare the presentation.	Presentation materials (ditto)																		JP: FA (NGOs), CA, Co-CA, Local PC TL: MAF CP (NDF, other NDs, and District)		JP: Vehicles TL: Transportation means	JP: Project implementation cost, Operational cost TL: Operational cost			
1-6-3 Organize project information sharing seminars among the target <i>sucos</i>	Field seminars (Memos of seminars)																		JP: FA (NGOs), CA, Co-CA, Local PC TL: MAF CP (NDF, other NDs, and District)		JP: Vehicles, Powerpoint TL: Transportation means	JP: Project implementation cost, Operational cost TL: Operational cost			
1-6-4 Conduct field seminars in the Project sites by inviting local residents of the neighboring <i>sucos</i> .	Field seminars (Memos of seminars)																		JP: FA (NGOs), CA, Co-CA, Local PC TL: MAF CP (NDF, other NDs, and District)		JP: Vehicles, Powerpoint TL: Transportation means	JP: Project implementation cost, Operational cost TL: Operational cost			

Activities	Expected Outputs (Milestones)	TFY2011			TFY2012				TFY2013				TFY2014				TFY2015			Responsibility	Input			Remarks	
		10	JFY2011			JFY2012				JFY2013				JFY2014				JFY2015			Human resources	Equipment	Budget		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2						Q3
1-7 Establish the watershed management council of the Noru watershed as a platform where the relevant sucos can work on CB-NRM for sustainable watershed management.																									
1-7-1 Consultation with the relevant stakeholders	Memo of the meetings																			MAF CP, FA, JE	JP: FA (NGOs), CA, Co-CA, Local PC TL: MAF CP (NDF and District)	JP: Vehicles TL: Transportation means	JP: Meeting cost, Operational cost TL: Operational cost		
1-7-2 Finalize the membership and by-laws of the watershed management council in consultation with the leaders of sucos concerned with the Noru watershed	Resolution of the watershed management council																		MAF CP, FA, JE	JP: FA (NGOs), CA, Co-CA, Local PC TL: MAF CP (NDF and District)	JP: Vehicles TL: Transportation means	JP: Meeting cost, Operational cost TL: Operational cost			
1-7-3 Hold a regular meeting of the watershed management council and discuss issues on natural resource management in the watershed periodically.	Minutes of the meetings																		MAF CP, FA, JE	JP: FA (NGOs), CA, Co-CA, Local PC TL: MAF CP (NDF and District)	JP: Vehicles, Powerpoint TL: Transportation means	JP: Meeting cost, Operational cost TL: Operational cost			
1-7-4 Assist the watershed management council in the preparation of the watershed management plan of the Noru watershed.	Watershed management plan of the Noru watershed																		MAF CP, FA, JE	JP: FA (NGOs), CA, Co-CA, Local PC TL: MAF CP (NDF and District)	JP: Vehicles, Powerpoint TL: Transportation means	JP: Meeting cost, Operational cost TL: Operational cost			
Output 2: The staff of the implementing agency and relevant stakeholders are enhanced to support CB-NRM.																									
2-1 Gather and compile useful CB-NRM practices and technologies applicable to the situation of the target area.																									
2-1-1 Collect and review the information on successful practices and technologies on CB-NRM.	List of documents (ditto)																		MAF CP, JE	JP: CA, Co-CA, UFT/LD Ex, A/R Ex TL: MAF CP (NDF)	JP: - TL: -	JP: Operational cost TL: -			
2-1-2 Select the technologies and practices applicable to the Project sites.	Recommended technologies and practices (ditto)																		MAF CP, JE	JP: CA, Co-CA, UFT/LD Ex, A/R Ex TL: MAF CP (NDF)	JP: - TL: -	JP: Operational cost TL: -			
2-1-3 Compile the resource materials.	Resource materials (ditto)																		MAF CP, JE	JP: CA, Co-CA, UFT/LD Ex, A/R Ex TL: MAF CP (NDF)	JP: - TL: -	JP: Operational cost TL: -			
2-1-4 Translate the resource materials into Tetun language.	Resource materials in tetun (ditto)																		MAF CP, JE	JP: Local PC TL: MAF CP (NDF)	JP: - TL: -	JP: Operational cost TL: -			
2-2 Plan and conduct the training on CB-NRM for the technical staff of the implementing agency and relevant stakeholders.																									
2-2-1 Identify the target personnel of the capacity development and training.	List of counterparts (ditto)																		MAF CP, FA, JE	JP: CA, Local PC TL: MAF CP (NDF)	JP: - TL: -	JP: Operational cost TL: -			
2-2-2 Conduct training needs assessment (TNA).	Results of TNA (ditto)																		MAF CP, FA, JE	JP: Co-CA, Local PC TL: MAF CP (NDF & District)	JP: Vehicles, Powerpoint TL: Transportation means	JP: Operational cost TL: Operational cost			
2-2-3 Formulate training programs for technical staff of NDF and relevant stakeholders.	Training plan (ditto)																		MAF CP, FA, JE	JP: CA, Co-CA, Local PC TL: MAF CP (NDF & District)	JP: - TL: -	JP: Operational cost TL: -			
2-2-4 Conduct in-house training courses on selected practices and technologies on CB-NRM using the resource materials developed through activity 2-1.	Training courses (Number of participants)																		MAF CP, FA, JE	JP: CA, Co-CA, UFT/LD Ex, A/R Ex, PC, Local PC TL: MAF CP (NDF & District)	JP: Vehicles, Powerpoint TL: Transportation means	JP: Operational cost TL: Operational cost			
2-2-5 Conduct the on-the-job training (OJT) in line with the CB-NRM activities in the Project sites.	On-the Job Training (Monitoring reports)																		MAF CP, FA, JE	JP: CA, Co-CA, UFT/LD Ex, A/R Ex, PC, Local PC TL: MAF CP (NDF & District)	JP: Vehicles, Powerpoint TL: Transportation means	JP: Operational cost TL: Operational cost			
2-3 Organize feedback seminars on CB-NRM.																									
2-3-1 Organize feedback seminars at district directorates of MAF to review the experiences in the Project activities.	Results of discussion (Memo of seminars)																		NDF CP, DD CP, JE	JP: CA, Co-CA, PC, Local PC TL: MAF CP (NDF & District)	JP: Vehicles, Powerpoint TL: Transportation means	JP: Operational cost TL: Operational cost			
2-3-2 Facilitate the technical staff to formulate work plans to support CB-NRM in their areas of jurisdiction.	Work plans (ditto)																		NDF CP, DD CP, JE	JP: CA, Co-CA, PC, Local PC TL: MAF CP (NDF & District)	JP: Vehicles, Powerpoint TL: Transportation means	JP: Operational cost TL: Operational cost			
2-3-3 Integrate the work plans into annual plans of district directorates of MAF.	Annual work plans (ditto)																		NDF CP, DD CP, JE	JP: CA, Co-CA, PC, Local PC TL: MAF CP (NDF & District)	JP: Vehicles TL: Transportation means	JP: Operational cost TL: Operational cost			

Activities	Expected Outputs (Milestones)	TFY2011			TFY2012				TFY2013				TFY2014				TFY2015			Responsibility	Input			Remarks
		JFY2011			JFY2012				JFY2013				JFY2014				JFY2015				Human resources	Equipment	Budget	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2					
2-4 Organize planning seminars on CB-NRM.																				NDF CP, DD CP, JE				
2-4-1 Arrange planning seminars at NDF	Discussions in the seminars (Memos of seminars)																			JP: CA, Co-CA, PC, Local PC TL: MAF CP (NDF & District)	JP: Vehicles, Powerpoint TL: Transportation means	JP: Operational cost TL: Operational cost		
2-4-2 Facilitate the NDF Staff to formulate future plans to support CB-NRM with allocation of human and financial resources.	Work plans (ditto)																			JP: CA, Co-CA, PC, Local PC TL: MAF CP (NDF & District)	JP: Vehicles, Powerpoint TL: Transportation means	JP: Operational cost TL: Operational cost		
2-4-3 Integrate the plans to support CB-NRM into annual action plans of NDF	Annual action plans (ditto)																			JP: CA, Co-CA, PC, Local PC TL: MAF CP (NDF & District)	JP: Vehicles TL: Transportation means	JP: Operational cost TL: Operational cost		
2-5 Prepare technical manuals on CB-NRM.																								
2-5-1 Review the monitoring and progress reports on CB-NRM activities implemented in the Project sites.	Lessons learned (ditto)																			JP: CA, Co-CA, UFT/LD Ex, A/R Ex, PC, Local PC TL: MAF CP (NDF & District)	JP: - TL: -	JP: Operational cost TL: Operational cost		
2-5-2 Review the results of participatory evaluation of CB-NRM activities implemented in the Project sites.	Results of evaluation (Evaluation report)																			JP: CA, Co-CA, UFT/LD Ex, A/R Ex, PC, Local PC TL: MAF CP (NDF & District)	JP: - TL: -	JP: Operational cost TL: Operational cost		
2-5-3 Compile the technical manuals on CB-NRM with lessons learned from the Project activities.	Draft technical manuals (ditto)																			JP: CA, Co-CA, UFT/LD Ex, A/R Ex, PC, Local PC TL: MAF CP (NDF)	JP: - TL: -	JP: Operational cost TL: Operational cost		
2-5-4 Prepare the first draft of technical manuals	Draft technical manuals (ditto)																			JP: CA, Co-CA, UFT/LD Ex, A/R Ex, PC, Local PC TL: MAF CP (NDF)	JP: - TL: -	JP: Operational cost TL: Operational cost		
2-5-3 Finalized the technical manuals on CB-NRM in consultation with NDSDAC	Technical manuals (ditto)																			JP: Local PC TL: MAF CP (NDF)	JP: - TL: -	JP: Operational cost TL: Operational cost		
Output 3: Effective processes with roles of stakeholders to support CB-NRM are identified.																								
3-1 Prepare an operational manual on the processes to support CB-NRM with roles of stakeholders, reflecting the results of monitoring and evaluation of CB-NRM, including the micro programs implemented in the Project sites.																								
3-1-1 Prepare draft procedures for participatory land use planning and selection of micro programs.	Draft procedures for PLUP and selection of micro projects (ditto)																			JP: CA, Co-CA, Local PC TL: NDF Staff	JP: - TL: -	JP: Operational cost TL: -		
3-1-2 Put the draft procedures to trial in the target villages.	Village regulations and Memos of the monitoring meetings (ditto)																			JP: CA, Co-CA, Local PC TL: NDF Staff	JP: - TL: -	JP: Operational cost TL: -		
3-1-3 Prepare the first draft of an operational manual of CB-NRM reflecting the results of monitoring and evaluation of CB-NRM	1st Draft of Operation Manual (ditto)																			JP: CA, Co-CA, Local PC TL: NDF Staff	JP: - TL: -	JP: Operational cost TL: -		
3-1-4 Finalization of a draft operation manual of CB-NRM for the target area in consultation with the MAF District Offices concerned and NDSDAC	Draft Operation Manual																			JP: CA, Co-CA, Local PC TL: NDF Staff	JP: - TL: -	JP: Operational cost TL: -		
3-2 Develop draft policy recommendations																								
3-2-1 Assess the current situation of the forest sector and necessary measures for promotion of CB-NRM.	Annual report of the working team (2012/2013)																			JP: CA, Co-CA, Local PC TL: NDF Staff	JP: - TL: -	JP: Operational cost TL: -		
3-2-2 Review the results of monitoring and evaluation of CB-NRM in the Project sites	Annual report of the working team (2013/2014)																			JP: CA, Co-CA, Local PC TL: NDF Staff	JP: - TL: -	JP: Operational cost TL: -		
3-2-3 Draft policy recommendations to support promotion of CB-NRM in the target area based on the review of monitoring and evaluation of CB-NRM in the Project sites in consultation with relevant organizations	Draft policy recommendations																			JP: CA, Co-CA, Local PC TL: NDF Staff	JP: - TL: -	JP: Operational cost TL: -		
3-2-4 Submit the draft policy recommendations to NDF for endorsement	Draft policy recommendations (ditto)																			JP: CA, Co-CA, Local PC TL: NDF Staff	JP: - TL: -	JP: Operational cost TL: -		

Activities	Expected Outputs (Milestones)	TFY2011			TFY2012				TFY2013				TFY2014				TFY2015			Responsibility	Input			Remarks	
		I0	JFY2011			JFY2012				JFY2013				JFY2014				JFY2015			Human resources	Equipment	Budget		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2						Q3
3-3 Organize a workshop to present the recommendations to relevant institutions and stakeholders.																									
3-3-1 Make a presentation of the achievement of the Project and the draft policy recommendations to the national directorates of MAF, donors, NGOs and other relevant stakeholders.	Minutes of the meeting (ditto)																				MAF CP, JE	JP: CA, Co-CA, Local PC TL: NDF Staff	JP: - TL: -	JP: Operational cost TL: -	
3-3-2 Revise the draft policy recommendations with feedback and comments obtained from the workshop.	Revised draft policy recommendations (ditto)																					JP: CA, Co-CA, Local PC TL: NDF Staff	JP: Powerpoint TL: -	JP: Operational cost TL: -	
3-4-3 Submit the draft policy recommendations to MAF for endorsement for further approval of Secretary of State for Forest and Nature Conservation	Endorsed draft policy recommendations (ditto)																					JP: CA, Co-CA, Local PC TL: NDF Staff	JP: Powerpoint TL: -	JP: Operational cost TL: -	

MAF: Ministry of Agriculture and Fisheries

District: MAF District Office

JE: Japanese Expert(s)

CA: Chief Advisor, Co-CA: Co-Chief Advisor, UFT/LD Ex: Upland Farming Technologies/Livelihood Development Expert, A/R Ex: Afforestation/Reforestation Expert, PC: Project Coordinator, Local PC: Local Project Coordinator

NDF: National Directorate for Forestry

CP: Counterpart personnel

FA: Facilitating Agencies

Other ND: Other Relevant National Directorates of MAF

Table 3 Work Plan and Accomplishments made by the Project Team

Project Title: Project for Community-Based Sustainable Natural Resource Management
 Overall Goal: Community-based sustainable natural resource management (CB-NRM) is practiced in the target area.
 Project Purpose: An operational mechanism of CB-NRM at *suco* level is developed.
 Project Period: Five (5) years from the date of the first dispatch of expert(s)

Activities		TFY2011				TFY2012				TFY2013				TFY2014				TFY2015			Responsibility
		JFY2011				JFY2012				JFY2013				JFY2014				JFY2015			
		10	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Preparatory Activities																					
0-1 Conduct kick off meeting / introductory seminar on the Project.	Planned																				JE
	Actual																				
0-2 Review and revision of the draft PDM and PO	Planned																				MAF CP, JE
	Actual																				
0-3 Identify the roles of the facilitating agencies.	Planned																				MAF CP, JE
	Actual																				
0-4 Select the facilitating agencies to assist field activities in the Project sites.	Planned																				MAF CP, JE
	Actual																				
0-5 Prepare the terms of references of the facilitating agencies.	Planned																				MAF CP, JE, FA
	Actual																				
0-6 Select the Project sites	Planned																				MAF CP, JE
	Actual																				
Output 1: Land use plans are agreed upon and implemented by local residents in accordance with relevant <i>suco</i> regulations.																					
1-1 Organize initial consultative meetings in the Project sites.																					
1-1-1 Arrange <i>suco</i> meeting/workshop in each Project site.	Planned																				MAF CP, FA, JE
	Actual																				
1-1-2 Explain general purpose and planned activities of the Project	Planned																				MAF CP, FA, JE
	Actual																				
1-1-3 Confirm the willingness of the <i>suco</i> leaders as well as other community members to participate in the project	Planned																				MAF CP, FA, JE
	Actual																				
1-2 Conduct participatory village profiling in the Project sites.																					
1-2-1 Arrange <i>suco</i> workshop in each Project site.	Planned																				MAF CP, FA, JE
	Actual																				
1-2-2 Facilitate the workshop to grasp the current conditions of natural resources and land use.	Planned																				MAF CP, FA, JE
	Actual																				
1-2-3 Identify problems and possible measures to be taken by the local residents.	Planned																				MAF CP, FA, JE
	Actual																				
1-2-4 Assist the <i>suco</i> leaders to build consensus among the <i>suco</i> residents on development of the land use plans and relevant <i>suco</i> regulations.	Planned																				MAF CP, FA, JE
	Actual																				
1-3 Conduct participatory land use planning with formulation of relevant <i>suco</i> regulations.																					
1-3-1 Assist the <i>suco</i> leaders to prepare the land use plans and to draft the <i>suco</i> regulations with due deliberation.	Planned																				MAF CP, FA, JE
	Actual																				
1-3-2 Facilitate the <i>suco</i> leaders to obtain endorsement on the draft land use plans and <i>suco</i> regulations by <i>suco</i> councils, traditional leaders, other local communities and local government	Planned																				MAF CP, FA, JE
	Actual																				
1-3-3 Organize <i>Tara Bandu</i> ceremonies in the Project sites.	Planned																				MAF CP, FA, JE
	Actual																				
1-3-4 Distribute materials and signboards on the land use plans and <i>suco</i> regulations in and around the Project sites.	Planned																				MAF CP, FA, JE
	Actual																				
1-3-5 Assist the <i>suco</i> leaders in implementing the <i>suco</i> regulations and solving issues using the regulations.	Planned																				MAF CP, FA, JE
	Actual																				

Activities		TFY2011				TFY2012				TFY2013				TFY2014				TFY2015			Responsibility	
		10	JFY2011			JFY2012				JFY2013				JFY2014				JFY2015				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
1-4 Facilitate local residents in the Project sites to implement the micro programs prioritized																						
1-4-1 Organize <i>suco</i> workshops to identify and prioritize the micro programs.	Planned																				MAF CP, FA, JE	
	Actual																					
1-4-2 Organize interest groups for implementation of the micro programs.	Planned																					
	Actual																					
1-4-3 Develop work plans of the micro programs in a participatory manner.	Planned																					
	Actual																					
1-4-4 Conduct training for the group members on topics relevant to the respective <u>micro programs</u> .	Planned																					
	Actual																					
1-5 Monitor and evaluate CB-NRM in the Project sites.																						
1-5-1 Conduct regular visits to monitor the progress of the micro programs.	Planned																					
	Actual																					
1-5-2 Monitor the progress in CB-NRM.	Planned																					
	Actual																					
1-5-3 Conduct participatory evaluation on each micro program among the group members.	Planned																					
	Actual																					
1-5-4 Facilitate technical staff of district directorates of MAF to prepare plans to support the CB-NRM and micro programs with proper estimation of budget and human resource requirements.	Planned																					
	Actual																					
1-6 Organize project information sharing seminars and/or workshops for information sharing																						
1-6-1 Discuss and formulate a plan of the field project information sharing seminars.	Planned																					
	Actual																					
1-6-2 Assist the <i>suco</i> leaders and group leaders to prepare the presentation.	Planned																					
	Actual																					
1-6-3 Organize project information sharing seminars among the target <i>sucos</i>	Planned																					
	Actual																					
1-6-4 Conduct field seminars in the Project sites by inviting local residents of the neighboring <i>sucos</i> .	Planned																					
	Actual																					

Activities		TFY2011				TFY2012				TFY2013				TFY2014				TFY2015			Responsibility	
		10	JFY2011			JFY2012			JFY2013			JFY2014			JFY2015							
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
1-7 Establish the watershed management council of the Noru watershed as a platform where																						
1-7-1 Consultation with the relevant stakeholders	Planned																				MAF CP, FA, JE	
	Actual																					
1-7-2 Finalize the membership and by-laws of the watershed management council in consultation with the leaders of sucos concerned with the Noru watershed.	Planned																					
	Actual																					
1-7-3 Hold a regular meeting of the watershed management council and discuss issues on natural resource management in the watershed periodically.	Planned																					
	Actual																					
1-7-4 Assist the watershed management council in the preparation of the watershed management plan of the Noru watershed.	Planned																					
	Actual																					
Output 2: The staff of the Implementing agency and relevant stakeholders are enhanced to support CB-NRM.																						
2-1 Gather and compile useful CB-NRM practices and technologies applicable to the situation of the target area.																						
2-1-1 Collect and review the information on successful practices and technologies on CB-NRM.	Planned																				MAF CP, JE	
	Actual																					
2-1-2 Select the technologies and practices applicable to the Project sites.	Planned																					
	Actual																					
2-1-3 Compile the resource materials.	Planned																					
	Actual																					
2-1-4 Translate the resource materials into Tetun language.	Planned																					
	Actual																					
2-2 Plan and conduct the training on CB-NRM for the technical staff of the Implementing																						
2-2-1 Identify the target personnel of the capacity development and training.	Planned																				MAF CP, FA, JE	
	Actual																					
2-2-2 Halao assementu treinamentu (TNA).	Planned																					
	Actual																					
2-2-3 Formulate training programs for technical staff of NDF and relevant stakeholders.	Planned																					
	Actual																					
2-2-4 Conduct in-house training courses on selected practices and technologies on CB-NRM using the resource materials developed through activity 2-1.	Planned																					
	Actual																					
2-2-5 Conduct the on-the-job training (OJT) in line with the CB-NRM activities in the Project sites.	Planned																					
	Actual																					
2-3 Organize feedback seminars on CB-NRM.																						
2-3-1 Organize feedback seminars at district directorates of MAF to review the experiences in the Project activities.	Planned																				NDF CP, DD CP, JE	
	Actual																					
2-3-2 Facilitate the technical staff to formulate work plans to support CB-NRM in their areas of jurisdiction.	Planned																					
	Actual																					
2-3-3 Integrate the work plans into annual plans of district directorates of MAF.	Planned																					
	Actual																					

Activities		TFY2011				TFY2012				TFY2013				TFY2014				TFY2015			Responsibility
		10	JFY2011			JFY2012			JFY2013			JFY2014			JFY2015						
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
2-4 Organize planning seminars on CB-NRM.																					
2-4-1 Arrange planning seminars at NDF	Planned																			NDF CP, DD CP, JE	
	Actual																				
2-4-2 Facilitate the NDF Staff to formulate future plans to support CB-NRM with allocation of human and financial resources	Planned																				
	Actual																				
2-4-3 Integrate the plans to support CB-NRM into annual action plans of NDF	Planned																				
	Actual																				
2-5 Prepare technical manuals on CB-NRM.																					
2-5-1 Review the monitoring and progress reports on CB-NRM activities implemented in the Project sites	Planned																			MAF CP, JE	
	Actual																				
2-5-2 Review the results of participatory evaluation of CB-NRM activities implemented in the Project sites.	Planned																				
	Actual																				
2-5-3 Compile the technical manuals on CB-NRM with lessons learned from the Project activities.	Planned																				
	Actual																				
2-5-4 Prepare the first draft of technical manuals	Planned																				
	Actual																				
2-5-5 Finalized the technical manuals on CB-NRM in consultation with NDSDAC	Planned																				
	Actual																				
Output 3: Effective processes with roles of stakeholders to support CB-NRM are identified.																					
3-1 Prepare an operational manual on the processes to support CB-NRM with roles of																					
3-1-1 Prepare draft procedures for participatory land use planning and selection of micro programs	Planned																			MAF CP, JE	
	Actual																				
3-1-2 Put the draft procedures to trial in the target villages.	Planned																				
	Actual																				
3-1-3 Prepare the first draft of an operational manual of CB-NRM reflecting the results of monitoring and evaluation of CB-NRM	Planned																				
	Actual																				
3-1-4 Finalization of a draft operation manual of CB-NRM for the target area in consultation with the MAF District Offices concerned and NDSDAC	Planned																				
	Actual																				
3-2 Develop draft policy recommendations																					
3-2-1 Assess the current situation of the forest sector and necessary measures for promotion of CB-NRM	Planned																			MAF CP, JE	
	Actual																				
3-2-2 Review the results of monitoring and evaluation of CB-NRM in the Project sites	Planned																				
	Actual																				
3-2-3 Draft policy recommendations to support promotion of CB-NRM in the target area based on the review of monitoring and evaluation of CB-NRM in the Project sites in consultation with relevant organizations	Planned																				
	Actual																				
3-2-4 Submit the draft policy recommendations to NDF for endorsement	Planned																				
	Actual																				
3-3 Organize a workshop to present the recommendations to relevant institutions and																					
3-3-1 Make a presentation of the achievement of the Project and the draft policy recommendations to the national directorates of MAF, donors, NGOs and other relevant stakeholders.	Planned																			MAF CP, JE	
	Actual																				
3-3-2 Revise the draft policy recommendations with feedback and comments obtained from the workshop.	Planned																				
	Actual																				
3-3-3 Submit the draft policy recommendations to MAF for endorsement for further approval of Secretary of State for Forest and Nature Conservation	Planned																				
	Actual																				

MAF: Ministry of Agriculture and Fisheries NDF: National Directorate for Forestry Other ND: Other Relevant National Directorates of MAF
District: MAF District Office CP: Counterpart personnel
JE: Japanese Expert(s) FA: Facilitating Agencies
CA: Chief Advisor, Co-CA: Co-Chief Advisor, UFT/LD Ex: Upland Farming Technologies/Livelihood Development Expert, A/R Ex: Afforestation/Reforestation Expert,
PC: Project Coordinator, Local PC: Local Project Coordinator

Figure 1 Location Map of the Project Target Areas

