

**Ministry of Agriculture and Fisheries
The Democratic Republic of Timor-Leste**

**The Project for
Community-Based Sustainable Natural
Resource Management Phase II**

Project Completion Report

February 2022

**Japan International Cooperation Agency
(JICA)**

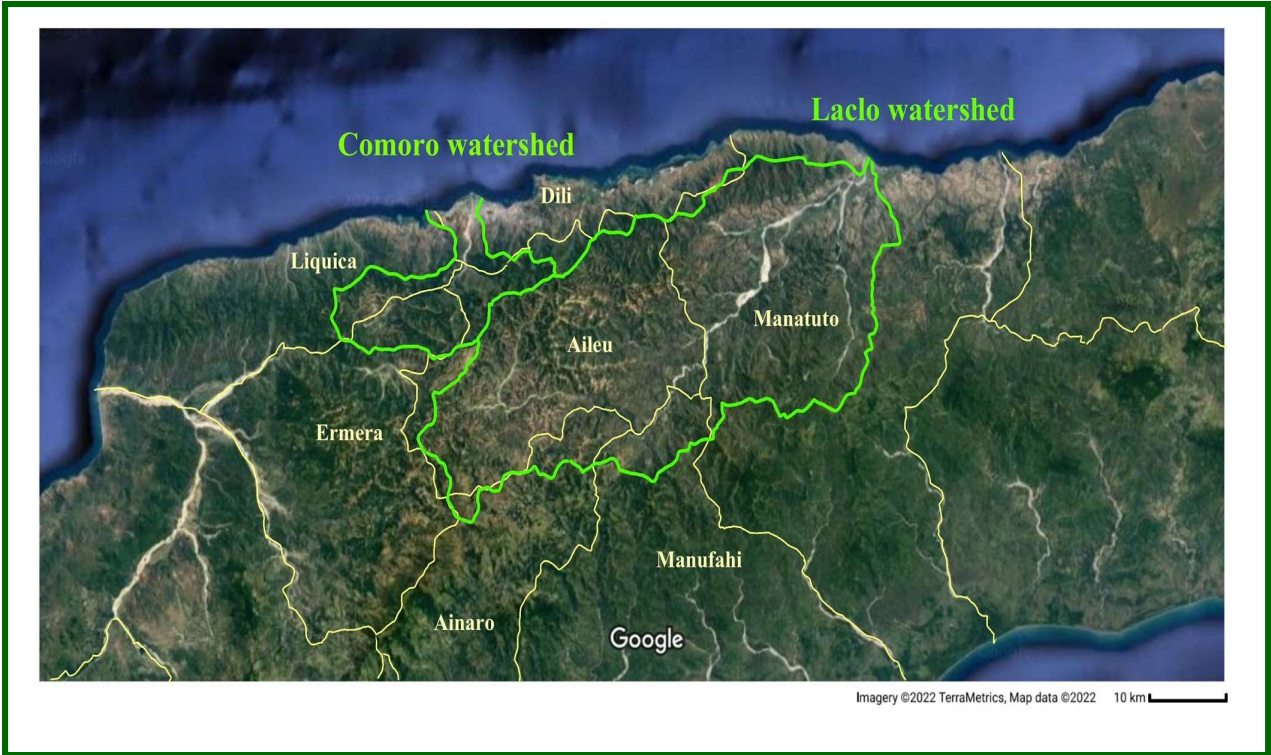
**International Development Center of Japan Inc.
Nippon Koei Co., Ltd.**

GE
JR
22-027

Project Target Area



Target Watershed Area (Comoro Watershed and Lacro Watershed)



Source: Developed by the Project based on Google Maps

Exchange Rate
February 2022

US\$ 1 = ¥ 115.262

(JICA Rate)

Project Completion Report

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Abbreviations and Acronyms

AE	Accredited Entity
AFoCO	Asian Forest Cooperation Organization
AI	Artificial Intelligence
AP	Action Plan
CAP	Conservation Agricultural Project
CBAP	Community-based Adaptation Plan
CB-NRM	Community-based Sustainable Natural Resource Management
CCVA	Climate Change Vulnerability Assessment
CD	Capacity Development
CF	Community Forestry
CFMA	Community Forest Management Agreement
CI	Conservation International
CIC	Climate Investment Committee
C/N	Concept Note
COVID-19	Coronavirus Disease 2019
CP	Counterpart
CPMT	Central Project Monitoring Team
DAC	Development Assistance Committee
DARDC	Dili-Ainaro Road Development Corridor
DG	Director General
DGFCIP	Director/Directorate General of Forestry, Coffee and Industrial Plants
DP	Development Partner(s)
EE	Executing Entity
EIB	European Investment Bank
EIRR	Economic Internal Rate of Return
ETA	Escola Técnico Agrícola (Agricultural Technical School)
EU	European Union
FAA	Funded Activity Agreement
FAO	Food and Agriculture Organization
FAT	Field Assisting Team
F-COTI	Fundação Carbon Offset Timor
FP	Funding Proposal
FPIC	Free, Prior and Informed Consent
GCCA	Global Climate Change Alliance Program
GCF	Green Climate Fund
GEF	Global Environment Facility
GHG	Greenhouse gas
GIS	Geographic Information System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GoJ	The Government of Japan
GoTL	The Government of Timor-Leste
HASATIL	Hametin Agrikultura Sustentavel Timor Lorosae (network for national NGOs)
HH	Household
iTAP	The independent Technical Advisory Panel
JCC	Joint Coordination Committee
JICA	Japan International Cooperation Agency

LDN	Land Degradation Neutrality
MAF	Ministry of Agriculture and Fisheries
MAF-DPM	MAF-Development Partners' meeting
MAO	Municipal Administration/ Authority Office
MP	Micro Program
MPMT	Municipality Project Monitoring Team
MS	Monitoring Sheet
ND	National Director
NDA	National Designated Agency
NDCC	National Directorate of Climate Change
NDCF	National Directorate of Community Forestry Development
NDCIP	National Directorate of Coffee and Industrial Plants
NDFAT	National Directorate of Formation and Agricultural Training
NDFWM	National Director/Directorate for Forestry, and Watershed Management
NDFWMAM	National Director/Directorate for Forestry, Watershed, and Mangrove Area Management
NDNC	National Directorate of Nature Conservation
NDSRGI	National Directorate of Statistical Research and Geographical Information
NGO	Non-governmental Organizations
NRM	Natural Resource Management
OHM	Organisasaun Haburas Moris
OJT	On-the-Job Training
PA	Post-administrative
PDM	Project Design Matrix
PLUP	Participatory Land Use Planning
PNDS	Plan National Development Suco
PO	Plan of Operation
PSAF	Partnership for Sustainable Agroforestry
RCM	Recommendation (used only in the table)
R/D	Record of Discussion
RECOFTC	Regional Community Forestry Training Center for Asia and the Pacific
SAP	Simplified Approval Process
SAPIP	Sustainable Agriculture Productivity Improvement Project
TET	Technical Expert Team
TOMAK	To'os ba Moris Di'ak
TOR	Terms of Reference
TOT	Training of Trainers
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
WB	World Bank
WMC	Watershed Management Council

1. Background and Purpose of the Project

1.1. Country

The Democratic Republic of Timor-Leste

1.2. Title of the Project

The Project for Community-Based Sustainable Natural Resource Management Phase II

1.3. Duration of the Project

August 2016 – February 2022

1.4. Background

The latest assessment revealed that approximately 183,900 ha of forests had disappeared between 2003 and 2012 in the Democratic Republic of Timor-Leste (Timor-Leste) and 171,000 ha of dense forests had been degraded to sparse forests during the same period. It also indicated that the total forest coverage had declined to about 59% of the whole country (about 869,000 ha) in 2012.

The deforestation and forest degradation are, at least partially, due to the economic activities of poor farmers in the uplands, and their major causes are 1) slash-and-burn agricultural practice, 2) excessive firewood collection, 3) forest fires and 4) uncontrolled land use. Subsequently, deforestation and forest degradation cause soil erosion, land slide and flash flood, affecting the livelihood of the communities in the watersheds. Under such circumstances, the Government of Timor-Leste agreed with Japan International Cooperation Agency (JICA) on the implementation of a development study named “The Study on Community-Based Integrated Watershed Management in Laclo and Comoro River Basins” (2005-2010) and subsequent technical cooperation of “Project for Community-based Sustainable Natural Resource Management (2010-2015)” (hereinafter “Phase I”). The study and Phase I supported the development of the Community-based Sustainable Natural Resource Management (CB-NRM) mechanism, which includes Participatory Land Use Planning (PLUP) with formulation and implementation of village/suco¹ regulations, capacity development of relevant actors, and improvement of community livelihoods with Micro Programs (MPs) in 6 target villages in Laclo and Comoro watersheds (See Box below for the outline of CB-NRM mechanism.) Phase I also formulated operation manuals, technical manuals and policy recommendations for the CB-NRM mechanism implementation based on the project outputs.

The CB-NRM has been applied in rural development cooperation projects of various Development Partners (DPs) including FAO², USAID³, GIZ⁴ and the World Bank. PLUP, in particular, is highly valued as an effective measure of introducing rural development programs to the community. The challenges ahead are the capacity development of key operational actors at National Directorate of Forestry, Watershed and

¹ In Timor-Leste, a village is called *suco*, and the words *suco* and *village* are interchangeably used in this report.

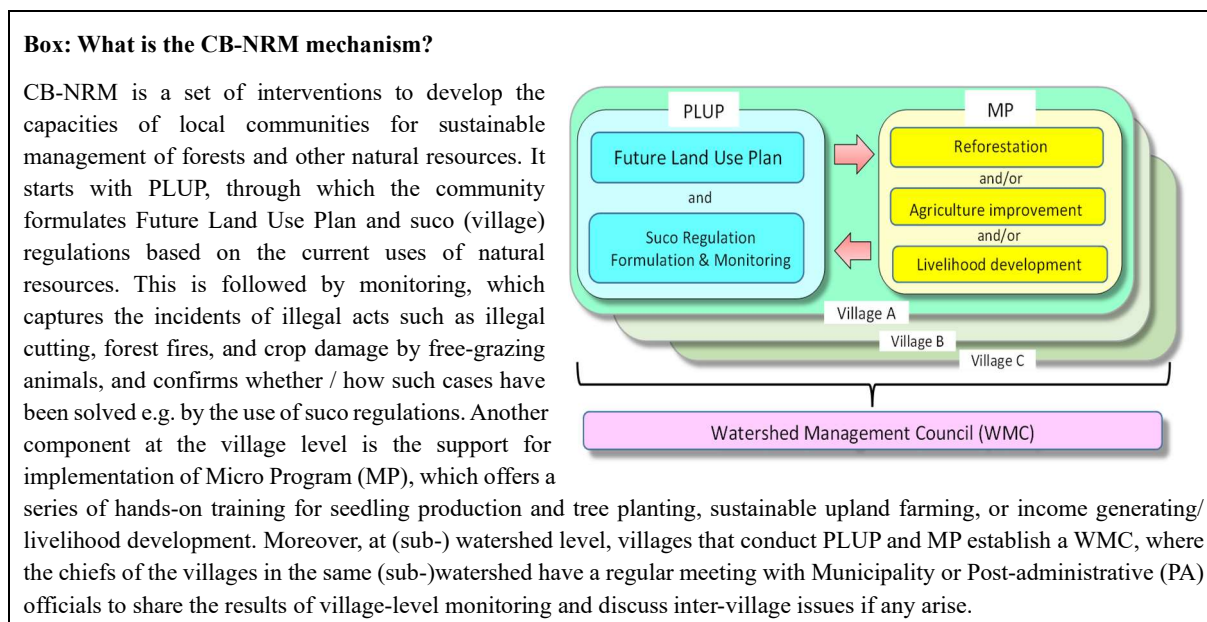
² Food and Agriculture Organization

³ United States Agency for International Development

⁴ Deutsche Gesellschaft für Internationale Zusammenarbeit (German Corporation for International Cooperation)

Mangrove Area Management (NDFWMAM)⁵ of Ministry of Agriculture and Fisheries (MAF) as well as those of local NGOs for expanding the CB-NRM mechanism and the materialization of the expansion, which includes the formation of the watershed management council (WMC) in other areas of watersheds in the country.

With these needs in mind, the government of Timor-Leste requested to the government of Japan the implementation of “The Project for Community-Based Sustainable Natural Resource Management Phase II” (hereinafter “the Project”). The Project was officially approved in 2015 and implemented from August 2016 to February 2022.



1.5. Overall Goal and Project Purpose

Overall goal: CB-NRM mechanism is expanded to some of the major watersheds in accordance with the roadmap.

Project purpose: Capacities of key operational actors including NDFWM, NGOs and other stakeholders to expand the CB-NRM mechanism are enhanced.

1.6. Implementing Arrangement

The implementation arrangement and beneficiaries are shown in the table below.

Table 1-6-1: Implementation arrangement and beneficiaries

Implementation arrangement	Project Director	Director General of Directorate General of Forestry, Coffee and Industrial Plants (DGFCIP)
	Project Manager	National Director of NDFWMAM
	Implementation Agency	NDFWMAM
Beneficiaries	NDFWMAM officials, MAF Aileu/Dili Municipality officials, DPs/NGOs, Noru and Bemós WMC, and communities in Laçlo and Comoro watersheds	

⁵ Ministerial reorganization was undertaken in 2021, and the implementation agency of the Project, NDFWM (National Directorate for Forestry and Watershed Management) became NDFWMAM. Thus, the current name of NDFWMAM is primarily used in this report.

2. Results of the Project

2.1. Results of the Project

2.1.1. Input by the Japanese side

(1) Experts

The assignments of JICA experts are summarized below.

Table 2-1-1: Expert assignment

Position	Actual (Person Month)		
	Timor-Leste	Place of residence	Total
Chief Advisor/ CB-NRM mechanism (1)/ CB-NRM Policy	27.40	8.60	36.00
Deputy Chief Advisor/ CB-NRM mechanism (1)/ CB-NRM Policy	17.46	9.22	26.68
Institutional Linkage and Coordination (1)	8.53	1.75	10.28
Institutional Linkage and Coordination (2)	16.83	5.23	22.06
Sustainable Upland Agriculture (1) /Livelihood Development	7.77	2.57	10.34
CB-NRM Mechanism (2)/ Forest Management	8.76	4.76	13.52
GIS	3.36	0.40	3.76
Sustainable Upland Agriculture (2)/ Coordinator	8.73	0.90	9.63
Watershed Management/ CB-NRM Planning/ Impact Assessment	0.47	1.40	1.87
Forest Biomass Assessment/ Cost Estimation/ Economic Analysis	1.90	0.10	2.00
Satellite Image Analysis/ GIS		1.60	1.60
Satellite Image Analysis/ GIS 1	0.50	3.45	3.95
Satellite Image Analysis/ GIS 2	0.50	1.77	2.27
Gender Analysis/ Climate Vulnerability Assessment	0.90	0.60	1.50
Environmental and Social Consideration	-	1.00	1.00
CB-NRM Expansion	2.03	1.77	3.80
Total	105.14	45.12	150.26

(2) Procurement of equipment

The equipment has been procured for project operation as shown below.

Table 2-1-2: Procurement of equipment

Equipment	Model	Quantity	Status
Motorcycle	Honda Verza	4	Handed over to MAF
Drone	DJI Mavic 2 Pro	2	Handed over to MAF
Tablet	iPad mini Wi-Fi	2	Handed over to MAF
GPS	eTrex 32x	4	Handed over to MAF
Multifunction Printer (Photocopier)	Docucenter iV C2263	1	Handed over to MAF
Laser Printer	HP Laserjet Pro M225dn	1	Handed over to MAF
Laptop Computer	Toshiba Satellite C-55T	3	Handed over to MAF
Laptop Computer	Toshiba C5-C5232X Core i5 Win	1	Handed over to MAF
Desktop Computer	HP Slimland 450-122d	1	Handed over to MAF

(3) Training and workshops

The Project organized training as shown in the table below. At field level, the Project introduced the CB-NRM mechanism (PLUP and MP) to 9 target villages in 3 batches. For the government officials and NGOs, who supported the introduction of CB-NRM mechanism, technical training was conducted on the techniques of facilitating and guiding field activities undertaken by communities.

Table 2-1-3: Implementation of training

No	Training	Target Village (Suco)/ Trainee	Implementation Period	Number of Trainees (Cumulative Total)			Remark
				Female	Male	Total	
01	PLUP	Fahisoi L	2016.11-2017.05	265	587	852	1 st batch sucos
02	PLUP	Fahisoi R	2016.11-2017.05	294	525	819	1 st batch sucos
03	PLUP	Manucasa	2017.06-2018.01	163	485	648	2 nd batch sucos
04	PLUP	Maumeta	2017.06-2018.01	212	433	645	2 nd batch sucos
05	PLUP	Fatisi/Bocolelo *	2016.11-2017.07	195	558	753	1 st batch sucos
06	PLUP	Cotolau	2017.06-2018.01	156	375	531	2 nd batch sucos
07	PLUP	Fatrilau	2018.07-2018.11	41	200	241	3 rd batch sucos
08	PLUP	Dare	2018.06-2019.02	332	675	1,007	3 rd batch sucos
09	MP	Fahisoi L	2017.05-2019.06	2,327	3,936	6,263	1 st batch sucos
10	MP	Fahisoi R	2017.05-2019.06	1,251	4,663	5,914	1 st batch sucos
11	MP	Maumeta	2018.05-2020.08	1,218	3,261	4,479	2 nd batch sucos
12	MP	Manucasa	2018.05-2020.08	1,007	2,858	3,865	2 nd batch sucos
13	MP	Fatisi/Bocolelo *	2017.05-2020.12	2,011	4,118	6,129	1 st batch sucos
14	MP	Cotolau	2018.05-2020.11	1,650	4,269	5,919	2 nd batch sucos
15	Livelihood development MP (food processing, mushroom cultivation, etc.)	Fadabloc, Hautoho, FahisoiR, FahisoiL, Bocolelo, Cotolau	2016.10-2020.08	265	112	378	Target sucos of Phase I Project and this Phase II Project
16	Guidance for CB-NRM On-the-job training (OJT)	OJT trainees, NGO, CP	2016.11-2017.05	4	56	60	Part of Capacity Development (CD) for key operating actors
17	Baseline survey	CP	2017.06-2017.12	11	77	88	Part of CD of key operating actors
18	GIS	CP, NGO	2017.07	1	14	15	Part of CD of key operating actors
19	Field report preparation	CP	2017.07-2017.10	4	20	24	Part of CD of key operating actors
20	Soil pH measurement and method of adjusting soil acidity	CP, NGO	2018.02-2018.07	9	31	40	Part of CD of key operating actors
21	TOT for Community Forestry (CF)	CP, NGO	2018.06	2	12	14	Co-hosted with RECOFTC**
22	OJT on MP	MAF NDFAT and ETA***	2018.06-2019.12	0	47	47	Part of CD of key operating actors
23	Annual plan formulation and implementation	CP	2019.06-12	8	33	41	Part of CD of key operating actors
24	End-line survey	CP	2019.07-2019.10	1	10	11	Part of CD of key operating actors
25	Skill development for CB-NRM guidance	CP	2019.08	1	1	2	Part of CD of key operating actors
26	Training in Japan	CP	2017.04 2019.12	1	7	8	Conducted 2 times

Note: * Divided into 2 villages in April 2017. ** Regional Community Forestry Training Center for Asia and the Pacific *** National Directorate of Formation and Agricultural Training and Agricultural Technical School

The workshops, seminars and meetings conducted in the project period are summarized below. They are mainly composed of the taskforce meetings for the roadmap formulation for Output 1, DP/NGO coordination meetings for Output 2, and annual stakeholder workshops.

Table 2-1-4: Implementation of workshops, seminars and meetings

No	Workshop/meeting	Participants	Implementation Period	Number of Participants (Cumulative Total)			Remark
				Female	Male	Total	
01	CB-NRM Roadmap Taskforce Meeting	CP (Taskforce members)	2016.10-2021.08	21	143	164	16 meetings in total
02	Consultation meeting on the government documents for expansion of CB-NRM	Municipal offices, MAF, MAF, NGO	2019.10-2021.09	8	97	115	3 times at regional level and 1 time at the central level (4 in total)
03	DP coordination meeting	DP, NGO, MAF	2017.02-2019.09	18	134	152	8 meetings in total
04	NGO coordination meeting	NGO, MAF	2018.02-2019.04	3	39	42	2 meetings in total
05	CB-NRM stakeholder workshop	DP, NGO, MAF, WMC, Municipality	2017.05-2022.02	NA	NA	337	4 times in total

(4) Local cost borne by Japanese side

The local cost borne by Japanese side is shown below.

Table 2-1-5: Local cost borne by Japanese side

Item	Amount
Operational cost	72 million Japanese Yen
Equipment	3 million Japanese Yen

2.1.2. Input by the Timor-Leste side

(1) Assignment of counterpart (CP) officials

The assignment of CP officials is shown below. The CP team mainly consists of NDFWMAM officials and Aileu Municipality officers.

Table 2-1-6: Assignment of CP

Position/ Institution	Number	Engaged Period	Remark
Director General, DGFCIP, MAF	1	2016.08-2022.02	Personnel replacement made in 2019.
National Director, NDFWMAM, MAF	1	2016.08-2022.02	Name has changed from NDFWM since the reorganization of MAF in 2021. Personnel replacement made in 2017.
Chief of Dept., Dept. of Watershed Management, NDFWMAM, MAF	1	2016.08-2022.02	Name has changed from Dept. of Watershed Management and Coastal Area since the reorganization of MAF in 2021.
Chief of Dept., Dept. of Reforestation and Conservation of Soil and Water, NDFWMAM, MAF	1	2016.08-2022.02	Personnel replacement made in 2018.
Technical staff, Dept. of Watershed Management, NDFWMAM, MAF	1	2016.08-2022.02	Name has changed from Dept. of Watershed Management and Coastal Area since the reorganization of MAF in 2021.
Technical staff, Dept. of Coastal and Mangrove Area, NDFWMAM, MAF	1	2019.08-2020.01	Newly formed after the reorganization of MAF in 2021. Temporarily assigned for CB-NRM mechanism impact assessment.
Technical Staff, Dept. of Reforestation and Conservation of Soil and Water, NDFWMAM, MAF	2	2016.08-2022.02	One member replaced in 2018.
Dept. of Community Forestry, NDCFD, MAF	1	2016.08-2022.02	-
Director, MAF Aileu Office	1	2016.09-2022.02	Personnel replacement made in 2021.
Officer in Coffee, Industrial Plant and Agribusiness, MAF Aileu Office	1	2016.09-2022.02	-
Officer in Agriculture and Horticulture, MAF Aileu Office	1	2016.09-2022.02	-
Officer in Livestock, MAF Aileu Office	1	2016.09-2022.02	-
Chief of Dept. of Forestry, Aileu Municipality	1	2016.09-2021.10	Transferred in 2021.
Officer, Dept. of Forestry, Aileu Municipality	1	2016.09-2017.03	Transferred in 2017
Forest Guard, Aileu Municipality	3	2016.09-2022.02	-
Extension Coordinator, Aileu Municipality	2	2016.09-2022.02	-
Extensionist, Aileu Municipality	3	2016.09-2022.02	-
Extensionist (in charge of Suco Dare, Dili Municipality)	1	2019.06-2022.02	-

(2) CP budget for the Project

The following table shows the disbursement of CP budget for the Project. The seedling distributions for the WMCs supported by the Project have been undertaken every year except for 2021. These in-kind contributions are converted into monetary terms in the table below.

Table 2-1-7: Disbursement of CP budget for the Project

Item	Amount
Year 2016*	
Follow-up activities for the target villages of Phase I	10,000 USD
Monitoring of project activities by CP	920 USD
Year 2017	
Monitoring of project activities by CP	1,920 USD
Year 2018	
Seedlings distribution for Noru WMC (9,000 seedlings)	9,000 USD
Year 2019	
Seedlings distribution for Noru WMC (6,000 seedlings)	6,000 USD
Seedlings distribution for Bemos WMC (6,000 seedlings)	6,000 USD
Follow-up activities for the target villages of Phase I	10,000 USD
Year 2020	
Seedlings distribution for Noru WMC (15,014 seedlings)	15,014 USD
Seedlings distribution for Bemos WMC (14,464 seedlings)	14,464 USD
Year 2021	
Follow-up activities for the sucos where CB-NRM mechanism has been introduced	35,000 USD
Year 2022	
Seedlings distribution for Noru WMC (10,000 seedlings)	10,000 USD
Seedlings distribution for Bemos WMC (12,000 seedlings)	12,000 USD

Note: * Fiscal year of Timor-Leste is from January to December.

(3) Others

DGFCIP provided an office space for the Project.

2.1.3. Activities (planned and actual)

The following table summarizes the achievements against the plan in Project Design Matrix (PDM) and Plan of Operation (PO) of the Project. (See Attachment 1 for PDM and Attachment 2 for PO.)

Table 2-1-8: Plan and achievements

PDM/PO Activity	Achievement
Output 1: The roadmap for future expansion of the CB-NRM mechanism is formulated.	
[1-1] Identify issues to be addressed and measures to be taken for further expansion of the CB-NRM mechanism in major watershed in Timor-Leste [1-1-1] Information collection from stakeholders	The Project has conducted discussions and shared information with relevant stakeholders since Aug. 2016 and prepared a paper on stakeholder analysis in Oct. 2016. The paper was used as a basis for the formulation of the roadmap and collaboration with them.

PDM/PO Activity	Achievement
[1-1-2] Analysis on collected information	
<p>[1-2] Develop a skeleton framework of the roadmap.</p> <p>[1-2-1] Consultation with stakeholders for the revision of Forestry Sector Policy</p> <p>[1-2-2] Determination of timeframe</p> <p>[1-2-3] Drafting of the skeleton framework</p>	<p>The Project participated in discussions on the revision of Forest Sector Policy and then set 2030 as the target year of the roadmap in accordance with the policy.</p> <p>The Project agreed with DGFCIP to set the roadmap as a means of sector policy implementation.</p> <p>The skeleton framework of the roadmap was prepared in May 2017.</p>
<p>[1-3] Draft the roadmap to expand the CB-NRM mechanism.</p> <p>[1-3-1] Formation of a taskforce</p> <p>[1-3-2] Taskforce meetings</p> <p>[1-3-3] Formulation of the roadmap in consultation with NDFWMAM</p> <p>[1-3-4] Finalization of the roadmap</p>	<p>The roadmap taskforce was formed in Apr. 2017 with the members of National Directors and Chiefs of departments of NDFWMAM and other related National Directorates under DGFCIP.</p> <p>The roadmap meetings were held from May 2017 (12 times).</p> <p>The taskforce prepared the 1st draft of the roadmap (interim version) in Jun. 2018 and shared it in the 3rd CB-NRM stakeholder workshop. After refinement of the draft, the 2nd draft of the roadmap was prepared in Sep. 2019.</p>
<p>[1-4] Analyze detailed information on high priority watersheds in order to assist MAF in formulating the implementation plan of the CB-NRM roadmap, using external funds</p> <p>[1-4-1] Assessment on the effectiveness of the CB-NRM mechanism on climate change</p> <p>[1-4-2] Analysis on the impact of CB-NRM mechanism for forest conservation</p> <p>[1-4-3] Basic data of forest biomass in target watersheds</p> <p>[1-4-4] Provision of a future scenario on NRM by communities in target watersheds</p> <p>[1-4-5] Formulation of action plan based on gender analysis</p> <p>[1-4-6] Formulation of environmental and social action plan or framework</p> <p>[1-4-7] Economic analysis</p> <p>[1-4-8] Stakeholder analysis</p> <p>[1-4-9] Implementation arrangement</p> <p>[1-4-10] Consensus building among stakeholders on the draft implementation plan</p>	<p>[1-4-1] the Project confirmed the effectiveness of the CB-NRM mechanism for both mitigation and adaptation to climate change. It also proposed the application of PLUP/CCVA (developed in cooperation with GIZ) for the formulation of CBAP (Community-based Adaptation Plan).</p> <p>[1-4-2] and [1-4-3] The Project conducted a satellite image analysis on the degradation rate of dense forests, comparing the target areas of Phase I (with the introduction of CB-NRM mechanism) and non-target areas. It also collected basic data of forest biomass through forest inventory survey.</p> <p>[1-4-4] the Project collected the data on current status of agriculture and natural resource use in target communities and made projections on climate change based on existing data as well as impact on agriculture and other economic activities.</p> <p>[1-4-5] The Project proposed the gender action plan after conducting a gender analysis in sample villages which confirmed the different perceptions by gender on the impact of climate change at community level.</p> <p>[1-4-6] The Project identified potential risks in the activities under the JICA GCF project, conducted screening, and presented mitigation measures for different risks.</p> <p>[1-4-7] The Project, based on the calculation of project costs, proposed a co-financing arrangement among stakeholders. Cost benefit analysis and economic analysis were also undertaken.</p> <p>[1-4-8], the Project, through the stakeholder analysis, identified target watersheds, where DPs can collaborate without duplications of interventions. Roles of government agencies in GCF project were clarified.</p> <p>[1-4-9] JICA and the Project discussed with DGFCIP and National Designated Authority (NDA) and agreed on the structure and function of Central Steering Committee. Implementation and monitoring system at central, municipal and field levels were also proposed.</p> <p>[1-4-10] JICA and the Project regularly communicated with DGFCIP and NDA to update the progress of GCF application and discuss the responses to comments given by GCF, implementation arrangements, allocation of government budget, etc. Discussions were also made with DPs and NGOs over future cooperation on CF and carbon offset projects.</p>

PDM/PO Activity	Achievement
<p>[1-5] Obtain agreement and official endorsement by MAF on the roadmap.</p> <p>[1-5-1] Explanation of initial draft of roadmap to the relevant authorities and stakeholders in MAF</p> <p>[1-5-2] Taskforce meetings for refinement of the draft roadmap</p> <p>[1-5-3] Submission of the final draft to respective authorities in MAF for approval and endorsement</p>	<p>[1-5-1] Consultation meetings were held for the draft roadmap in 3 regional centers (Oct.-Nov. 2019).</p> <p>[1-5-2] During the periods of state of emergency under the COVID-19 pandemic, the Project focused on refining the roadmap with the inputs of stakeholders' comments, MAF Strategic Plan (2021-2025) and the reorganized structure of MAF. The roadmap taskforce was restarted from May 2021 (13th to 16th meetings) and conducted a consultation meeting with the high officials of MAF and another with DPs and NGOs in Dec. 2021.</p> <p>[1-5-3] The Project submitted the final drafts of the roadmap and the ministerial order for roadmap implementation to DGFCIP and obtained his approval for the roadmap. The DG will explain them to H.E Minister of MAF for the finalization and approval of the ministerial order.</p>
<p>[1-6] Assist MAF in preparing for the implementation of the CBNRM roadmap</p> <p>[1-6-1] Technical inputs to the funding proposal for GCF and the discussion with GCF</p> <p>[1-6-2] Support for contracting process with GCF</p> <p>[1-6-3] Selection of target villages</p> <p>[1-6-4] Grouping and prioritization of the target villages</p> <p>[1-6-5] Preparation of technical materials for implementation</p> <p>[1-6-6] Socialization of the target villages on CB-NRM and GCF project</p> <p>[1-6-7] Identification of baseline data for M&E of GCF project</p> <p>[1-6-8] Support MAF implementation arrangement</p> <p>[1-6-9] Support for preparation of inception report of GCF project</p>	<p>[1-6-1] The Project assisted the GCF application as well as revision of FP in the appraisal process.</p> <p>[1-6-2] After the approval of GCF project in Mar. 2021, the Project supported the clarification of the activities and budget arrangements on the part of MAF, such as preparation of financial schedule and formulation of activities under co-financing arrangements, for the conclusion of agreement between JICA and GCF.</p> <p>[1-6-3] and [1-6-4] The Project consulted with municipalities and MAF municipal offices in the target watersheds on the outlines of GCF project and selection process of target areas and requested for cooperation. The Project also undertook selection and grouping of target villages.</p> <p>[1-6-5] As preparatory work for the inception of GCF project, the Project prepared the revised versions of CB-NRM manuals and drafts of tender documents, procurement schedule, implementation and monitoring guidelines and grievance redress mechanism.</p> <p>[1-6-6] The Project held a stakeholder workshop mainly aimed at the guidance on GCF project in Feb. 2022.</p> <p>[1-6-7] Baseline survey on socio-economic status and forest resources was conducted with necessary equipment procured.</p> <p>[1-6-8] The Project developed an outline of monitoring structure (assignment of central and municipal monitoring teams) through the discussion with DGFCIP and Municipal Administrators.</p> <p>[1-6-9] The Project supported the preparation of the inception report for the JICA GCF Project. The draft was submitted to JICA.</p>
<p>Output 2: Enabling environment is developed to enhance relevant institutions for expansion of the CB-NRM mechanism.</p>	
<p>[2-1] Facilitate the set-up of a secretariat in MAF/NDFWM in coordination with existing networks and fora.</p> <p>[2-1-1] Assessment of existing networks</p> <p>[2-1-2] Establishment of a platform</p> <p>[2-1-3] Discussion on the concepts, objectives and functions of the platform</p> <p>[2-1-4] Finalization of the concepts, plans and membership</p>	<p>[2-1-1] and [2-1-2] The Project confirmed the effectiveness of exiting forum of DP coordination meeting led by DGFCIP as the main platform and supported its secretariat (the DGFCIP cabinet)</p> <p>In addition, the Project supported NDFWMAM to start NGO coordination meeting.</p> <p>[2-1-3] and [2-1-4] In the process of supporting coordination meetings, the Project prepared and finalized a concept paper on the objectives and implementation arrangements of DP and NGO coordination through the discussions with DGFCIP.</p>
<p>[2-2] Identify the stakeholders and key</p>	<p>As for the DP coordination meetings, DGFCIP coordinated the</p>

PDM/PO Activity	Achievement
<p>operational actors working in the fields relevant to the CB-NRM.</p> <p>[2-2-1] Information gathering on stakeholders</p> <p>[2-2-2] Sensitization of potential stakeholders on CB-NRM platform</p>	<p>participation of DPs in forest and watershed sector. The DG also organized NGO coordination meetings after obtaining the list of local NGOs in agriculture sector through an NGO forum.</p>
<p>[2-3] Assist the CB-NRM platform to sensitize the members of the platform on the CB-NRM mechanism and regularly exchange information and to accumulate lessons learned and good practices.</p> <p>[2-3-1] Assistance for the secretariat on regular meetings</p> <p>[2-3-2] Assistance for the secretariat to keep records of the meetings</p> <p>[2-3-3] Assistance for the secretariat to compile the lessons learned</p>	<p>[2-3-1] and [2-3-2] DP coordination meetings have been conducted 8 times since Feb. 2017 while NGO coordination meetings were held twice in Jan. 2018 and Apr. 2019. The Project supported the preparation of their minutes.</p> <p>[2-3-3] The Project shared a map of DP-supported areas, a case report on the integration of PLUP and CCVA, and common guidelines for watershed management. The communication and cooperation with individual DPs have been continued online even under the spread of COVID-19.</p>
<p>[2-4] Formulate a new set of policy recommendations on further expansion of the CB-NRM mechanism.</p> <p>[2-4-1] Facilitation Support of NDFWMAM to review and evaluate the results of the Policy Recommendations prepared under Phase I</p> <p>[2-4-2] Assistance for NDFWMAM in drafting a new set of policy recommendations</p> <p>[2-4-3] Consultation with CB-NRM platform members on draft policy recommendations.</p> <p>[2-4-4] Finalization and submission of the new set of policy recommendations to the Minister for approval.</p>	<p>[2-4-1] and [2-4-2] Roadmap taskforce engaged in the review of policy recommendations prepared in Phase I and its revisions (including preparation of draft ministerial order, which was one of the recommendations).</p> <p>[2-4-3] The taskforce made a consultation on the draft in the DP coordination meeting.</p> <p>[2-4-4] The taskforce received comments from DPs for finalized policy recommendations. The DG of DGFCIP then approved the policy recommendations. The DG will take an initiative of explaining the draft ministerial order for roadmap implementation to the Minister of MAF, and the order is expected to obtain the approval.</p>
<p>Output 3: Capacities of key operational actors including NDFWM, NGOs and other stakeholders are improved through actual engagement in implementation of the CB-NRM mechanism.</p>	
<p>[3-1] Facilitate the implementation of CB-NRM mechanism in Project Sites, following the manuals developed by Phase I.</p> <p>[3-1-1] Monitoring of the target villages of Phase I on CB-NRM implementation</p> <p>[3-1-2] PLUP in the target villages of the Project</p> <p>[3-1-3] Facilitation of local residents to formulate suco regulations</p> <p>[3-1-4] Assistance for local residents on identification and selection of micro programs to be implemented</p>	<p>[3-1-1] The Project confirmed continued application of suco regulations in 6 target villages of Phase I.</p> <p>In 2017, 2019 and 2021, MAF disbursed follow-up budgets for Phase I target villages for demo-plot maintenance, seedling procurement, support for income generation activities of women's group, and review and monitoring of suco regulations .</p> <p>[3-1-2] and [3-1-3] PLUP (including suco regulations) was conducted in 3 baches.</p> <p>4 target villages of 1st batch (Nov. 2016- Aug. 2017), 3 target villages of 2nd batch (Jun. 2017-Mar. 2018) and 2 target villages of 3rd batch (Jul. 2018-Mar. 2019).</p> <p>[3-1-4] and [3-1-5] MP was conducted for 1st and 2nd batch villages mentioned above:</p>

PDM/PO Activity	Achievement
<p>[3-1-5] Facilitation for implementation of MP</p> <p>[3-1-6] Monitoring on the observance of suco regulations and implementation of MP</p>	<p>Sustainable upland farming MP (1st batch): May 2017-Jun. 2019</p> <p>Sustainable upland farming MP (2nd batch): Mar. 2018-Aug. 2020</p> <p>Seedling production MP (2nd batch): Mar. 2018-Nov. 2020</p> <p>[3-1-6] PLUP Monthly monitoring was conducted in batches.</p> <p>1st batch: Sep. 2017-Aug. 2019</p> <p>2nd batch: Mar. 2018-Oct. 2020</p> <p>3rd batch: Jan. 2019-Nov. 2020</p> <p>Also, MP implementation was monitored, and outputs were compiled. Besides the MPs facilitated by contracted NGOs, the Project supported income generating/livelihood development MP (mushroom cultivation) mainly for community women.</p>
<p>[3-2] Facilitate the establishment and operation of WMC in the Project Sites.</p> <p>[3-2-1] Review on the performance of Noru WMC</p> <p>[3-2-2] Analysis on possible measures for improvement of Noru WMC</p> <p>[3-2-3] Monitoring on the activities of Noru WMC</p> <p>[3-2-4 to 3-2-8] Support for the formation of a WMC in Bemos sub-watershed</p> <p>[3-2-9] Monitoring on the activities of Bemos WMC</p>	<p>[3-2-1] The Project confirmed the effectiveness and functions of Noru WMC in monitoring the observance to suco regulations, coordination of external supports and implementation of collective actions. On the other hand, securing of recurrent budget for regular meetings was identified as a challenge.</p> <p>[3-2-2] The Project discussed the possibility of placing the council at PA level in consideration of proper budget allocation.</p> <p>[3-2-3] The Project participated in the regular meetings, supporting collective request and procurement of seedlings from MAF.</p> <p>Under [3-2-4] to [3-2-8], chefs de sucos and PA administrators of Bemos sub-watershed held a consultation meeting in Jul. 2017. The Project supported the formation of Bemos WMC. The 1st regular meeting of the council was held in Mar. 2018.</p> <p>[3-2-9] Since the formation of the council, the Project attended regular meetings and supported situation analysis, goal setting and planning. In Dec. 2019, Bemos watershed management plan was developed. The Project supported collective request and procurement of seedlings from MAF.</p>
<p>[3-3] Conduct the OJT for the key operational actors in and outside the Project Sites through the implementation of the CB-NRM mechanism in 3-1 and 3-2 above.</p> <p>[3-3-1] Selection of key operational actors</p> <p>[3-3-2] Necessary arrangements for OJT</p> <p>[3-3-3] OJT in the implementation of CB-NRM mechanism</p> <p>[3-3-4] Review of OJT process</p> <p>[3-3-5] Accumulation and listing of information on the trained operational actors</p>	<p>Through [3-3-1] to [3-3-4], The Project organized OJT in the introduction of CB-NRM mechanism at target villages. The Project identified the following as key operational actors:</p> <p>1) NGO/DP which engaged in or were interested in CB-NRM related activities (35 trainees of 20 organizations); NDFAT officials and ETA lecturers (8 trainees); CP (17 trainees of NDFWMAM and Aileu/ Dili Municipality). The OJT was designed according to occupational roles and responsibilities of individual trainees. To increase trainees' involvement in CB-NRM activities, the Project intentionally selected the actors who had clear CB-NRM activity plans as OJT trainees in the 3rd batch.</p> <p>[3-3-5] The Project prepared a list of certified trainees and shared it to DP/NGOs looking for CB-NRM human resources.</p>

2.1.4. Activities for Overall Management

(1) Preparation of Work Plan

At the beginning of the Project, JICA experts discussed basic policies, methods and implementation schedule with CP officials and prepared the draft Work Plan. The draft Work Plan was shared with stakeholders and discussed in the 1st JCC (Joint Coordination Committee) held on October 6, 2016. After the JCC, the Work Plan was finalized and submitted to MAF and JICA.

(2) Preparatory work

1) Organize a kick-off meeting with related governmental institutions

The JICA experts made courtesy calls to Secretary General of MAF, DGFCIP and NDFWMAM and explained the project outline. Then, the experts organized a kick-off meeting with the CPs appointed by NDFWMAM and discussed the draft Work Plan. The issues discussed in the meetings include the following.

- i. As for the OJT of the CB-NRM mechanism, priority should be given to participation of the staff of DPs and NGOs that are likely to implement CB-NRM mechanism (or PLUP) after the OJT.
- ii. Following the practice of Phase I, Aileu Municipality officers will be assigned as CP.
- iii. MAF continues supporting the 6 villages supported by the Phase 1, using the government budget. MAF consults with the JICA experts and the NGOs, which have supported the villages, on how to support their activities.
- iv. The target villages of the Project in Noru sub-watershed should be determined in consultation with Noru WMC.

The JICA experts also discussed the draft PDM and PO and proposed possible revisions. Both PDM and PO were approved in the 1st JCC.

2) Revise the PDM and PO if necessary

Where / when necessary, PDM and PO have been revised throughout the project period. The drafts of revised PDM and PO were prepared at the time of the joint monitoring, and the drafts were discussed and approved in the JCC meetings. The history of revisions is detailed in Section 2.3 below.

(3) Organizing the CB-NRM Stakeholder Workshop

In the first half of the project period, CB-NRM stakeholder workshops were held, in total 3 times, to enhance the understanding of CB-NRM mechanism among stakeholders and cooperation with the DPs. The summaries of the respective workshop are shown in the table below. In addition, the Project held the final stakeholder workshop to share achievements made and lessons learnt by the CB-NRM mechanism and present the outline of JICA GCF project. The details of this workshop will be described under Sub-activity [1-6-6].

Table 2-1-9: Summary of CB-NRM Stakeholder Workshops (1st to 3rd)

1 st Workshop (March 9-10, 2017)	
Purpose	Promotion of understanding on the significance of CB-NRM mechanism in watershed management
Participants	Officials of relevant directorate and departments of MAF and MAF municipality offices, local NGOs and DPs (about 40 participants in Day 1 and 100 participants in Day 2)
Program	[Day 1] Meeting - CB-NRM mechanism and JICA cooperation (JICA experts) - Field experience of CB-NRM implementation (local NGO) - Effectiveness of CB-NRM mechanism in NRM and community development (local NGO) - Case study: Noru WMC (Noru WMC)

	<ul style="list-style-type: none"> - National watershed management council and DP coordination (NDFWMAM) - Case study: Roles of CB-NRM mechanism in watershed management (NDFWMAM) [Day 2] Study tour to Fadabloco (target village of Phase I)
2nd Workshop (March 14 and 22, 2018)	
Purpose	Promotion of understanding on CB-NRM and PLUP for DPs who are planning to adopt PLUP in their projects/ provision of incentives in introduction of CB-NRM mechanism
Participants	Officials of Sustainable Agriculture Productivity Improvement Project (SAPIP) supported by World Bank (WB), government officials of target areas of Conservation International (CI), and local NGOs (about 40 participants for Day1 and 30 participants for Day 2).
Program	[Day 1] After briefing the purpose of the workshop and introduction of CB-NRM, the participants visited Fahisoi Liquidoe (target village of the Project). [Day 2] After briefing the purpose of the workshop and introduction of CB-NRM, the participants visited Madabeno (target village of Phase I).
3rd Workshop (June 27-29, 2018, co-hosted with FAO)	
Title	National Workshop on CB-NRM and CF in Timor-Leste
Purpose	<ol style="list-style-type: none"> 1) Information sharing on CB-NRM and CF in Timor-Leste and other Asian countries. 2) Presentation and discussion on the drafts of CB-NRM roadmap and National CF Strategy 3) Discussion on the approach for expansion and upscaling of CB-NRM and CF
Participants	[June 27] Municipal administrators, directors of MAF municipal office, chiefs of forestry/extension departments of municipality office, MAF officials, DPs and local NGOs (about 120 participants) [June 28-29] Chiefs of forestry/extension departments of municipality office, MAF officials, local NGOs (about 70 participants)
Program	June 27: Introduction of CB-NRM and CF and lessons learned (the Project, FAO, GIZ, UNDP, Conservation International (CI), World Vision, RECOFTC, MAF) June 28: Study tour to the target villages of CB-NRM and CF June 29: Presentation and discussion on drafts of CB-NRM roadmap and National Community Forestry Strategy Discussion on the approach for expanding and upscaling CB-NRM and CF

A first workshop focused on the introduction of CB-NRM and its significance in watershed management to central and regional MAF officials as well as local NGOs. Afterwards, it turned out that several DP-supported projects (e.g. SAPIP by WB, Partnership for Sustainable Agro-Forestry (PSAF) by EU, and a project of Conservation International (CI)) planned to conduct PLUP in about 100 villages. Against this background, a second workshop was held with the aim of sharing the methods and outputs of the CB-NRM mechanism, especially of PLUP, with the participation of chefs de sucos, PA administrators, forest guards and DP officials.

In 2018, the Project had a series of discussion with FAO, which supported the formulation of “National Community Forestry Strategy 2018-2030” to create synergy impacts between CF and CB-NRM. The Project and FAO co-hosted the third stakeholder workshop, involving key national stakeholders, which helped build a common understanding that the expansion of CB-NRM mechanism is indispensable for effective implementation of National Community Forestry Strategy.



(4) Training in Japan

In the project period, two training courses were held in Japan (see the table below). Based on the knowledge obtained in the training, CP officers who had participated in the training, promoted mushroom cultivation as part of income generating/livelihood development MP for women in some target villages.

Table 2-1-10: Outline of training courses in Japan

1 st Training (April 15-29, 2017)	
Course name	Participatory Natural Resource Management and Watershed Management
Trainee	NDFWMAM officials (2), MAF Aileu officer (1)
Purpose	To learn forestry and forest management planning, natural resource management (NRM) for community-based watershed management in Japan and develop action plans based on lessons learned.
Schedule	<p>1st week (April 17 to 22): lectures and visits to relevant institutions in Tokyo area.</p> <ul style="list-style-type: none"> • Forests and forest management planning in Japan (lecture) • Roles and functions of forestry union and forestry office (visit to Tokyo Forestry Union/ Tokyo Forestry Office). • Policies of participatory forest management in Japan and Asia (lecture) <p>2nd week (April 23 to 28): case study in Mie Prefecture</p> <ul style="list-style-type: none"> • Regulations and basic plans of forest and forestry in Mie Prefecture (lecture) • Case study of community-based environmental conservation at watershed level (site visits) • Preparation of report and Action plan (AP)
AP implementation status	<p>[Use of bamboo trees for disaster management and reforestation]</p> <p>2 trainees started planting bamboo for reforestation and preventions of disasters. They procured 4,000 bamboo seedlings from the government nursery and planted them in Suco Asumau of Aileu Municipality. The trainees explained the importance of reforestation and advised communities on the proper selection of planting sites based on the learnings of the training.</p> <p>[Mushroom cultivation for income generation]</p> <p>1 trainee proposed mushroom cultivation as a means of women's income generation. Under the support of the Project, mushroom cultivation and processing have been introduced to target villages.</p>
2 nd Training (December 7-22, 2019)	
Course name	Participatory Natural Resource Management and Watershed Management
Trainee	NDFWMAM (1), Director and officers of MAF Aileu office (4) NDFWMAM participated in the training course from 8 to 14 of December, 2019)
Purpose	To learn the policies and regulations on forest and watershed management at regional level in Japan and reflect the knowledge and experience in CB-NRM activities and formulation of relevant decrees and policies.
Schedule	<p>1st week: lectures and site visits in Tokyo area</p> <ul style="list-style-type: none"> • Forest and forest management plans in Japan, case study of agroforestry (lecture) • Roles and functions of forestry union and forestry office (visit to Tokyo Forestry Union/ Tokyo Forestry Office).

	<ul style="list-style-type: none"> Soil conservation at prefectural level (Kanagawa Prefecture Nature Conservation Center) 2nd week: Case study of forest and watershed management policies and participatory natural resource conservation in Kochi Prefecture Forest resources and prevention of landslide disasters (lecture) FSC (Forest Stewardship Council) certification through forestry cooperative (Yusuhara Town) Prefectural regulations on conservation of Shimanto River (lecture) Practice of environmental conservation agriculture, mushroom cultivation (site visit) Preparation of report and Action plan (AP)
AP implementation status	<p>[Promotion of watershed management]</p> <p>1 trainee (director of MAF Aileu) increased the involvement in the work of watershed management councils and supported their applications of seedling distributions with local NGOs.</p> <p>[Promotion of sustainable agriculture]</p> <p>The trainees promoted mushroom cultivation in target villages of the Project. One trainee made technical advice and monitoring for agricultural methods in Suco Fahisoi L. With the technical advice of Japanese experts, the trainee applied preventive measures of pest and diseases for citrus trees.</p>



(5) JCC and Joint Monitoring

Throughout the project period, JCC meetings were held for discussion and confirmation on the progress of activities and achievements of the Project. The following table shows the summary of the respective JCC meetings.

Table 2-1-11: Summary of JCC meetings

1 st Meeting (October 6, 2016)	
Agenda	<ul style="list-style-type: none"> Review of Phase I Discussion and approval of the Work Plan Discussion and approval of the Monitoring Sheet (MS) Ver. 01
Major comment	<ul style="list-style-type: none"> Needs for measuring the impacts of CB-NRM mechanism Importance of involving agricultural training institutes in the Project Importance of collaboration between the NGOs and MAF extension officers and follow-up of the government in sustaining project outputs
2 nd Meeting (September 28, 2017)	
Agenda	<ul style="list-style-type: none"> Discussion on progress and achievements from August 2016 to August 2017 Discussion and approval of MS Ver. 03
Major comment	<ul style="list-style-type: none"> Necessity of further collaboration among MAF NDs of JCC (e.g. in agribusiness promotion). How to understand the 14 high priority watersheds for CB-NRM mechanism expansion and how to promote the expansion (e.g. prioritization criteria and approach for collaboration with other DPs).

3 rd Meeting (October 15, 2018)	
Agenda	<ul style="list-style-type: none"> • Interim project report (including introduction of the roadmap draft) • Discussion and approval of MS Ver. 05 (including approval of PDM Ver.03)
Major comment	<ul style="list-style-type: none"> • Outputs of CB-NRM mechanism at field level. • Needs for measuring the impact of CB-NRM mechanism for wider recognition among stakeholders. • Needs for further collaboration with JCC members (e.g. soil pH assessment and control at MP demo-plots in cooperation with NDFAT)
4 th Meeting (January 21, 2022)	
Agenda	<ul style="list-style-type: none"> • Draft of project Completion Report • Draft Ministerial Order for Promotion and Expansion of CB-NRM • NDFWMAM activities for promotion and expansion of CB-NRM with government budget • Awarding ceremony for CPs (certification of CB-NRM Technical Coordinator)
Major comment	<ul style="list-style-type: none"> • Small river/stream management is important including check dam construction in addition to CB-NRM mechanism. NDFWMAM oversees the management and thus expected to promote both in an effective manner. • Inter-ministerial cooperation is important for the promotion and expansion of CB-NRM mechanism. • Advice to the finalization of ministerial order: clarification of the government’s mandate of succeeding the work of CB-NRM expansion even after DP interventions for sustainability; simplification of contents, etc.



1st JCC meeting (review of Phase I)



2nd JCC meeting (progress and outputs of one-year implementation)



4th JCC meeting (commemorative photo after the meeting)

2.1.5. Activities for Output 1

The Project conducted the following activities for Output 1.

- [1-1] Identify issues to be addressed and measures to be taken for further expansion of the CB-NRM mechanism in major watershed in Timor-Leste
- [1-2] Develop a skeleton framework of the roadmap to expand the CB-NRM mechanism
- [1-3] Draft the roadmap to expand the CB-NRM mechanism
- [1-4] Analyze detailed information on high priority watersheds in order to assist MAF in formulating the implementation plan for the CB-NRM roadmap, using external funds
- [1-5] Obtain agreement and official endorsement by MAF on the roadmap
- [1-6] Assist MAF in preparing for the implementation of the CBNRM roadmap

Among the above-mentioned activities, Activity [1-4] and [1-6] are interlinked, as the former activity was conducted for formulation of JICA GCF project as part of the roadmap implementation and the latter was undertaken for its preparation. As these two activities were conducted in succession, they will be described after detailing the activities for the roadmap formulation, i.e., Activity [1-1], [1-2], [1-3] and [1-5].

- [1-1] Identify issues to be addressed and measures to be taken for further expansion of the CB-NRM mechanism in major watershed in Timor-Leste
 - [1-1-1] To gather information on relevant policies, programs, strategies and guidelines related to CB-NRM from various institutions and projects in the past
 - [1-1-2] To analyze the gathered information to identify the issues to be addressed and measures to be taken

The JICA experts discussed and exchanged information with relevant agencies and projects at the inception of the Project in August 2016. Based on these discussions, the experts conducted a stakeholder analysis and compiled the results as a report. Since then, the Project has promoted the collaborations for the expansion of the CB-NRM mechanism with different DPs (See the table below.)

Table 2-1-12: Profiles of major DP projects and collaboration with the Project

DP project	Major activity	Interests and issues in CB-NRM promotion and expansion	Collaboration with the Project
EU-GCCA	Improvement of meteorological data system CCVA Pilot projects at community level	<ul style="list-style-type: none"> • Interested in PLUP implementation. • Concerned with capacity development of staff and compatibility between PLUP and CCVA. 	<ul style="list-style-type: none"> • Participation of 3 officers in PLUP OJT. • Joint development and pilot application on integration of PLUP and CCVA
USAID-Avansa	Value chain development of horticultural crops Promotion of NRM Nutrition improvement	<ul style="list-style-type: none"> • Interested in PLUP implementation. • Concerned with capacity development of staff members 	<ul style="list-style-type: none"> • Participation of 5 officers in PLUP OJT. • Trial implementation of PLUP in an Avansa's target village.

DP project	Major activity	Interests and issues in CB-NRM promotion and expansion	Collaboration with the Project
FAO-CAP ⁶	Introduction of conservation agriculture Land management at municipal level Adaptation to climate change and disasters	<ul style="list-style-type: none"> Recognized significance of PLUP and already introduced in their project activities. Experienced the effectiveness of CB-NRM in raising awareness of proper land use among community members, promoting CAP implementation. 	<ul style="list-style-type: none"> PLUP implementation in 13 target sucos of FAO-CAP Application of conservation agriculture techniques in the demo plots in the sucos supported by the Phase 1.
FAO Project for Strengthening National Forest Policy	Support for finalization of Forest Law and the revision of Forestry Sector Policy. Formulation of action plan for the above-mentioned law and policy.	<ul style="list-style-type: none"> Addressed a need for promoting deeper understanding on CB-NRM mechanism among stakeholders in forest sector. Compatibility between CF (promoted by FAO) and CB-NRM should be examined. 	<ul style="list-style-type: none"> Information sharing on CB-NRM mechanism through field visits and meetings Activities to secure the compatibility between National CF Strategy (formulation supported by FAO) and CB-NRM roadmap.
UNDP-DARDC ⁷	Community-based disaster risk management (vulnerability assessment for micro watersheds and adaptation activities)	<ul style="list-style-type: none"> Interested in PLUP implementation. 	<ul style="list-style-type: none"> Briefing of PLUP to the field staff and a study tour to show a PLUP field workshop
UNDP Mangrove Project ⁸	Support for policy / institutional framework for coastal management Mangrove rehabilitation and protection including coastal vulnerability assessment	<ul style="list-style-type: none"> Interested in PLUP implementation. 	<ul style="list-style-type: none"> Sharing the experience of the CB-NRM mechanism and providing comments to the draft report on coastal vulnerability assessment
WB-SAPIP	Smallholder organization and agriculture business plan development Watershed Management and Improving Productivity and Incomes	<ul style="list-style-type: none"> Interested in overall CB-NRM mechanism implementation. With the recommendation from MAF, SAPIP adopted PLUP and formation of watershed management council. Looking for capable local NGOs for field operations. 	<ul style="list-style-type: none"> Introduction of the CB-NRM mechanism at a preparatory workshop for SAPIP CB-NRM stakeholder workshop, inviting suco leaders and other stakeholders in the target area of SAPIP Support for matching with local NGOs.

[1-2] Develop a skeleton framework of the roadmap to expand the CB-NRM mechanism

[1-2-1] To gather information on relevant policies, programs, strategies and guidelines related to CB-NRM from various institutions and projects in the past

The JICA experts participated in the activities for revising Forest Law and Forest Sector Policy, which were supported by FAO, to exchange ideas and share information on the CB-NRM mechanism in October 2016 and January 2017. Forest Law defines the basic principle and rules for forest management based on national and community needs and was enacted in December 2017. Its Article 5 recognizes community's customary rights for forest use and management and Article 6 addresses the need of sustainable forest management with community initiatives. Based on this law, Forest Sector Policy was revised and published in May 2017: it sets the goal of "effective protection of the ecological integrity and biological composition of not less than 70 percent of the area of forests by 2030". With the technical

⁶ CAP: Conservation Agriculture Project

⁷ DARDC: Dili-Ainaro Road Development Corridor

⁸ Official name is "Building Shoreline Resilience of Timor-Leste to Protect Local Communities and their livelihoods"

inputs from the Project, the policy identifies PLUP as an effective means of community-based forest and watershed management as well as reforestation and land recovery⁹.

Table 2-1-13: Project inputs to the revision of Forest Law and Forest Sector Policy

Date	Activity	Undertaking by the Project
October 4, 2016	Regional consultation meeting on the revision of Forest Law	Grasped the overview of the draft of revised Forest Law
October 5, 2016	Field visit to a target village of Phase I.	Promoted the understanding of the revision team (including MAF and FAO) on the CB-NRM mechanism.
January 10, 2017	Workshop for policy dialogue	Gathered stakeholders' comments on the action plan for Forest Law and capacity development.
January 12, 2017	Workshop for capacity development in the forestry sector	Provided the presentation on the CB-NRM mechanism, especially on CD of field-level actors (community and local NGO) through OJT
January 13, 2017	Field visit to a village supported by Phase I for study team of capacity development in the forest sector	Arranged the field visit and promoted the understanding on the CB-NRM mechanism for the study team



Regional consultation meeting on the revision of Forest Law



Field visit of the team of the revision for Forest Sector Policy

[1-2-2] To determine a broad time frame for CB-NRM expansion to the major watersheds

[1-2-3] To draft the skeleton framework of the roadmap

Following the revised Forest Sector Policy, the JICA experts discussed with DGFCIP and agreed to formulate the roadmap as a means of implementing the policy. Based on this agreement, the Project set the time frame of the roadmap, which was to expand the CB-NRM mechanism in major watersheds by 2030, as stipulated in the policy.

Box: Framework of the Roadmap

- Chapter 1: Introduction
- Chapter 2: Current Situation (Forest Area, Policy, Legislative Framework, Key Actors, Major Drivers of Deforestation and Forest Degradation, etc.)
- Chapter 3: Prioritization of Watershed (Evaluation Criteria, Results of the Evaluation, etc.)
- Chapter 4: CB-NRM Mechanism (Results of the JICA Project, Activities, etc.)
- Chapter 5: Goal, Objective, and Strategies
- Chapter 6: Action Plan for expansion of the CB-NRM Mechanism
- Chapter 7: Implementation Plan of the Roadmap
- Chapter 8: Estimated Budget
- Chapter 9: Monitoring and Evaluation

⁹ <https://leap.unep.org/countries/tl/national-legislation/national-policy-forests-timor-leste-may-2017>

Through the discussion with DGFCIP from April to May 2017, the Project developed a framework of the roadmap as shown in the Box.

[1-3] Draft the roadmap to expand the CB-NRM mechanism

[1-3-1] To organize a committee/task force to prepare the roadmap

For effective technical transfer, it was required that key officials at the CP side were organized into a taskforce which could examine and absorb advice provided by the JICA experts, developing their own capacities for operationalizing the roadmap. The modality of co-working could also create a sense of ownership among them. Based on these recognitions, the JICA experts held the kick-off meetings in October 2016 and February 2017 with the NDs and the chiefs of departments under DGFCIP for brainstorming initial ideas of the roadmap. In the kick-off meetings, the roadmap concept was discussed, and necessary procedure and activities for roadmap formulation were proposed. After the meetings, DGFCIP issued a letter that assigned them officially as the member of the roadmap taskforce (April 2017). The membership and the role of each member are detailed in the table below.

Table 2-1-14: List of roadmap taskforce members

Role/Function	Assigned official
Taskforce Leader	National Director of NDFWMAM
Advisor	National Director of National Directorate of Nature Conservation (NDNC)
Advisor	National Director of National Directorate of Coffee and Industrial Plants (NDCIP)
Coordinator (Main)	Chief of Dept. of Watershed Management, NDFWMAM
Coordinator (Acting)	Chief of Dept. of Reforestation and Soil and Water Conservation, NDFWMAM
Members (10)	Coordinator for Cabinet of DGFCIP, Head of Dept. of Community Forestry (NDFWMAM), Head of Dept. of Protected Areas (NDNC), Head of Dept. of Development and Management of Natural Tourism (NDNC), Head of Dept. of Protection and Forestry Extension (NDNC), Head of Dept. of Conservation and Biodiversity (NDNC), Head of Dept. of Coffee Promotion (NDCIP), Head of Dept. of Production for Annual Plants (NDCIP), Head of Dept. of Conservation and Rehabilitation of Industrial Plants (NDCIP)
Secretariat	JICA Experts

[1-3-2] To hold a series of meetings to assess the situations (i.e., on implementation of the policy recommendations for CB-NRM expansion, capacity development of key operational actors and information derived through the CB-NRM platform) to discuss the roadmap

[1-3-3] To draft the roadmap in consultation with NDFWM and MAF officers

[1-3-4] To finalize the roadmap in a compiled document

The Project arranged a series of taskforce meetings. In principle, the JICA experts prepared draft agenda and materials based on consultation with DGFCIP prior to the meeting. They were then presented at the meeting for discussion and refinement by other taskforce members (i.e. the CP officers). The meeting was held in a workshop style, where stakeholder and problem analyses were made, which enhanced the ownership of the members for the roadmap. Given the financial situation of the government, it was foreseen that there would be a need for securing external funds, e.g., GEF¹⁰ and GCF¹¹ for roadmap

¹⁰ Global Environment Facility

¹¹ Green Climate Fund

implementation. With this need in mind, the Project made efforts to prepare the draft roadmap ahead of schedule. The table below summarizes the process of the draft preparation before consultation with MAF high-level officials and other stakeholders. Incidentally the taskforce also reviewed and revised the policy recommendations for CB-NRM expansion developed by Phase I. The activities for this revision will be detailed in Section 2.1.6.

Table 2-1-15: Summary of the roadmap taskforce meetings

Period	Meeting	Contents
October 2016	1 st Meeting	Introduction of CB-NRM mechanism and concept of the roadmap
February 2017	2 nd Meeting	Need for formation of the taskforce (roles and functions)
April 2017		Official establishment of the taskforce
May 2017	3 rd Meeting	Outline of the roadmap and the work plan
July 2017	4 th Meeting	Stakeholder analysis on government agencies, DPs, and NGOs
October 2017	5 th Meeting	Situation analysis (including forests), problem analysis, evaluation of priority watersheds
December 2017	6 th Meeting	Goal, objective, and strategies of the roadmap
March 2018	7 th Meeting	Sharing of progress on the draft roadmap / Discussion on action plan
June 2018		First draft (interim version) completed and shared in the 3 rd CB-NRM Stakeholder Workshop
July 2018	8 th Meeting	Draft action plan and institutional framework for roadmap implementation
August-October 2018		Refinement of 1 st draft of the roadmap (confirmation and identification of watershed and sub-watershed boundaries with GIS data, identification of posts-administrative and villages in respective priority/critical watersheds and their prioritization)
November 2018	9 th Meeting	Review of 2 nd draft of the roadmap/ Review of the Policy Recommendations prepared in Phase I
December 2018- January 2019		Receiving comments from the taskforce members on the 2 nd draft and the Policy Recommendations and reflecting them into the drafts (mainly undertaken by JICA experts)
February 2019	10 th Meeting	Discussion on the revision of Policy Recommendations
March-May 2019		Refinement of the roadmap (slope map, river system, stakeholder data incl. DPs) and preparation of the Revised Policy Recommendations for CB-NRM Expansion (primarily undertaken by JICA experts)
May 2019	11 th Meeting	Confirmation of the draft Policy Recommendations/ Preparation of consultation meetings
July 2019	12 th Meeting	Implementation plan of consultation meetings/ Assignment of roles and responsibilities among members
August- September 2019		Completion of 2 nd draft of the roadmap



Taskforce meeting (stakeholder analysis)



Presentation on the 1st draft of the roadmap
(3rd CB-NRM Stakeholder Workshop)

The following table shows the summary of the roadmap. (See Attachment 5 for details.)

Table 2-1-16: Outline of the CB-NRM Roadmap

Outline of the Roadmap
<p><u>Chapter 2: Present Conditions of the Forest Sector</u> Forest areas, deforestation trends and distribution of forests by municipality, socio-economic status (incl. gender), analysis on the characteristics and resources of main stakeholders (MAF agencies, DP-supported projects, international and national NGOs, research institutes), and analysis on relevant laws, regulations, policies, strategies and plans.</p>
<p><u>Chapter 3: Evaluation of the Watersheds</u> To select priority watersheds, the roadmap first identifies 29 watersheds with the total area of equal to/more than 10,000 ha out of all 191 watersheds nationwide. The identified priority watersheds are then evaluated and prioritized with the criteria shown below. As a result, 14 watersheds are selected as “High Priority Watersheds.” (See Figure 2-1-1.)</p> <ol style="list-style-type: none"> 1) Protection of water source (size of rice field in the downstream/ existence of a water intake/source of a drinking water supply system) 2) Soil conservation (proportion of steep sloping areas) 3) Biodiversity conservation (size of forests which overlap with the protected area) 4) Forest resources (forest coverage rate, ratio of dense forest in total forest area) 5) Urgency (average annual deforestation rate between 2003 and 2012)
<p><u>Chapter 4: Overall Framework of the CB-NRM Mechanism</u> Framework of the CB-NRM mechanism, key steps in the process, timeframe and expected outputs.</p>
<p><u>Chapter 5: Goal, Objectives and Strategies of the Roadmap</u> Goal: Forests and other natural resources, e.g., lands and water in the 14 high priority watersheds are protected and managed in collaboration with local communities in a proper and sustainable manner. Main objective: All the villages geographically related to the 14 high priority watersheds will introduce and establish the CB-NRM mechanism by the end of 2030. Subsequently, key strategies to achieve goal and objectives are presented for short, medium and long terms.</p>
<p><u>Chapter 6: Action Plan of the Roadmap</u> Key components, target villages and implementation period to achieve the goal and objectives are presented. Component 1: Expansion of the CB-NRM Mechanism Component 2: Development of Watershed Management Mechanism Component 3: Implementation of Community Forestry (CF) and Promotion of Sustainable Forest Management (SFM) Component 4: Public Awareness Raising Component 5: Institutional and Capacity Development Component 6: Program Management, Planning, and Monitoring and Evaluation (M&E)</p>
<p><u>Chapter 7: Mechanism and Institutional Framework for Implementation of the Roadmap</u> Central Steering Committee consisting of GDFCIP as the chair, NDs, Municipal Administrative Offices and MAF Municipal Offices concerned as members, will be established. The Central Committee will coordinate with respective Municipal Management Committees consisting of Municipal Administrator as the chair, MAF Municipal Office, SAS, Environmental Office, Post-Administrators, Villages and NGOs as members. Roles and responsibilities of respective government authorities and other stakeholders are also articulated. As the source of finance, external funds such as those of GCF, GEF and DPs are identified. The phases of intervention are geographically clarified by prioritizing the 58 posts-administrative in 13 municipalities.</p>
<p><u>Chapter 8: Estimation of Indicative Cost</u> Indicative cost for implementation of action plan is presented for the entire period.</p>
<p><u>Chapter 9: Proposed Monitoring and Indicators/Milestones</u> Milestones are set to measure the progress and achievements including the following. Milestones in 2024: A new ministerial order for expansion of CBNRM. The number of villages with CB-NRM in place to be doubled. Milestones in 2027: The number of villages with CB-NRM in place to be doubled from that in 2024. Watershed management councils to be formed for all the posts-administrative in the 14 watersheds. Milestones in 2031: All the sucos in the 14 watersheds introduce the CB-NRM mechanism. The long-term land use rights to be granted to more than 90 sucos in the 14 watersheds.</p>

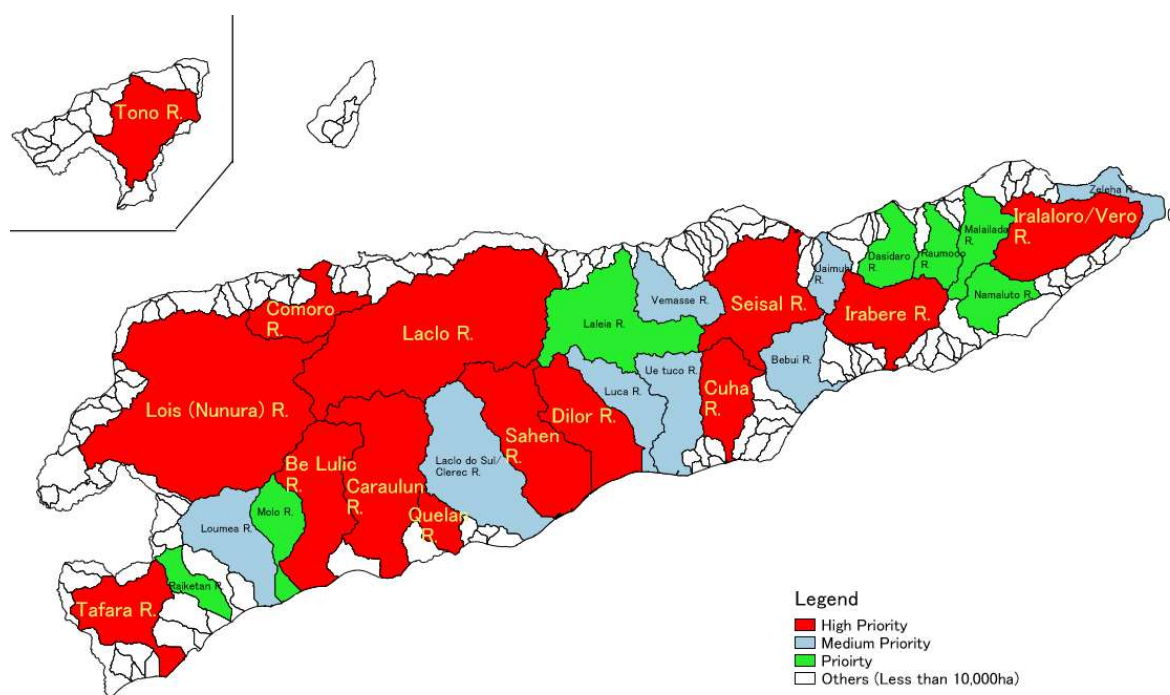


Figure 2-1-1: Priority Watersheds in the Country

[1-5]¹² Obtain agreement and official endorsement by MAF on the roadmap

[1-5-1] To explain the initial draft of the roadmap to the relevant authorities and stakeholders in MAF

The Project completed drafting the roadmap in September 2019 and started meetings for consultation with MAF officials, DPs and NGOs in October 2019. The meetings were held at the centers of 3 regions in the country. At each meeting, the taskforce members, including the JICA experts, introduced i) outline of the Project, ii) draft policy recommendations, iii) draft CB-NRM roadmap, iv) draft ministerial order for expansion of the CB-NRM mechanism, and v) outline of the upcoming JICA GCF project. The participants raised questions over the impacts of the CB-NRM mechanism and roles of the municipalities in the roadmap and proposed a necessity of involving related government agencies.

Initially, in addition to the regional consultation, the Project planned to have a meeting for MAF high-level officials, DPs and NGOs in Dili; however, the meeting was postponed due to the spread of COVID-19 in 2020. It was much later conducted as part of the meeting for the refinement of the roadmap under Activity [1-5-2].

Table 2-1-17: Consultation meetings (before the spread of COVID-19)

Period	Target region	Participants
<u>1st Meeting</u> October 2019	Central Region (Region 3)	Aileu Municipality Administrator, directors of MAF Municipality Offices (Liquica, Bobonaro, Ermera), local NGOs (about 30 participants)
<u>2nd Meeting</u> November 2019	Eastern Region (Region 1)	Municipality Administrators of Lautem and Manatuto, directors of MAF Municipality Offices (Lautem, Manatuto, Baucau, Viqueque), local NGOs

¹² As mentioned in the beginning of this section, Activity [1-4] (support for GCF project application) and [1-6] (support for the preparation of JICA GCF Project) are directly related, these activities will be described after Activity [1-5].

Period	Target region	Participants
		(about 25 participants)
3 rd Meeting November 2019	Southern Region (Region 2)	Municipality Administrator of Manufahi, directors of MAF Municipality Offices (Manufahi, Covalima, Ainaro, Ermera), local NGOs, DP (SAPIP) (26 participants)

[1-5-2] To organize a series of discussions for elaboration of the roadmap

As mentioned above, there was “a blank period” after the 3rd consultation meeting, during which the JICA experts, while staying in Japan, focused on the support for the development of the GCF proposal as well as the revision of the draft roadmap based on the comments received in the consultation meetings and in negotiation with GCF. In January 2021, MAF formulated a five-year strategic document, namely, MAF Strategic Plan 2021-2025, and reorganized its structure including the establishment of a new department for CF within DGFCIP. These changes were also reflected in the revision of the roadmap.

In April 2021, the JICA experts discussed with DGFCIP and NDFWMAM on the process of finalizing the roadmap. As a result, it was agreed that the taskforce would first confirm and internalize the contents of the revised roadmap and then hold a series of consultation meetings with MAF high-level officials and the stakeholders of DPs and NGOs. Based on this agreement, the taskforce meeting was resumed in May 2021, more than two years after the spread of COVID-19. The table below indicates the process of finalization of the roadmap, in which the meetings was held in a hybrid style of online and physical communication, so that both the CP officials and JICA experts could make substantial contribution to the discussion.

Table 2-1-18: Process of finalizing the CB-NRM roadmap

Period	Meeting	Contents
May 2021	13 th Meeting	Confirmation of the revised roadmap draft prepared in the blank period under COVID-19 pandemic
June 2021	14 th Meeting	Confirmation of revised policy recommendations and ministerial order
July 2021	15 th Meeting	Review on the contents of approved GCF project
August 2021	16 th Meeting	Preparation of consultation meetings for MAF high officials and DPs and NGOs
September 2021	Consultation meeting for MAF high officials Participants: Director General of Fisheries, Advisor to Minister, Advisor to Vice Minister, National Director of Legal Support Unit, officials of National Directorate of Agriculture and Horticulture, Fishery, Veterinary, Irrigation, Agricultural Statistics (17 participants)	
October-November 2021	Additional revisions based on the comments from the consultation meeting Preparation of consultation meeting for DPs and NGOs	
December 2021	Consultation meeting for DPs and NGOs. Participants: EU/GIZ, FAO, CI, RAEBIA, Care International, World Vision, Plan International, PERMATIL, Oxfam, F-COTI (16 participants)	

In the consultation meeting for MAF high officials, there were questions on the effects of CB-NRM mechanism and suggestions for further collaboration with DPs that have been already engaged in CB-NRM activities with involvement of Secretary of State of Environment. In addition, National Director of Legal Support Unit explained the detailed process for documentation and officialization of the

ministerial order. In the consultation meeting with DPs and NGOs, there was a discussion on the linkage between CB-NRM and CF. Since the CB-NRM mechanism proved to be effective in building consensus on land use among community members, it was well recognized that CF should come after the introduction of the CB-NRM implementation to the community.

[1-5-3] To submit the final draft to respective authority in MAF for approval and endorsement

After refinement and consultation with stakeholders through Sub-activity [1-5-2], the Project submitted the final draft of the roadmap to DGFCIP in February 2022. Since the roadmap is defined as a technical tool for the implementation of Forest Sector Policy, it was confirmed that the document could be finalized with the approval of DGFCIP. On February 16, 2022, he signed for the approval and the roadmap was finalized. From now on, DGFCIP will lead the process of finalizing the draft ministerial order, including explanation to and consultation with H.E Minister, to endorse the implementation of the roadmap as an utmost priority issue of the MAF.

[1-4] Analyze detailed information on high priority watersheds in order to assist MAF in formulating the implementation plan for the CB-NRM roadmap, using external funds

[1-4-1] To assess the effectiveness of the CB-NRM mechanism on climate change

[1-4-2] To analyze the impacts of the CB-NRM mechanism on forest conservation, using satellite images

[1-4-3] To collect the basic data of forest biomass in target watersheds

[1-4-4] To provide a future scenario on NRM by communities in target watersheds

[1-4-5] To formulate action plan based on gender analysis

[1-4-6] To develop environmental and social action plan or framework

[1-4-7] To carry out economic analysis

[1-4-8] To carry out stakeholder analysis

[1-4-9] To propose implementation arrangement

[1-4-10] To facilitate consensus building among stakeholders on the draft implementation plan

The Project shared the draft roadmap from early stage of its development with CPs and DPs as a living document, so as to attract their interests in the expansion of the CB-NRM mechanism. After presenting the interim draft of the roadmap in the 3rd Stakeholder Workshop, the Project reflected the stakeholders' comments into the roadmap, while refining its contents in consideration of national policy and international trend on climate change. In addition, the Project started preparing Concept Note (C/N) for the Simplified Approval Process (SAP) of GCF in collaboration with DGFCIP and JICA with the aim of securing funds for roadmap implementation. In March 2019, the draft C/N was presented by DGFCIP to the relevant government authorities under coordination by NDA. Having obtained their approval on the C/N, JICA submitted the C/N to the GCF Secretariat at the end of the same month. It received a

positive signal from them, being allowed to proceed with development of the Funding Proposal (FP). It was June 2019, when the Project started the support for FP preparation.

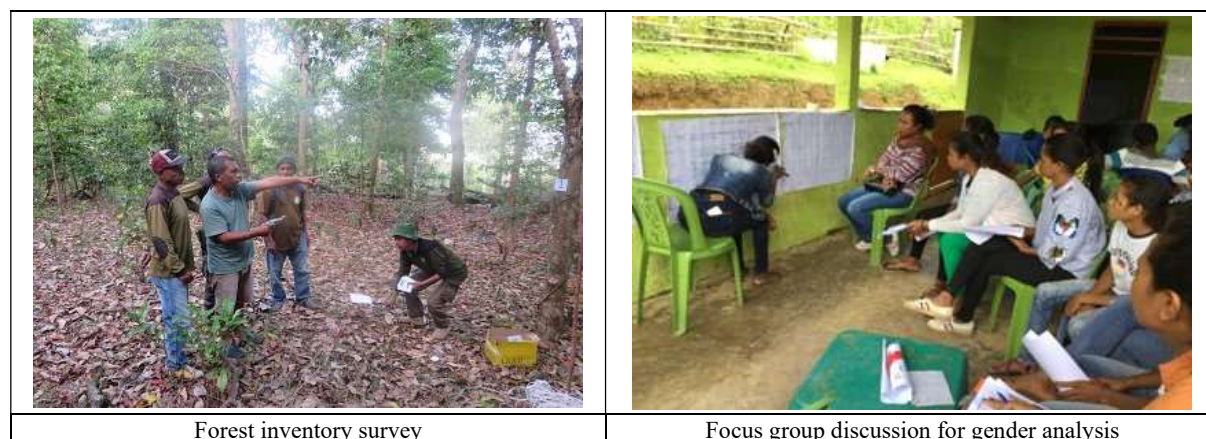
The following tables shows the outputs of sub-activities from [1-4-1] to [1-4-10] and how their outputs contributed to the FP (including its Annexes and Appendices). The supporting activities started in October 2019 and ended in June 2020, when JICA submitted the 1st version of FP to the GCF.

It should be noted here that, for GCF, the applicant is required to revise the FP based on comments and technical advice provided by assessors at each step of the appraisal. If the revisions are considered insufficient at any stage, the FP will be disqualified. The submission to the GCF Board leads, in many cases, to the approval of the FP. The process of FP approval will be described under Activity [1-6].

Table 2-1-19: Outputs of Activity [1-4]

Sub-activity	Output	Contribution to FP and the GCF project
[1-4-1] Assessment on the effectiveness of the CB-NRM mechanism on climate change	As stated in [1-4-2], the assessment confirmed the effectiveness of the CB-NRM mechanism for both mitigation and adaptation for climate change. Based on this result, the Project proposed the application of PLUP/CCVA, which was developed in collaboration with GIZ, for the formulation of CBAP. The detailed implementation methods are presented in the Appendix in Annex 2 of the FP.	GCF Project Activity 1.1.1 Annex 2: Pre-feasibility Study, Sec. 8.3.2 and Appendix 8-1
[1-4-2] Analysis on the impact of CB-NRM mechanism for forest conservation [1-4-3] Basic data of forest biomass in target watersheds	The Project made satellite image analysis on the degradation rate of dense forests, comparing the data of sample villages with the introduction of CB-NRM mechanism in Phase I and those without it. The result showed the degradation rate has been reduced at the villages of Phase I. The Project also conducted a forest inventory survey for collecting forest biomass data and quantified the impact.	FP: Para 6-9, 23-26, 48 Annex 2: Sec. 5.4 and 6.2.4 Annex 9: Economic Analysis Annex 14: GHG Accounting
[1-4-4] Provision of a future scenario on NRM by communities in target watersheds	The Project collected the data on current status of agriculture and forestry and natural resource use in target communities and made a projection on the climate change based on existing data as well as impact on agriculture and other economic activities.	FP: Para 28-33, 170, 178 Annex 2: Chapter 6 (esp. Sec. 6.3)
[1-4-5] Formulation of action plan based on gender analysis	The Project proposed measures for climate change after conducting a gender analysis in sample villages of target watersheds (focus group discussion in each village with participation of 10-30 female and male village members) and confirming the different perceptions by gender on the impact of climate change at the community level.	FP: Para.127, 184, 185 Annex 2: Sec.6.3, 6.4 and 6.5 Annex 4: Gender Assessment
[1-4-6] Formulation of environmental and social action plan or framework	Referring to the guidelines of GCF and JICA as well as relevant laws and regulations of the government, the Project identified potential risks in respective activities of GCF project, undertook screening and presented mitigation measures for different risks. With the screening result, the GCF project is classified as Category C.	FP: Para.128 Annex 2: Chapter 10 Annex 10: Environmental and Social Action Plan
[1-4-7] Economic analysis	Following the formats and guidelines designated by the GCF, the Project calculated the costs of each activity by implementation year. The co-financing arrangement by GCF, JICA and MAF was presented accordingly. The benefits of the GCF project were evaluated in monetary terms based on 1) reduced CO ₂ emission by reduction of deforestation, 2) increased maize production through the application of sustainable upland farming, and 3) absorbed CO ₂ through reforestation. The Project conducted the economic analysis using the discount rate of 11.87% based on the real interest rate in Timor-Leste for the last 5 years and confirmed the EIRR of 18.7%.	FP: Para. 198 Annex 2: Chapter 11 and 12 Annex 3: Budget Plan Annex 9: Economic Analysis

Sub-activity	Output	Contribution to FP and the GCF project
[1-4-8] Stakeholder analysis	The Project identified target watersheds, where DPs can collaborate without duplications of interventions with the data collected through DP coordination. Roles of relevant government agencies (central and municipal levels) in GCF project were clarified and listed while the activities and issues of DPs working with MAF and NGOs were identified. The Project also proposed an implementation and monitoring system at central, PA and suco levels.	FP: Para. 52-53 Annex 2: Sec. 3.5 and Chapter 4
[1-4-9] Implementation arrangement	JICA, as Accredited Entity (AE) and Executing Entity (EE), bears principal responsibility for decision making. JICA and the Project discussed with DGFCIP and NDA and agreed on the structure and function of Central Steering Committee: The Minister of MAF and Chief Representative of JICA Timor-Leste as co-chair, the Secretary of State for Environment as vice chair with the members of officials from DGFCIP and its directorates and departments, JICA Expert Team (TET), and MAOs. The Project proposed the formation of implementation and monitoring teams at central, municipal and field levels as well as their roles.	FP: Para. 105-121 Annex 9: Sec. 9.2
[1-4-10] Consensus building among stakeholders on the draft implementation plan	JICA and the Project regularly communicated with DGFCIP and NDA to update the progress of FP and discuss the responses to GCF comments, implementation structure, allocation of government budget, etc. In addition, the Project assisted the government's preparations of necessary documents such as commitment letter for government budget allocation. Discussions were also made with DPs and NGOs (including FAO, F-COTI and OneSeed Program) over future cooperation on CF and carbon offset schemes.	FP: Para. 82, 83, 104, 105-121 Annex 2: Sec 8.3.3 Annex 5: Co-financing letter





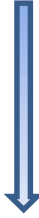



[1-6] Assist MAF in preparing for the implementation of the CB-NRM roadmap

[1-6-1] To provide technical inputs to the FP for GCF and the discussion with GCF

Through Activity [1-4], JICA experts assisted JICA for the preparation of FP, including drafting the documents, responding to comments, and holding online meetings with GCF Secretariate and other stakeholders. In the GCF application, the FP is revised and refined along with the assessment process before the finalization for GCF General Board. The assessment process consists of i) the 3-time reviews by GCF Climate Investment Committee (CIC) (JICA get involved from the second review, namely CIC2); ii) the examination by external experts called the independent Technical Advisory Panel (iTAP);

iii) technical session before General Board, and then iv) final appraisal by General Board for approval. JICA submitted the 1st version of FP to GCF in June 2020, which underwent a series of revision since then. The table below shows how successfully JICA made revisions according to the respective stage of the assessment process. In the table, one can see when/ how many JICA submitted the revised FPs. In reality, however, the revisions were made more frequently than indicated in the table, in some cases on the main text of FP only, in other cases together with Annexes concerned. The JICA experts also facilitated discussion between JICA and GCF, so as to build consensus and mutual understanding on the revised parts of FP.

Table 2-1-20: GCF Assessment Process

Time	Process
June 2020	JICA submitted the 1 st version of FP to GCF.
	<p>The following revisions were made based on the comments provided by GCF.</p> <ul style="list-style-type: none"> • Categorizing the proposed project as the mitigation intervention, despite the fact that it could contribute to both adaptation and mitigation aspects, due to lack of data on climate change projection at watershed or municipal level in Timor-Leste (Note: the formulation of an adaptation intervention requires detailed data on climate change projection at local levels to demonstrate future scenarios.) • Inclusion of carbon offset activities in the project framework, on the account of sustainability of creating incentives for communities to manage forest in collaboration with the private sectors. • Refinement of Theory of Change with revisits to the driver analysis for deforestation and forest degradation and to approach for effective intervention.
October 2020	JICA submitted the revised FP and successfully passed the review by CIC2.
	<ul style="list-style-type: none"> • Revision of the project logical framework based on comments by GCF evaluation officials • Refinement of the project budget • Refinement of Annexes on Gender Assessment, Economic Analysis, GHG Accounting, etc.
December 2020	JICA submitted the revised FP and successfully passed the review by CIC3.
January 2021	JICA underwent the iTAP assessment and successfully passed on condition of revising FP on the points indicated in the column below.
	<ul style="list-style-type: none"> • Unifying the use of such terms as Outcome/ Output/ Component/ Activity in the project framework and throughout FP and Annexes with proper numbering • Addition of the definition of forest in the FP • Confirmation of condition and limitation of carbon-credit trade • Revision on the co-financing budgets to be secured by JICA and MAF, following the budgeting rules of GCF • Explaining the details of contingency items in the GCF budget • Providing detailed modality of annual monitoring of GHG emission
March 11, 2021	Technical Session before GCF General Board
	<p>JICA responded the following comments made by active observers in the session by a written form, which JICA experts drafted from technical points of view.</p> <ul style="list-style-type: none"> • Justification for piloting carbon offset activities in the proposed project with explanation of working modality • Clarification on the assessment of reduction of GHG emission, in that it excluded the impacts to be generated by the pilot carbon offset activities • Showing the understanding on the importance of i) awareness raising on GBV among stakeholders and ii) qualitative reporting on the resolution of GBV cases
March 18, 2021	<p>Confirmation by GCF General Board </p> <p>Discussion on the carbon offset activities and gender issues</p> <div style="text-align: right;"></div>

[1-6-2] To support contracting process with GCF

Having obtained the approval on the proposed project, JICA embarked on the process of making a contract with GCF, which is referred to as Funded Activity Agreement (FAA). The Project assisted JICA in this process as follows:

- Collecting information, through NDA, on the type and contents of the agreement made between AE and the Government of Timor-Leste for the on-going GCF project.
- Concretizing the annual disbursement plan and reporting plan of the JICA GCF Project.
- Providing information and lessons learnt to JICA in formulating its co-financing project e.g. on modality of activities and implementation schedule, while facilitating discussion between JICA and DGFCIP /NDA on the co-financing project
- Identifying, through collaboration with DGFCIP and NDFWMAM, MAF's co-financing budget and activities based on their draft budget for FY 2022 as well as possible in-kind contribution e.g. office space and seedlings with confirmation on receipt-keeping system and auditing

[1-6-3] To select target villages through consultation with MAF stakeholders (incl. Municipalities)

[1-6-4] To do grouping and prioritization of the target villages for effective and efficient implementation

In Timor-Leste, state of the emergency was in place from March 2020 to November 2021, during which lockdown and restriction on inter-municipal movements were imposed by the government. JICA Timor-Leste Office followed this direction and often applied stricter codes of conduct, limiting the number of the JICA officials coming to Timor-Leste and their movement in the country. In October and November 2021, when the influence of COVID-19 became moderate, the Project (NDFWMAM officials and national project staff) visited Agricultural Service Department¹³ in Municipal Administration/ Authority Offices (MAOs) to share the outline of the JICA GCF Project, discuss target villages and a possible implementation schedule, and request the department for cooperation on the establishment of Municipality Project Monitoring Team (MPMT). The JICA experts participated in this discussion on-line and confirmed their consensus and willingness to cooperate. In December 2021, when the JICA experts were allowed to come to Timor-Leste, the Project (JICA experts and NDFWAMA officials) visited MAO to have a similar discussion with Municipality Administrators and then obtained their consensus and readiness for cooperation.

The table below presents the list of the target villages and their groups of the implementation package. Yet they are still subject to change, since there will be a need for the JICA GCF Project, once officially launched, to confirm the detailed situation of each village and their willingness to implement the CB-NRM mechanism.

¹³ MAF Municipality Office was institutionally transformed to Agricultural Service Department under MAO in 2021, following the decentralization policy.

Table 2-1-21: List of target villages of the JICA GCF Project

Municipality	P.A	Village	Possible Activity*	Batch	Municipality	P.A	Village	Possible Activity	Batch
Comoro WS Package (12 villages)					Tarafa WS Package (10 villages)				
Ermera	Railaco	Samalete	PLUP/MP	1	Covalima	Forohem	Dato Rua	PLUP/MP	1
Ermera	Railaco	Deleco	PLUP/MP	2	Covalima	Forohem	Lactos	PLUP/MP	2
Ermera	Railaco	Railaco Leten	PLUP/MP	2	Covalima	Forohem	Fohoren	PLUP/MP	2
Ermera	Railaco	Railaco Craic	PLUP/MP	2	Covalima	Fatumean	Nanu	PLUP/MP	2
Liquica	Bazartete	Fahilebo	PLUP	2	Covalima	Forohem	Dato Tolu	PLUP/MP	3
Ermera	Railaco	Lihu	PLUP	3	Covalima	Fatumean	Belulik Leten	PLUP/MP	3
Ermera	Railaco	Taraco	PLUP/MP	3	Covalima	Maukatar	Holpilat	PLUP/MP	3
Liquica	Bazartete	Leorema	PLUP	3	Covalima	Fatululic	Taroman	PLUP/MP	4
Liquica	Bazartete	Ulmera	PLUP/MP	3	Covalima	Fatumean	Fatumea	PLUP/MP	4
Ermera	Railaco	Fatuquero	PLUP/MP	4	Covalima	Maukatar	Ogues	PLUP/MP	4
Ermera	Railaco	Tocoluli	PLUP/MP	4					
Liquica	Bazartete	Tibar	PLUP/MP	4					
Laclo WS Package -1 (16 villages)					Laclo WS Package-2 (15 villages)				
Aileu	Remexio	Tulataqueo	PLUP/MP	1	Aileu	Aileu vila	Saboria	PLUP/MP	1
Aileu	Remexio	Acumau	PLUP/MP	1	Aileu	Aileu vila	Aisirimou	PLUP/MP	1
Aileu	Remexio	Suco-Liurai	PLUP/MP	2	Aileu	Aileu vila	Seloi Malere	PLUP/MP	1
Aileu	Liquidoe	Namoleso	PLUP/MP	2	Aileu	Aileu vila	Fahira	PLUP/MP	2
Aileu	Liquidoe	Fatrilau	MP	2	Aileu	Aileu vila	Seloi Craic	PLUP/MP	2
Aileu	Liquidoe	Acubilitoho	PLUP/MP	2	Aileu	Aileu vila	Suco Liurai	PLUP/MP	2
Aileu	Liquidoe	Bereleu	PLUP/MP	2	Aileu	Aileu vila	Bandudato	PLUP/MP	2
Aileu	Liquidoe	Betulau	PLUP/MP	3	Aileu	Aileu vila	Lahae	PLUP/MP	2
Manatuto	Laclo	Hohorai	PLUP/MP	3	Aileu	Aileu vila	Lausi	PLUP/MP	3
Manatuto	Laclo	Uma Naruc	PLUP/MP	3	Aileu	Aileu vila	Fatubosa	PLUP/MP	3
Manatuto	Laclo	Lacumesac	PLUP/MP	3	Aileu	Aileu vila	Foholau	PLUP/MP	3
Manatuto	Laclubar	Sanana'In	PLUP/MP	4	Manufahi	Turiscas	Fatucalo	PLUP/MP	4
Manatuto	Laclubar	Batara	PLUP	4	Manufahi	Turiscas	Lesuata	PLUP/MP	4
Manatuto	Laclubar	Fatumaquerec	PLUP/MP	4	Manufahi	Turiscas	Caimauc	PLUP/MP	4
Manatuto	Laclubar	Funar	PLUP/MP	4	Manufahi	Turiscas	Liurai	PLUP/MP	4
Manatuto	Laclubar	Orlalan	PLUP	4					
Caraulun WS Package-1 (14 villages)					Caraulun WS Package-2 (7 villages)				
Ainaro	Maubisse	Edi	PLUP/MP	1	Manufahi	Same	Letefoho	PLUP/MP	1
Ainaro	Maubisse	Manelobas	PLUP/MP	1	Manufahi	Same	Holarua	PLUP/MP	2
Ainaro	Maubisse	Fatu-Besi	PLUP/MP	2	Manufahi	Same	Rotuto	PLUP/MP	2
Ainaro	Maubisse	Maulau	PLUP/MP	2	Manufahi	Same	Tutuluro	PLUP/MP	3
Ainaro	Maubisse	Manetu	PLUP/MP	2	Manufahi	Same	Grotu	PLUP/MP	3
Ainaro	Maubisse	Maubisse	PLUP/MP	2	Manufahi	Same	Daisua	PLUP/MP	4
Ainaro	Maubisse	Suco Liurai	PLUP/MP	3	Manufahi	Same	Babulu	PLUP/MP	4
Ainaro	Maubisse	Horai-Quic	PLUP/MP	3	[Remark] 1 st Batch will start in 2022. 2 nd Batch will start in 2023. 3 rd Batch will start in 2024. 4 th Batch will start in 2025.				
Ainaro	Maubisse	Aitutu	PLUP/MP	3					
Manufahi	Turiscas	Manumera	PLUP/MP	3					
Manufahi	Turiscas	Beremana	PLUP/MP	4					
Manufahi	Turiscas	Aitemua	PLUP/MP	4					
Manufahi	Turiscas	Mindero	PLUP/MP	4					
Manufahi	Turiscas	Orana	PLUP/MP	4					

Note: In principle, the JICA GCF Project supports both PLUP and MP in target villages. However, if other DPs have already supported the activities, it will facilitate either PLUP or MP in accordance with the situation.

[1-6-5] To prepare technical materials for implementation e.g. for procurement and field training

The JICA experts prepared the following materials in collaboration with JICA Timor-Leste Office and DGFCIP.

Table 2-1-22: List of technical materials prepared for the JICA GCF Project

Technical Material	Remark
Updated Procedure Manual of the Integrated Method of CCVA and PLUP	See Attachment 8.
Training & presentation materials on the CB-NRM mechanism	See Attachment 8.
Draft TORs and bidding documents for PLUP and MP implementation	Submitted to JICA
Draft TORs for the establishment and operation of the WMCs	Submitted to JICA
Disbursement Plan with contract packages based on GCF FP Annex 3 Budget Plan	Submitted to JICA
Outline of the JICA GCF project	Submitted to JICA
Guideline on implementation & monitoring for MAF/ Municipality officials	Submitted to JICA
Draft guideline on Grievance Redress Mechanisms (GRMs)	Submitted to JICA

[1-6-6] To conduct socialization for the target villages to understand the CBNRM and the GCF project

The Project held the final CB-NRM stakeholder workshop in February 2022 to introduce the outline of CB-NRM mechanism and the JICA GCF Project mainly to the stakeholders of the municipalities to be targeted by the JICA GCF Project. In the workshop, other DPs' initiatives on the CB-NRM mechanism and the final drafts of the roadmap and ministerial order were also presented to the participants, so as to promote basic understanding and impress joint approach to the expansion of the CB-NRM mechanism through cooperation between the government and multiple DPs. In addition, the Project presented draft implementation and monitoring guidelines for the JICA GCF Project, clarifying roles and responsibilities of the municipalities, and obtained their understanding and cooperation. The details of the workshop are summarized in the table below.

Table 2-1-23: CB-NRM stakeholder workshop for the introduction of JICA GCF Project

Objective	To discuss the effectiveness of CB-NRM mechanism promoted by JICA and other DPs To discuss the expansion of CB-NRM mechanism including JICA GCF Project based on the roadmap with stakeholders.
Participants	Government (MAF DGFCIP, NDFWMAM, NDA) DP/NGO (ADB, CI, EU/GIZ, FAO, OneSeed Program, Halarae and RAEBIA) and UNTL Municipal officials* (Aileu, Ainaro, Covalima, Ermera, Liquica, Manatuto, Manufahi Municipalities)
Program	[1 st Session] Presentations: "CB-NRM mechanism and its effectiveness" by the Project; "Application of PLUP and lessons learned" by CI and GIZ; and "Relatedness between CF and CB-NRM" by FAO. Discussions based on the presentations. [2 nd Session] Presentations: "Outlines of CB-NRM roadmap and draft ministerial order" by the roadmap taskforce; "Outline of JICA GCF Project" and "Draft guidelines for the operations and monitoring of JICA GCF Project" by the Project. Discussions based on the presentations.
Major points of	<u>Lessons learnt on the implementation of the CB-NRM mechanism by the Project and other DPs</u> • The CB-NRM mechanism consists of several components (e.g. Future Land Use Plan, Suco

discussions	<p>Regulations, MP). Interventions with the respective component should not be stand-alone but be a systematic combination to create expected impacts. It could be more useful when combined with other practices such as water supply and conservations.</p> <ul style="list-style-type: none"> • There must be flexibility in implementation of PLUP, depending on the needs and understanding of communities e.g., on decision of having traditional ceremony for inauguration of suco regulations (i.e., Tara Bandu ceremony) or not. <p><u>For the upcoming JICA GCF Project</u></p> <ul style="list-style-type: none"> • The JICA GCF Project has been approved by GCF on condition that it should be co-financed by JICA and MAF. The plan for the project has been agreed in detail and needs to be followed for materialization. Hence the fulfilment of commitment and collaboration with each other are prerequisite to the implementation, which should be well acknowledged by all stockholders. • There will be need for discussing how to cope with lack of transportation and facilities at field level with due consideration to the enforcement of new regulations on the use of government vehicle and motorbikes.
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Note:* Participants from a municipality includes Administrator, the director of Agricultural Service, and Territorial Representative for Forestry and Industrial Plants.



[1-6-7] To identify baseline data which contribute to the monitoring and evaluation of the GCF project implementation

The Project conducted the baselines survey, which consists of 1) Forest resource identification survey and 2) Socio-economic baseline survey at sample villages. The summary of each survey is shown in the table below. The Project also assisted in JICA Timor-Leste Office in procuring the equipment for baseline survey (drone, PC, etc.)

Table 2-1-24: Outline of Baseline Survey

Survey	Forest resource identification	Socio-economic baseline survey at sample villages
Objective	<ul style="list-style-type: none"> • To identify baseline data on forest resources in the target watersheds, so as to measure the impacts of the project on the reduction of GHG emission in the future. • To use the forest resource data to be identified for PULP implementation 	<ul style="list-style-type: none"> • To identify the accessibility to resources, land use and production level for the future M&E of the project • To identify division of labor and development needs by gender for PLUP and MP implementation
Methods	<ul style="list-style-type: none"> • Developing training data for AI based on the past analyses on forest / non-forest area using satellite images • Adjusting the training data by assessing the automatic analysis made by AI • Conducting the ground truth to confirm the results of the A.I analysis 	<ul style="list-style-type: none"> • Selecting 3 sample villages per target watershed (12 villages in total). • Selecting 50 sample HHs and their representatives per village (female 44% and male 56%) • HH Survey on land use, resource accessibility, production and income and Gender Survey, both of which are of the questionnaire for interview

Survey	Forest resource identification	Socio-economic baseline survey at sample villages
	<ul style="list-style-type: none"> Adjust the results based on the ground truth and finalize the size and location of forest 	<ul style="list-style-type: none"> Establishing the database per village and make analysis.
Major outputs	<ul style="list-style-type: none"> Forest resource maps as of 2019/20 covering the target watersheds Future scenario updated on the reduction of GHG emission to be brought by the JICA GCF Project. 	A report was compiled on community's perception on water availability (quality and quantity), proportion of those engaged in shifting cultivation, yields of major crops, land ownership of the firewood collection areas, the number of livestock animals, annual income and expenditure, division of labor and difference of needs between female and male, etc.

	
Ground Truth	Socio-economic survey (Making interview with social distance)

[1-6-8] To support the setup of MAF implementation arrangements (central and municipality monitoring teams)

The implementation of the JICA GCF Project requires the government setup to carry out effective monitoring from central level to field level. The deliberation at Sub-activity [1-4-9] articulated the needs for the establishments of a Central Project Monitoring Team (CPMT) and MPMT, which has a Field Assisting Team (FAT) on the ground. The JICA experts developed the concepts for each team based on the FP for GCF with the experience of the CB-NRM mechanism implementation, addressing its memberships, and roles and responsibilities. This concept was finalized through consultation with DGFCIP and Municipal Administrators and incorporated into the guidelines on implementation & monitoring for MAF/ Municipality officials.

The table below indicates the concept of each team. Upon the inception of the JICA GCF Project, the formal letter will be dispatched by DGFCIP and the respective Municipality Administrator for the official establishment of the teams.

Table 2-1-25: Concepts of CPMT and MPMT with FAT

Team	CPMT	MPMT	FAT
Membership	Head: NDFWMAM Coord: Chief of WS Dept. Finance: Chief of Finance and Planning Dept.	Head: Director of Agri. Service Office Coord: Territorial Representative of Forestry and Industrial Plants Finance: Planning officer of MAO	Head: Technical officer in Extension o. Members:

	Members: NDs under DGFCIP	Members: i) technical officer in agriculture and horticulture, ii) technical officer in coffee and industrial plants, iii) forest guards	Extension officers incl. Extension coordinators
To be supervised by	DGFCIP	MAO*	MAO*
Roles and responsibilities	<ul style="list-style-type: none"> i) Monitor and supervise the project activities, particularly those conducted by contractors/ NGOs hired in collaboration with MPMTs ii) Provide, together with JICA Expert Team, guidance and technical assistance to contractors/ NGOs and local communities iii) Investigate, together with JICA Expert Team, any communities' complaints reported by MPMTs and/or contractors/ NGOs and figure out solutions iv) Report the progress of activities conducted by contractors/ NGOs at village and P.A levels to DGFCIP 	<ul style="list-style-type: none"> i) Monitor and supervise the field activities, such as community workshops, technical trainings ii) Listen to any complaints from communities about the project activities and report it to CPMT for investigation iii) Support contractors/ NGOs for facilitation of discussions and provision of technical guidance iv) Provide technical support to communities in application of techniques learned from training v) Report the progress of the project activities conducted by contractors/ NGOs at village and P.A levels to Municipal Administrator. 	<ul style="list-style-type: none"> i) Support contractors/ NGOs hired in mobilizing communities and facilitating discussions, and providing technical assistance ii) Assist communities in the application of techniques to their farms iii) Provide training to communities not directly supported by the Project iv) Assist MPMT in monitoring the activities and communicating with the contractors/ NGOs and communities including receiving complaints

Note: As of February 2022, Dili and Ermera are of Municipality Authority Office while others are of Municipality Administrative Office as far as municipalities in the target watershed areas are concerned.

Source: Guideline on implementation & monitoring for MAF/ Municipality officials (2022)

[1-6-9] To support the preparation of inception report for the GCF project

Based on the information obtained through Sub-activity [1-6-6] and [1-6-7], the JICA experts prepared the draft inception report for the JICA GCF Project and submitted it to JICA for finalization.

2.1.6. Activities for Output 2

The following activities are conducted for Output 2.

- [2-1] Facilitate the set-up of a secretariat in MAF/NDFWM
- [2-2] Identify the stakeholders and key operational actors working in the fields relevant to CB-NRM
- [2-3] Assist the CB-NRM platform to sensitize the members of the platform on the CB-NRM mechanism and regularly exchange information and to accumulate lessons learned and good practices
- [2-4] Formulate a new set of policy recommendations on further expansion of the CB-NRM mechanism

The details of respective activities are described below.

- [2-1] Facilitate the set-up of a secretariat in MAF/NDFWM
- [2-1-1] To assess the existing networks and fora that may be tapped to set up the CB-NRM platform.

[2-1-2] To establish a task force to develop a platform in coordination with NDFWM and other relevant stakeholders.

[2-1-3] To discuss the concepts, objectives, functions and activity of the CB-NRM platform.

[2-1-4] To finalize the concepts and plans with identification of membership.

The JICA experts collected information of the existing networks and fora, namely, i) DP coordination meetings in the forestry sector organized by DGFCIP¹⁴, ii) MAF-DP Coordination Meetings (MAF-DPM), and iii) HASATIL, a coordinating body of local NGOs in the agriculture sector, with the aim of evaluating their functions and potentials. The table below summarizes the features of the respective networks or fora (i.e. advantage and disadvantage/challenges).

Table 2-1-26: Evaluation of the existing networks and fora

Network/Forum	Advantage	Disadvantage/Challenge
i) DP coordination meeting led by DGFCIP	The DG is highly motivated for DP coordination. Specific discussion and coordination of forest and watershed management are possible through the meeting.	Since the meeting was newly organized, DP participation was still limited. Timing and frequency were not regular, and the meeting / coordination needed to be more active.
ii) Overall MAF-DP Meeting	It is possible to know the overall trend of agriculture, forestry and fisheries sector (e.g., policies and sector budget). Participation of various DPs	The meeting is primarily led by DPs, including the sub-sector working groups, leaving concern on the ownership at the government side.
iii) HASATIL	HASATIL has a nationwide network of local NGOs in the agriculture, forestry and fisheries sector.	The organization lacks stable budget and thus personnel for sustainable operation.

Based on the analysis above, the Project decided to support the strengthening of i) DP coordination led by DGFCIP and iii) HASATIL. Behind this decision were considerations on importance of respecting CP's initiative for coordination as well as on need of specific coordination with DPs and NGOs working for forestry and watershed management in order to promote the expansion of the CB-NRM mechanism.

To strengthen coordination among DPs, the JICA experts prepared the draft concept paper and discussed with DGFCIP. As a result of discussion, it was agreed that DGFCIP would take a liaison role until the DP coordination meeting was revitalized and regularly organized, while the experts were requested to support the secretary works for coordination. It should be recognized that this DP coordination meeting was for overall coordination on forest and watershed management rather than specifically on the CB-NRM mechanism. There was deliberation that the overall coordination would be more attractive for many DPs to share knowledge and experience and more useful for MAF to coordinate a number of projects both on-going and planned for future.

With respect to the network with local NGOs, the JICA experts had facilitated HASATIL in collecting the information of the NGOs and initiating a NGO coordination meeting. In the course of discussion/facilitation, however, it was found that there were some challenges of understaffing under HASATIL and lack of cooperation from its member NGOs. Having identified these bottlenecks, the JICA experts discussed with DGFCIP and agreed to set up a NGO meeting directly organized by MAF. Provided this

¹⁴ Technically, he was the ND of NDFWMAM at the time of project inception (2016). Then, he was promoted to the DG of DGFCIP and led the DP coordination meeting. For convenience, therefore, this report describes the DP coordination led/organized by the DGFCIP.

direction, the JICA experts prepared a concept paper on NGO coordination and supported DG's communication with relevant NGOs. As in the case of the DP coordination, the NGO meeting discussed not only the expansion of CB-NRM mechanism but also the issues of overall forest and watershed management sector. The 1st NGO meeting was held in February 2018, where the JICA experts explained that the Project would support NGO coordination with MAF for the purpose of promoting the CB-NRM mechanism. The participants then agreed to take CB-NRM as a main theme of discussion in the meeting.

[2-2] Identify the stakeholders and key operational actors working in the fields relevant to CB-NRM

[2-2-1] To gather information on the stakeholders working in the fields relevant to CB-NRM

[2-2-2] To contact the potential stakeholders to sensitize the idea of the CB-NRM platform

As for DP coordination, DGFCIP made direct contact with potential DPs, calling for their participation in the meeting. Regarding NGO coordination, it was the CP officers of NDFWMAM, who obtained the database of NGOs in the agricultural sector from the NGO forum. It was found that approximately 50 NGOs are registered with the forum, and decided that out of them, NGOs having a basis in Dili should be invited to a coordination meeting. The following table shows the participants of DP/ NGO coordination meetings.

Table 2-1-27: Participants in DP/ NGO coordination meetings

Meeting	Number	Major Participants
DP coordination meeting (incl. international NGOs)	15	Conservation International, EU, FAO, GCCA-Camoes IP, GCCA-GIZ, Hivos, JICA, Mercy Corps, UNDP, USAID-Avansa, WB-SAPIP, World Vision, etc.
NGO coordination meeting (local NGOs)	13	SANTALUM, Timor Verde, ETADEP, TIDEN, KSI, RAEBIA, Halarae Foundation, SOHA FITUN, AMAR, Naroman Timor Foun, Eucalyptos Timor, FETO HADOMI FAMILIA Foundation, ALFA STAR

[2-3] Assist the CB-NRM platform to sensitize the members of the platform on the CB-NRM mechanism and regularly exchange information and to accumulate lessons learned and good practices

[2-3-1] To assist the secretariat to organize regular meetings for sensitization and information exchange

[2-3-2] To assist the secretariat to keep records of regular meetings / information exchange activities

[2-3-3] To assist the secretariat to compile the lessons learned and good practices reported in the meetings / information exchange activities

DP Coordination Meeting

A total of 8 DP coordination meetings were organized (See Table below for outline of each meeting). As mentioned above, initially, the JICA experts played a secretary role and worked directly under the DGFCIP for meeting arrangement. Since the 3rd coordination meeting, however, there was a gradual

transfer of the secretarial functions from the JICA experts to the chief of DG cabinet and DG secretaries, as they were appointed by DGFCIP as the secretariat for DP coordination. The JICA experts assisted the secretariat in the preparation of agenda for a meeting, contact to the DPs, and drafting the minutes of meeting. Under the coordination of DGFCIP, the cost of meeting was covered by different DPs in rotation and often co-funded with MAF, so as to avoid putting financial burden on any particular organization. Since 2020, the increased effects of the COVID-19 pandemic prevented DGFCIP/ the Project from organizing the meeting. In December 2021, the Project held DP consultation meeting on the roadmap and other relevant documents, inviting various DPs and NGOs based on the experience of leading the DP/NGO coordinating meeting.

Table 2-1-28: Outlines of DP coordination meetings

Period	Meeting	Agenda / Major discussion
February 2017	1 st meeting	Purpose of DP coordination meeting Revision of Forest Law and Forest Sector Policy Activities of individual DPs
June 2017	2 nd meeting	Development of DP database and output (mapping of DP project areas). Possibility of integration of PLUP and CCVA methodologies.
September 2017	3 rd meeting	Adaptation of common approach to watershed management among DPs Ideas of pilot activities for sustainable forest management including firewood collection for commercial purpose.
February 2018	4 th meeting	Progress on the integration of PLUP and CCVA Progress on formulation of the common guidelines of watershed management
July 2018	5 th meeting	Presentation and discussion on the draft common guidelines for watershed management Updates of each DP project
November 2018	6 th meeting	Finalization of the common guidelines for watershed management Presentation of the first draft CB-NRM roadmap
April 2019	7 th meeting	Priority activities and budgets planned by DGFCIP and its NDs for 2019 Official dispatches made by DGFCIP
September 2019	8 th meeting	New directions and ND / Units established by DGFCIP (e.g. NDCF and M&E Unit) Information sharing on targets for Land Degradation Neutrality for UNCCD Discussion on incentive mechanism for tree planting
December 2021	DP/ NGO Consultation meeting on the drafts of the roadmap, the policy recommendations, and the ministerial order for CB-NRM expansion (including information sharing on the JICA GCF project and PLUP good practice study)	

Through the DP coordination meetings, various kinds of data were collected from the members, e.g., project profiles, achievement of tree planting and nursery development, research and study reports, and information of partner NGOs. And based on them, the JICA experts assisted DGFCIP in establishing the DP database. They also developed the map of DP-assistance area (See the figure below) as the output of data collection. It was shared among the DP members at the 2nd coordination meeting held in June 2017. Based on this map, it was found that Tafara watershed, despite being one of the priority watersheds in the country, had received no interventions from any DPs and therefore was selected as one of the target watersheds by the JICA GCF project.

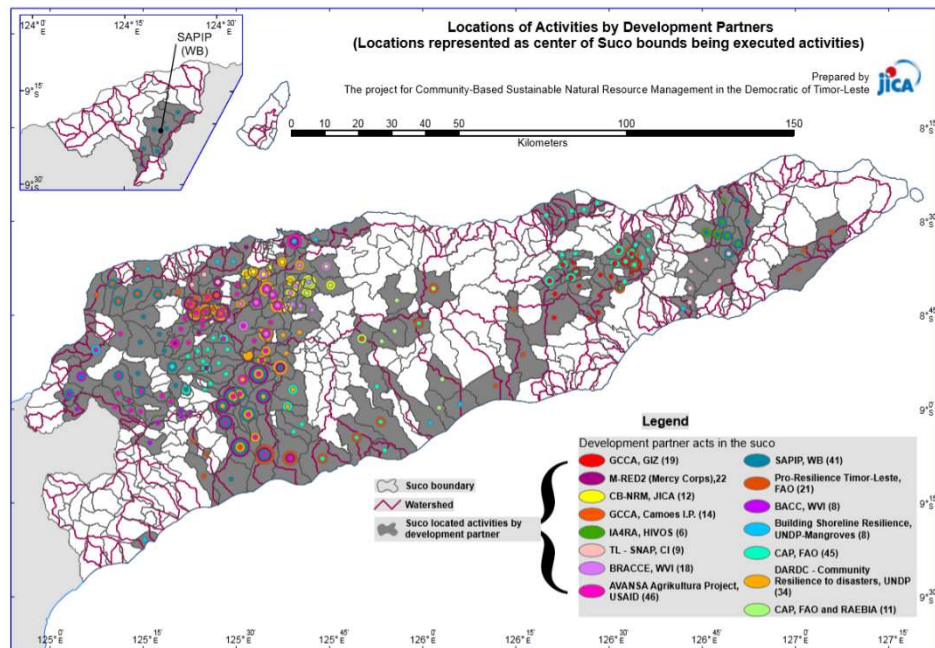


Figure 2-1-2: Map of DP supports in forest and watershed management

In addition to the DP database, several efforts have been made for harmonization of the DP's activities. For example, while PLUP was employed by some FAO projects and the Project for the assessment and planning of CB-NRM, GCCA-GIZ and UNDP projects applied CCVA for the formulation of community action plans. Provided this discrepancy in the approach to community, the Project and GCCA-GIZ embarked on the methodological integration of PLUP and CCVA. The issue was shared and discussed among the DPs at the 2nd DP coordination meeting, and it was agreed that both projects would conduct the pilot application of the integrated method in their respective project sites and share the results. Following this agreement, the JICA experts prepared the pilot study report, demonstrating the results and lessons of the trial application, and presented it to other DPs at the 4th DP meeting (See Attachment 7). This integrated method has been then employed by the EU/GIZ-PSAF and will be done so by the upcoming JICA GCF project.

Furthermore, DGFCIP requested the DPs to discuss how to unify approaches to watershed management among different projects, pointing out the necessity of developing "common" guidelines for watershed management in Timor-Leste. Given this direction, a small working group was formed for leading the formulation process. The JICA experts worked towards developing the common guideline in collaboration with other members, namely, NDFWMAM, GIZ, UNDP and Hivos, and submitted it to DGFCIP, which issued the official dispatch based on this guideline.

Finally, as PLUP is now being adopted by several DPs, the JICA experts and CPs carried out a study to draw lessons and good practices from PLUP implementation by different DPs (e.g., FAO-CAP and USAID-Avansa). The Project prepared the report and shared it with other DPs at the DP/ NGO consultation meeting on the CB-NRM roadmap (See Attachment 7).

	
<p>DP coordination meeting</p>	<p>Small working group for the common guidelines for watershed management</p>

NGO Coordination Meeting

As for the NGO coordination, the 1st meeting was held in January 2018 to introduce the CB-NRM mechanism to local NGOs. After this, however, it was found that most of them were interested in business opportunities with DP/ international NGOs, which prevented the Project from holding meetings on a regular basis, since such business information was provided on ad-hoc basis and only to shortlisted NGOs. With this in mind, the Project altered its focus from having a plenary regular meeting to facilitating match-making between the potential local NGOs and an international NGO to make a consortiums for a DP project engaged in the CB-NRM activities. In April 2019, the Project organized the 2nd NGO coordination meeting, inviting only the local NGOs that had taken part in the PLUP/ MP OJT, with the aim of sharing CB-NRM business opportunities and introducing the integrated methods of PLUP and CCVA.

Individual collaboration with various DPs and NGOs



In addition to DP and NGO coordination, the Project was engaged in individual collaboration with different DPs and NGOs after 2019. Efforts for collaboration were emphasized especially after 2020, when the COVID-19 pandemic hindered having the regular DP coordination meeting and enforced the Project to have online discussion with stakeholders, mostly individually. The table below shows the collaborations made by the Project with various DPs and NGOs. Among them, the most notable are with FAO, which promoted CF in connection with CB-NRM, and with GIZ, which launched the PLUP /CCVA in their project, PSAF. The Project also provided i) technical inputs to CI and World Vision, both of which had plan to implement PLUP in their projects and ii) written articles on the Sustainable Upland Farming MP to the good practice compendiums organized by FAO and TOMAK, respectively.

Table 2-1-29: List of Individual Collaboration made by the Project with other DPs/ NGOs

Time	To/with whom	Contents of Collaboration
Jul. Aug. 2019	GIZ	Sharing TOR/ manuals on PLUP/CCVA and standard range of cost for it
Aug. 2019	CI and OHM*	Study tour to introduce PLUP
Sept. 2019	GIZ	Field visit to the CB-NRM villages with PSAF officials
Feb. 2020	Plan International, etc	Training local NGOs on proposal making
Feb. 2020	World Vision	Introduction of PLUP at the FMNR seminar
Aug. 2020	FAO	Providing articles on the Sustainable Upland Farming MP to Compendium of Adapted Technologies and Practices for Climate Resilient Agriculture

Time	To/with whom	Contents of Collaboration
Sept. 2020	FAO	Training FAO -CF trainers on the CB-NRM mechanism with CPs
Oct. 2020	FAO	Providing data on forest fire incidents to FAO study team
Feb. 2021	Hivos	Discussion on possible collaboration in the upcoming JICA GCF project
Feb. 2021	World Vision	Introduction of PLUP to staff of Climate & Resilience for All project
Jun. 2021	GCF Monitoring Expert of NDCC**	Understanding of the M&E framework for all the GCF projects in the country Providing the JICA GCF Project data to the Monitoring expert
Oct. 2021	EIB**	Discussion on possible collaboration for EIB investment
Dec. 2021	TOMAK**	Providing articles on good practices of Sustainable Upland Farming MP to Climate Smart Agriculture Review
Throughout 2021	FAO	Discussion on linkage between CB-RNM and CF Providing comments on the draft National CF Strategy Introducing techniques of land use mapping for the JICA GCF Project Contribution to the development of the CF promotion video with JICA Timor-Leste Office

Note: * local NGO **NDCC: National Directorate of Climate Change, EIB: European Investment Bank, TOMAK: To'os ba Moris Di'ak (Farming for Prosperity)

	
Match-making between International NGO (Hivos) and local NGO (Halarae)	Study tour to the CB-NRM implementing village for CI and OHM officials

- [2-4] Formulate a new set of policy recommendations on further expansion of the CB-NRM mechanism
- [2-4-1] To facilitate the NDFWMAM to review and evaluate the results of policy recommendations for CB-NRM expansion to identify problems and necessary actions for further expansion of the CB-NRM
- [2-4-2] To assist the NDFWM in discussion and drafting a new set of policy recommendations for the period after 2022
- [2-4-3] To consult with the members of the members of CB-NRM platform on the draft policy recommendations
- [2-4-4] To finalize and submit the new set of policy recommendations to the Minister for approval

The policy recommendations that had been developed by the Project Phase 1 were reviewed and evaluated by the roadmap taskforce, which drafted a new set of the recommendations for 2022 onwards. In the 9th taskforce meeting, the review was undertaken. And since then, a series of refinements were made by the taskforce to reflect comments from various stakeholders and finalization was put into the

process. One of the policy recommendations is to issue the ministerial order to mainstream the CB-NRM into the government priorities. Considering its importance, the taskforce developed the draft ministerial order as well. Through Sub-activities [1-5-1] and [1-5-2] the Project organized series of consultation meetings not only for MAF and municipality stakeholders but also for DPs/ NGOs, using the stakeholder network accumulated by the DP coordination meeting (i.e., the platform). In these meetings, due consultation was made on the drafts of the revised policy recommendations and the ministerial order, in addition to the roadmap. Comments raised by the stakeholders were incorporated for finalization. On February 15, 2022, NDFWMAM, as a leader the roadmap taskforce, submitted the new set of policy recommendations to DGFCIP, which endorsed it and submitted the draft ministerial order to ND of legal support of MAF on the next day (February 16) to initiate the finalization and institutionalization of the draft order (See Attachment 6 for the policy recommendations). DGFCIP will explain the draft ministerial order to H.E Minister for his approval and its official issuance.

The tables below summarized major contents of the policy recommendations and the ministerial order for the expansion of the CB-NRM mechanism over the county.

Table 2-1-30: Summary of Policy Recommendations

Specific Objectives	<ul style="list-style-type: none"> • CB-NRM will be officially adopted as one of the key government programs for sustainable forest management in Timor-Leste. • The CB-NRM mechanism will be introduced and rolled out in the 14 priority watersheds as planned in the CBNRM roadmap, in collaboration with relevant government organizations and MAF DPs. • Institutional and human resource capacities in the forestry and agriculture sectors will be developed and enhanced so that the programs and sub-programs proposed in the roadmap could be implemented, operated, and monitored in an efficient and effective manner. • Legislative and regulatory frameworks necessary for promotion and implementation of CB-NRM and CF as well as sustainable landscape or watershed management will be developed.
Recommendations (RCM) and key points	<p>RCM* 1: Mainstream CBNRM as a key government program for sustainable forest management by issuing a new ministerial order for expansion of CBNRM.</p> <ul style="list-style-type: none"> - To instruct MAF officials and guide Municipalities to implement the CB-NRM mechanism <p>RCM 2: Implement the CBNRM roadmap in collaboration with relevant government organizations and MAF DPs.</p> <ul style="list-style-type: none"> - Approval by DGFCIP of MAF on the implementation of the CB-NRM roadmap - Comprehensive resource mobilization of the government and DPs <p>RCM 3: Strengthen the capacities of GDFCIP, its national directorates, MAF municipal offices, and NGOs for Implementation of CBNRM and CF on a large scale.</p> <ul style="list-style-type: none"> - Capacity of MAF officials for planning and managing a large-scale program; Capacity of municipal officials and national NGOs for introduction of CB-NRM/ CF; and Capacity of MAF field officers and NGOs' field officers for provision of technical training and guidance e.g., on reforestation, agroforestry, climate resilient agriculture - Need to provide necessary administrative and financial support for the MAF/NGO officials to take part in training provided by the JICA GCF Project. <p>RCM 4: Develop legislative frameworks with the technical guidelines/ standard operating procedures for implementation of CF</p> <ul style="list-style-type: none"> - Need to develop legislative frameworks (such as new decree-laws or ministerial orders) and technical guidelines/standard operating procedures for implementation of CF based on the results of field trials of CF by FAO and the JICA GCF Project <p>RCM 5: Mobilize and effectively use resources in coordination and collaboration with relevant government organizations, MAF DPs, and external funding sources.</p>

	<ul style="list-style-type: none"> - Utilization of external funding supports from MAF DPs - Approach to international funding institutions such as GCF and GEF <p>RCM 6: <i>Widely share the results and potentials of the CBNRM mechanism with relevant stakeholders at all levels, i.e., legislators at central level, decision-makers at central, municipal, PA, and village levels, MAF DPs, and local communities in the priority watersheds.</i></p> <p>RCM 7: <i>Integrate the processes of the CBNRM mechanism, particularly PLUP and institutionalization of the suco regulations, into village development activities led by Municipal/ PA offices as well as ESTATAL.</i></p> <ul style="list-style-type: none"> - Integrate the CB-NRM mechanism into village planning, development, and management activities <p>RCM 8: <i>Institutionalize the Watershed-level or Sub-watershed-level Management Councils as Official Coordinating Bodies for Watershed Management</i></p> <ul style="list-style-type: none"> - Need to establish and manage the WMCs as coordinating bodies at PA or municipal level
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Note: RCM is referred to as Recommendation.

Table 2-1-31: Summary of Ministerial Order on the CB-NRM mechanism

Chapter 1	Title and Objectives of the Order, and Definition of Terms used in the Order
Chapter 2	Background and Rationale of the Order (Status of Forests in Timor-Leste, Deforestation and Forest Degradation, Greenhouse Gas Emission from the AFOLU Sector, etc.)
Chapter 3	Objectives and Scope of CB-NRM (incl. Key Approaches, Mechanism, and Expected Outputs)
Chapter 4	Process and Implementation System of Establishment of the CBNRM Mechanism at the Village Level
Chapter 5	Roles and Responsibility of Key Stakeholders Central, Municipal and of Village
Chapter 6	M&E of the Execution of the Order (at Central, Municipal and Village Levels)
Chapter 7	Supports for Implementation of the Order (Administrative and Technical Support, Financial Support, Coordination with DPs, etc.)

2.1.7. Activities for Output 3

For Output 3, the Project implemented the following activities.

- [3-1] Facilitate the implementation of the CB-NRM mechanism in Project Sites, following the manuals developed by the foregoing Project for Community-Based Sustainable Natural Resource Management
- [3-2] Facilitate the establishment and operation of watershed management councils in the Project Sites
- [3-3] Conduct the OJT for the key operational actors in and outside the Project Sites through the implementation of the CB-NRM mechanism in 3-1 and 3-2 above

The details of respective activities are described below.

- [3-1] Facilitate the implementation of the CB-NRM mechanism in Project Sites, following the manuals developed by the foregoing Project for Community-Based Sustainable Natural Resource Management (Phase I)

[3-1-1] To monitor the CB-NRM implementation in the six (6) sucos where the interventions were made by Phase I

At the time of inception, the Project conducted the follow-up monitoring of the 6 villages supported by Phase I. While several minor cases were reported, it was confirmed that the suco regulations had been well observed and that there had been no case reported on large-scale forest fires or illegal cutting even after Phase I. On the other hand, it was also recognized that, due to the replacement of village leadership, the understanding on suco regulations might have been undermined and hence there could have been a reduced frequency of monitoring on illegal acts. Therefore, the Project addressed the importance of suco regulations and their observation by the chefs de sucos in the regular meetings of WMC. For Suco Tohumeta, where the concern on reduced awareness was significantly observed, the Project arranged a meeting with new village leaders specifically for reminding them of the importance of following suco regulations in February 2019.

Follow-up for the 6 villages was undertaken with initiatives of NDFWMAM as well, as it allocated some budget to make the outputs of MP practice sustainable. The villages had utilized this budget for the maintenance and expansion of demo-plots, seedling procurement, rehabilitation of animal pens and updates of suco regulations with enhancement of monitoring activities (see the table below).

Table 2-1-32: Activities in target villages of Phase I with MAF follow-up budget

2017	<ul style="list-style-type: none"> • MAF disbursed USD 10,000 as the follow-up budget for 6 target villages of Phase I • The budget was used for maintenance of demo-plots, procurement of seedlings, rehabilitation of animal pens
2019	<ul style="list-style-type: none"> • MAF disbursed USD 10,000 as the follow-up budget for 6 target villages of Phase I • With the budget, NDFWMAM officials organized the follow-up activities on review and monitoring of suco regulations and extension of techniques introduced by the MP.
2021	<ul style="list-style-type: none"> • MAF disbursed USD 35,000 as the follow-up budget for the villages where the CB-NRM mechanism has been introduced. The budget has been periodically disbursed. • With the budget, NDFWMAM officials conducted monitoring for NRM with suco regulations in the villages. They also supported the women's group on MP for livelihood improvement, provision of seedlings and farming tools.

[3-1-2] To conduct PLUP in the target villages in the Project Sites

[3-1-3] To facilitate the local residents to formulate the suco regulations

Selection of target villages

With the aim of rolling out the CB-NRM mechanism over Noru sub-watershed in Laelo watershed and Bemos sub-watershed in Comoro watershed, the Project selected 7 target villages (4 from Noru and 3 from Bemos) based on such criteria as the size of a village (occupied area in the sub-watershed) and leadership of a chefe de suco (village chief). During project implementation, the Project selected additional 2 villages for PLUP implementation to offer OJT to the field staff of DPs planning to conduct PLUP in their projects. Accordingly, a total of 9 villages were selected. They were divided into 3 batches to make interventions of PLUP and MP with phase-in/out approach. As the 3rd batch was mainly intended for the OJT on PLUP, MP implementation was not included.

Table 2-1-33: Target villages of the Project for the CB-NRM promotion

Sub-watershed	1 st batch: (4 villages)	2 nd batch: (3 villages)	3 rd batch (2 villages)
Noru	Fahisoi (Liquidoe PA) * Fahisoi (Remexio PA)*	Manucasa (Liquidoe PA) Maumeta (Remexio PA)	Fatrilau (Liquidoe PA)
Bemos	Fatise** (Laulara PA) Bocolelo** (Laulara PA)	Cotolau (Laulara PA)	Dare (Vera Cruz PA, Dili Municipality)

Note: * As the two villages have the same name, they are named “Fahisoi L” and “Fahisoi R” in this report.

** Initially, they were one village; however, Suco Fatise was divided into two villages (Fatise and Bocolelo) in April 2017.

PLUP (including the formulation of suco regulations)

The Project selected 2 local NGOs and commissioned the facilitation of PLUP. The following table summarizes the process of PLUP. The process consists of i) preparation of future land use plan, ii) MP selection, and iii) formulation of suco regulations. As described under Sub-activity [2-3-3], a trial of integration of PLUP and CCVA was undertaken based on the agreement in the DP coordination meeting: the Project applied the basic elements of CCVA into sessions of present land use mapping and future land use planning in PLUP from the 2nd batch.

Table 2-1-34: Outline of PLUP process

Step	Contents
Introduction of PLUP	<ul style="list-style-type: none"> • Introduction of the CB-NRM mechanism • Explanation of objectives, methods, and process of PLUP
Formation of working group	<ul style="list-style-type: none"> • Formation of a working group for PLUP • Formulation of a workplan
Study tour	<ul style="list-style-type: none"> • Visit to a village that has already implemented PLUP • Discussion with suco leaders
Present Land Use Mapping	<ul style="list-style-type: none"> • Confirmation and mapping of suco/aldeia boundaries and main natural resources using aerial photograph (hazard mapping and vulnerability matrix assessment are added from the 2nd batch PLUP)
Formulation of Future Land Use Plan	<ul style="list-style-type: none"> • Evaluation of the importance of each resource • Analysis on the causes of forest/land/resource degradations (impact and solution analyses are added from the 2nd batch PLUP) • Confirmation of permitted activities in each area (incl. forest areas) • Discussion on the needs for changing land use/ borders of each area
Shortlisting of MPs (See Activity [3-1-4] for details)	<ul style="list-style-type: none"> • Listing of possible MPs for implementing future land use plan • Shortlisting of candidate MPs (by female and male groups)
Evaluation/prioritization of MPs (See Activity [3-1-4] for details)	<ul style="list-style-type: none"> • Evaluation/prioritization of shortlisted MPs (selection of the MP supported by the Project)
Review of traditional/existing regulations	<ul style="list-style-type: none"> • Review of traditional regulations • Review of existing regulations including municipality regulations (if any)
Discussion on draft suco regulations	<ul style="list-style-type: none"> • Discussion on each chapter of draft suco regulations
Review of draft suco regulations	<ul style="list-style-type: none"> • Finalization of draft village regulation • Training for PLUP working group on consultation at each aldeia
Revision of draft suco regulations	<ul style="list-style-type: none"> • Consultation with each aldeia on draft village regulation • Reflection of received comments into the draft
Finalization of suco regulations	<ul style="list-style-type: none"> • Confirmation of finalized suco regulations • Preparation of Tara Bandu
Tara Bandu ceremony	<ul style="list-style-type: none"> • Sharing of the suco regulations (incl. future land use plan) • Endorsement (signing) of the suco regulations for inauguration

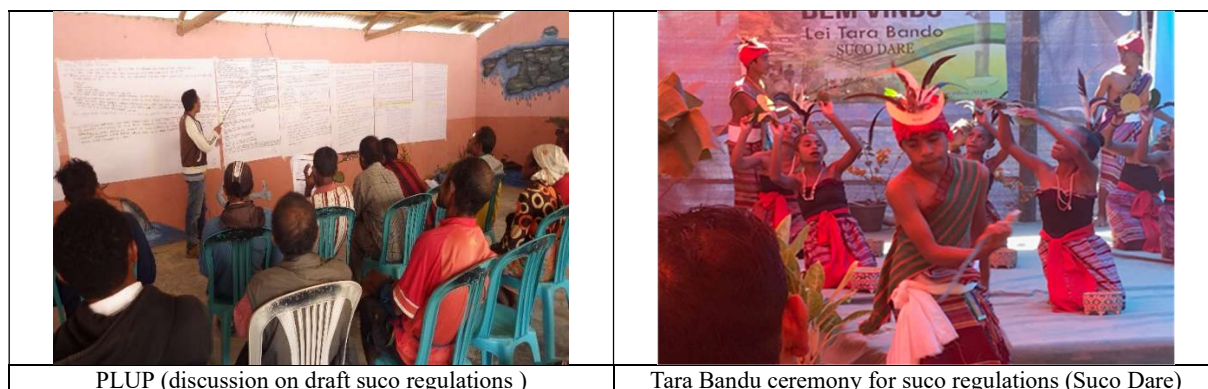
The following table shows the schedule of PLUP for 1st to 3rd batch villages (including MP implementations).

Table 2-1-35: Implementation schedule of PLUP and MP in target sucos (actual)

Batch	Water-shed	Suco (Village)	CB-NRM	2016		2017				2018				2019				2020			
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1st Batch	Noru	Fahisoi L	PLUP		Planning				Implementation/monitoring												
			MP					Sustainable upland farming MP													
		Fahisoi R	PLUP		Planning				Implementation/monitoring												
			MP					Sustainable upland farming MP													
	Bemos	Fatisi	PLUP		Planning				Implementation/monitoring												
			MP					Sustainable upland farming MP													
		Bocolelo	PLUP		Planning				Implementation/monitoring												
			MP					Sustainable upland farming MP													
2nd Batch	Noru	Manucasa	PLUP				Planning		Implementation/monitoring												
			MP					Sustainable upland farming MP													
		Maumeta	PLUP				Planning		Implementation/monitoring												
			MP					Sustainable upland farming MP													
	Bemos	Cotolau	PLUP				Planning		Implementation/monitoring												
			MP					Seedling production & tree planting MP													
3rd Batch	Noru	Fatrlau	PLUP							Planning		Implementation/monitoring									
	Bemos	Dare	PLUP								Planning		Implementation/monitoring								

Note: “Planning” of PLUP denotes the process up to the endorsement of suco regulations by traditional ceremony of Tara Bandu while “Implementation/monitoring” means the enforcement of suco regulations and its monthly monitoring





[3-1-4] To assist the local residents to identify and select the MPs to be implemented

The Project facilitated the communities in selecting appropriate MP based on their future land use plans and local conditions and needs. The detailed process of MP selection is shown in the table below.

Table 2-1-36: Selection process of MP in the CB-NRM mechanism

Process	Method
Selection of candidate MPs	<ol style="list-style-type: none"> 1. Explanation of respective MP (Seedling Production and Tree Planting Promotion MP, Sustainable Upland Farming Promotion MP, Community-Based Seed Extension MP, Sustainable Use of Backyard/Permanent Farms MP, Income Generating/Livelihood Development MP) 2. Selection of 3 candidate MPs by gender (3 for female group and 3 for male group) 3. Presentation of female and male groups on selections, plenary discussion (preparation of MP shortlist)
Evaluation and prioritization of MPs	<ol style="list-style-type: none"> 4. Explanation on the method of MP evaluation (scoring system in terms of 1) contribution to the realization of future land use plan, 2) relation with NRM, 3) feasibility in terms of technical and resource availability, 4) size of beneficiary group and 5) impact to livelihood improvement) 5. Evaluation of candidate MPs (scoring) 6. Confirmation of prioritization

Following the selection process depicted above, all the villages in the 1st batch (i.e., Fahisoi L, Fahisoi R, Fatisi and Bocolo) opted for agriculture-oriented MPs, which were facilitated by local NGOs for implementation. There were additional MPs directly implemented by the JICA experts in Fahisoi L and Bocolo, where women were provided with a series of training on mushroom cultivation for their income generating/livelihood development, responding to the request from the communities and other stakeholders. In the 2nd batch, Suco Cotalau selected the MP for seedling production and tree planting while Maumeta and Manucasa chose the MP for sustainable upland farming (See the table below).

Table 2-1-37: MP selection by target sucos

Village/suco	Selected MP	Reason for selection
1 st batch		
Fahisoi L	Sustainable Upland Farming Promotion/ Community-Based Seed Extension MP	<ul style="list-style-type: none"> • To transform from shifting cultivation to permanent farming with crop diversification • To contribute to the conservation of soil and water sources • To learn techniques for livelihood improvement in collaboration with Peace Corps and CP officers.
Fahisoi R	Ditto Income Generating/ Livelihood Development MP	
Fatisi	Sustainable Use of Backyard/Permanent Farms MP	<ul style="list-style-type: none"> • To transform from shifting cultivation to permanent farming with crop diversification • To learn improved techniques for backyard farming • To learn techniques for livelihood improvement
Bocolo	Ditto	

Village/suco	Selected MP	Reason for selection
	Income Generating/ Livelihood Development MP	
2nd batch		
Manucasa	Sustainable Upland Farming Promotion/ Community- Based Seed Extension MP	<ul style="list-style-type: none"> To transform from shifting cultivation to permanent farming with crop diversification To contribute to the conservation of soil and water sources
Maumeta		
Cotolau	Seedling Production and Tree Planting Promotion MP	<ul style="list-style-type: none"> To contribute to the conservation of soil and water sources To benefit all community members through collective participation

[3-1-5] To assist the local residents to identify and select the MP to be implemented

The Project organized the preparatory activities for MP implementation in cooperation with the contracted NGOs, as shown in the table below. The communities formed beneficiary groups at aldeia (sub-village) level, prepared work plans, and implemented activities accordingly. Beneficiaries are 120 households/village on average and a total of about 720 households¹⁵ for MP implementation.

Table 2-1-38: Facilitation for MP implementation

Activity	Results
Formation of beneficiary groups	Beneficiary groups were formed and the roles of each member within the group were determined. In principle, one group was formed per aldeia, although sometimes two groups established with consideration to the size of aldeia and access to natural resources. In total, 28 groups of 7 villages engaged in the MPs with 10 to 40 members per group.
Study tour	The beneficiary groups visited a nearby villages that had already implemented the same MP so as to deepen their understanding on MPs and gain good motivation to work. The groups in the 1 st batch villages visited the village supported by Phase 1 while those in the 2 nd batch villages joined the tour to the 1 st batch and Phase 1 villages. As such, village-to-village knowledge sharing has been promoted.
Formation of work plan for MPs	Workshops were held to determine the activities of the MPs and develop workplans for implementation. In principle, 1 st year was spent on demo-plot activities while members applied learned techniques at individual farms in 2 nd year.

[3-1-6] To monitor the observance of suco regulations and implementation of MPs

(1) Monitoring on the observance of suco regulations

Monitoring on the observance of suco regulations was conducted with monthly village meetings. In the meeting, the representatives of each aldeia reported the cases of illegal conducts, including i) causing forest fires, ii) illegal tree cutting, and iii) crop damage caused by free grazing of livestock animals. With the presence of chefe de suco (village chief) and other stakeholders, the participants discuss possible solutions for the cases. The Project (CP officers and JICA Project Team) attended the monthly monitoring meetings and facilitated discussion for case resolution.

Most of the 4 villages in the 1st batch started the operation of suco regulations in September 2017. The results of their monitoring are presented in the table and figure below. In the figure, the blue line shows the number of cases reported in respective month, while the orange line reveals the cases solved with suco regulations, settlement between/among parties involved, or collective action by the community.

¹⁵ The original number of the target villages for MP implementation was 6, although Suco Fatisi in the 1st batch was divided into two villages, i.e., Fatisi and Bocololo, in 2017 while maintaining the original target number of the beneficiaries.

The table summarizes the number of reported cases and that of solved cases on a biannual basis. There was a recognizable gap between the number of cases reported and that of cases solved at the beginning of monitoring; however, the ratio of solved cases in the total reported case increased from the middle of monitoring period. Thus, it is fair to assume that the community’s capacity for NRM has been gradually strengthened, as the operation of suco regulations became normalized.

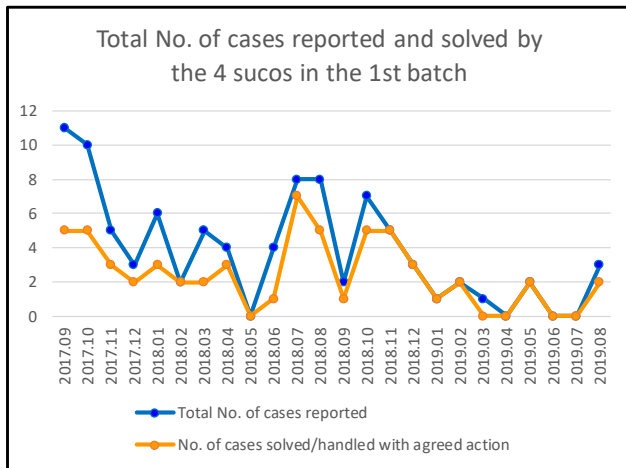


Table 2-1-39: Cases reported and solved (biannual)

Monitoring period	No. of cases reported	No. of cases solved	% of the solved
Sept.2017 - Feb.2018	37	20	54%
Mar.2018 - Aug.2018	29	18	62%
Sept.2018 - Feb.2019	20	17	85%
Mar.2019 - Aug.2019	6	4	67%

Figure 2-1-3 : PLUP monitoring result (1st batch)

Monitoring of the 2nd batch of 3 villages started in March-April 2018. The results of the monitoring are shown below. As the figure demonstrates, there was a fluctuation of reported cases in the first year (March 2018-February 2019). On the other hand, the ratio of solved cases increased from 33% to 84% in the same period. Presumably, the capacity of the community for coping with illegal acts was enhanced in this period. In addition, the incidence of illegal acts had significantly dropped in the second year (5 cases in total), suggesting that the capacity of preventing illegal acts also improved.

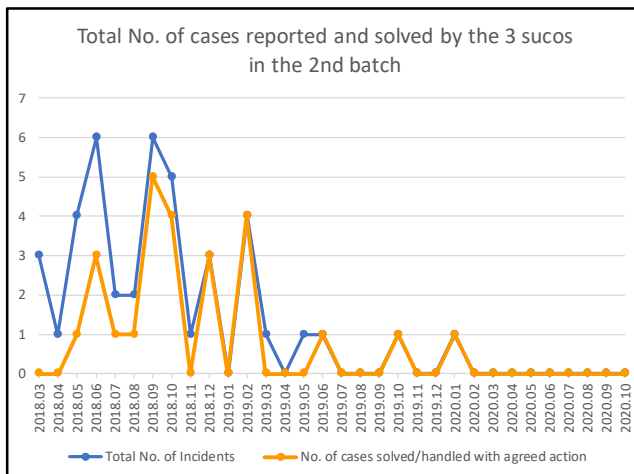


Table 2-1-40: Cases reported and solved (biannual)

Monitoring period	No. of cases reported	No. of cases solved	% of the solved
Mar.2018 - Aug.2018	18	6	33%
Sept.2018 - Feb.2019	19	16	84%
Mar.2019 - Aug.2019	3	1	33%
Sept..2019 - Feb.2020	2	2	100%
Mar.2020 - Aug.2020	0	0	-
Sept..2020 - Oct.2020	0	0	-

Figure 2-1-4: PLUP monitoring result (2nd batch)

The 3rd batch of 2 villages commenced monitoring in January 2019 (in Fatrilau) and March 2019 (in Dare), respectively. Although there was a spike in forest fire cases during the dry season in the latter half of monitoring period (August-November 2020), the reported cases in general were on the decline

in the second year (2020) compared to the first year (2019). While the identification of causes of forest fires (i.e., illegal conducts or a person which led to the fires) was difficult, community people held a series of discussions and decided to rehabilitate the damaged areas by tree planting with the assistance of the local NGO. Such a response by the community indicates the internalization of the concept of NRM among community members. In fact, the percentage of solved cases steadily increased from the inception of the monitoring.

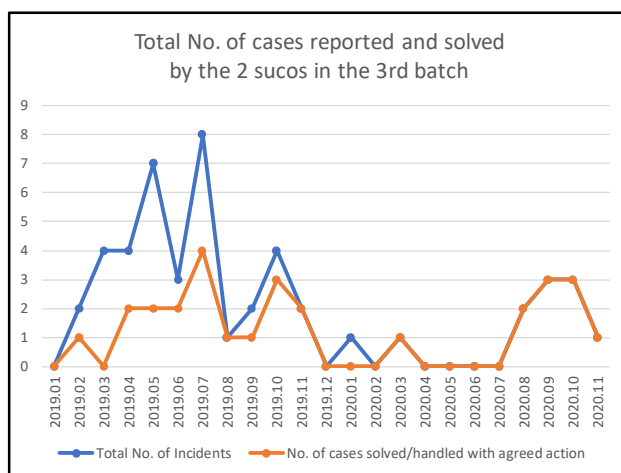


Figure 2-1-5: PLUP monitoring result (3rd batch)

Table 2-1-41: Cases reported and solved (biannual)

Monitoring period	No. of cases reported	No. of cases solved	% of the solved
Jan.2019 - Jun.2019	20	7	35%
July 2019 - Dec.2019	17	11	65%
Jan 2020 - Jun 2020	2	1	50%
July 2020- Nov 2020	9	9	100%

(2) Monitoring on MP implementation

In the MP implementation, CP officials and NGOs provided the beneficiary groups with a set of hands-on training on improved techniques at demo-plots or nurseries established. This hands-on training was conducted in accordance with the work plan prepared by the beneficiary groups. The support for MP implementation continued for two years. In accordance with the selection of the respective communities, the Project supported the MPs on 1) sustainable upland farming, 2) seedling production and tree planting, and/or 3) income generating/livelihood development.

Sustainable upland farming MP

Four (4) target villages of the 1st batch and 2 villages of the 2nd batch were determined to implement the MPs for sustainable upland farming. The contents of hands-on training are shown in the Box on the right. They started training at the demo-plots in May of the 1st year and applied the learned techniques into individual plots in the 2nd year. The 1st batch ended the MP with the second harvest in 2018/19 season, whereas The 2nd batch did so in 2019/20 season. The tables below summarize maize yields under the MP in the target villages. They also indicate the data of plots without MP intervention, i.e., plot under shifting cultivation, for comparison.

Box: Training sessions of upland farming MPs

- Compost making and maintenance
- Making A-frames and delineation of counter lines with A-frames
- Application of soil conservation measures such bench terraces and counter compost
- Plowing with compost
- Seed selection and sowing
- Making organic liquid fertilizer and farm maintenance
- Harvesting and post-harvesting
- Introduction of cover crops
- Building animal pens

Table 2-1-42: Maize yield under the sustainable upland farming MP (2018/19 season)

Watershed	Village	No. of demo-plots	Yield range*	Average yield	Remark
Bemos	Bocolelo	5	1.2-3.2 ton/ha	2.4 ton/ ha	1 st batch suco
Bemos	Fatisi	4	1.8-3.2 ton/ ha	2.0 ton/ha	1 st batch suco
Noru	Fahisoi-L	3	2.0 -2.4 ton/ha	2.2 ton/ha	1 st batch suco
Noru	Fahisoi-R	3	2.2-2.3 ton/ ha	2.2 ton/ha	1 st batch suco
Noru	Manucasa	3	1.3 -2.5 ton/ha	2.0 ton/ha	2 nd batch suco
Noru	Maumeta	3	1.5 -2.4 ton/ha	1.8 ton/ ha	2 nd batch suco
Bemos	Bocolelo	(Reference)	0.6-0.9 ton/ha	0.7 ton/ha	Plot without application of improved technique

Note: * Yield/ha was estimated with yield sample of 2m x 2m for the demo-plots in Bemos watershed. As for demo-plots of Noru watershed, yield/ha was estimated from the production per plot.

Source: data obtained by the contracted NGOs.

Table 2-1-43: Maize yield under the sustainable upland farming MP (2019/20 season)

Watershed	Village	Aldeia/ demo-plot	Yield (with improved techniques)	Yield (without improved techniques)	Remark
Noru	Manucasa	Manutae 1	3.35 ton/ha	1.58 ton/ha	2 nd batch suco
		Manutae 2	2.03 ton/ha	1.08 ton/ha	2 nd batch suco
		Fatumerin	2.97 ton/ha	1.06 ton/ha	2 nd batch suco
Noru	Maumeta	Aibana	2.90 ton/ha	1.54 ton/ha	2 nd batch suco
		Aitoi	4.22 ton/ha	1.63 ton/ha	2 nd batch suco
		Tukeu	4.02 ton/ha	1.63 ton/ha	2 nd batch suco

Source: data obtained by the contracted NGOs.

As can be seen in the tables above, maize yields in the MP demo-plots with improved techniques are higher than those without MP interventions. For both 1st batch and 2nd batch, the yields in 2018/19 season marked fairly high results compared to the standard yield range (1.0 ton/ha¹⁶ to 1.5 ton/ha¹⁷) often referred to in Timor-Leste. In general, maize production was high in 2019/20 compared to the previous season, which demonstrates more remarkable difference with MP implementation. These outputs confirm the effectiveness of the MP implementation to promote upland farming in permanent land. With the help of Department of Soil and Nutrition of Plants (NDSRGI¹⁸, MAF), the CP officers and JICA experts measured soil acidity (pH) at the demo-plots and transferred the technique of soil acidity correction, using local material of “ahu” (lime), in 2019/20 season. This assistance is considered an additional factor for increased production at the demo-plots.



Compost making in upland farming MP

Use of A-frame for delineation of contour lines

¹⁶ For instance, see: <http://www.fao.org/3/ah866e/ah866e00.htm>

¹⁷ For instance, see: <http://seedsoflifetimor.org/wp-content/uploads/2016/04/E8.-Good-agricultural-practice-for-maize.pdf>

¹⁸ National Directorate of Statistical Research and Geographical Information



Lime application for soil pH correction

Maize harvest in upland farming MP

Seedling production and tree planting MP

Different from other target villages, Suco Cotolau in the 2nd batch selected seedling production and tree planting MP. The contents of hands-on training are shown in the Box on the right.

The community formed 6 beneficiary groups at aldeia level and established nurseries for respective groups. Subsequently, a series of hands-on training was provided. Through the 2-year cycles of hands-on training, the beneficiary groups produced the seedlings of lime, sandalwood, cacao, clove and mahogany (7,900 seedlings in total). These tree species were chosen in consultation with the community, which sought fruit trees and spice trees as future sources of income generation. The table below shows seedling production by respective nursery.

- Box: Training sessions of seedling production and tree planting MP**
- Nursery establishment
 - Compost making and maintenance
 - Seedbed making
 - Seed selection and preparation
 - Sowing and maintenance of seeds
 - Preparation of seedling pots
 - Transplanting sprouts into pots
 - Maintenance of seedlings
 - Delineation of contour lines, sticking of stakes and digging of planting pits
 - Planting of seedlings and tending

Table 2-1-44: Seedling production in seedling production and tree planting MP (Cotolau)

Aldeia/nursery (No. of members)	Seedling production				
	Lime	Sandalwood	Cacao	Clove	Mahogany
Cotolau 1 (15)	202	-	330	330	165
Cotolau 2 (16)	151	-	334	352	140
Ramerlau (24)	-	-	405	488	665
Oronai 1 (22)	180	64	-	1,210	77
Oronai 2 (9)	-	-	270	180	198
Lebucucu (40)	-	-	290	1,210	700
Total	533	64	1,629	3,770	1,945

Income generating/ livelihood development MP

In addition to the MPs implemented under facilitation of the contracted NGOs, the CP officers and JICA experts promoted mushroom cultivation in Fahisoi L and Bocolelo mainly for income generation for women. The Project organized the training sessions (mother spawn production, preparation of

cultivation bag using locally available plant materials and inoculation of mycelium), supported the construction of a cultivation room, and assisted their marketing (a matching with buyers). 14 community members from Fahisoi L (female 11 and male 3) and 17 members from Bocololo participated in the mushroom cultivation, either individually or by group.

	
Mushroom cultivation in income generating/livelihood development MP	Transplanting sprouts into seedling pots in seedling production and tree planting MP

[3-2] Facilitate the establishment and operation of WMCs in the Project Sites

[3-2-1] To review the performance of Noru WMC to analyze its necessity and effectiveness

[3-2-2] To examine and introduce possible improvement of the Noru WMC

[3-2-3] To monitor the activities of Noru WMC

The WMC consists of the leaders of PA and villages located within the same sub-watershed, including villages where the CB-NRM mechanism has been introduced. Noru WMC was formulated under the support of Phase I and holds quarterly meetings in principle. (Due to the impact of the COVID-19 pandemic and lack of fund, the regular meeting is not currently conducted.) In the meeting, the village leaders in the watershed reported cases of illegal conducts and how they responded to them. Discussions are often made on inter-village issues which need collective actions between/among villages. The CP officials and JICA experts attended regular meetings and their discussions while examining the effectiveness and possibility of improvements for the council operation and providing advice and necessary supports. The following summarizes the effectiveness and challenges of WMC, which were identified in the course of these activities.

Effectiveness of the WMC

- After Phase I, the cases of large-scale illegal conducts and forest fires have been reduced to a minimum. The WMC is a platform for reporting illegal acts and forest fires and discuss possible solutions. It works as an effective mechanism for peer monitoring and checking the occurrence of illegal activities. This function, therefore, provides an incentive for a village to observe suco regulations and thereby promote environmental conservation at watershed level.

- The WMC can have a catalyst effect in coordinating the external supports from government and DPs from the perspective of watershed management. For instance, the Project consulted with them for the selection of target villages. The WMC then identified a village with important water sources to provide water to neighboring villages and nominated it for the target.
- The WMC can serve as a platform for coordinating and resolving inter-village cases. In September 17, for instance, the vice chair of the WMC concluded that the forest fire in Suco Faturasa had been initially caused in Fadabloco and directed the chefe de suco (village chief) of Fadabloco to tighten the monitoring of village borders. The two villages discussed ways to restore the damaged areas in the meeting and collectively tackled the issue without any disputes. There was another good practice of the WMC as a coordinating body under Phase I: the WMC decided to hold a traditional ceremony to enhance the community's understanding and participation in controlling frequent forest fires and crop damages by free animal grazing at village borders.
- Through the WMC, the villages in the watershed can collectively request support and propose a project for improvement of watershed or community livelihoods. With the facilitation of the local NGO, the WMC decided to plant trees at each village for controlling soil erosion, restoring degraded lands, and conserving water sources. Subsequently, it submitted a request for seedling distribution to the MAF, which provided 9,000 seedlings to 12 villages in the watershed in 2018. During the project period, Bemos WMC was established as reported later. The requests for seedling distribution by the two WMCs (Noru and Bemos) have been approved almost every year, except for 2020, when they did not make a proposal, as they were affected by COVID-19. As such, the WMC has a high potential to be a coordinating body between the village and the central government.

Challenges (area for improvement)

- At present, the WMC is not an official governmental entity and therefore has no recurrent budget disbursed from the government. They need external support from DPs or NGOs to conduct NRM monitoring and joint activities: the regular WMC meetings were held with the support of the local NGO, for example. On the other hand, the government established a national watershed management council in December 2016, which consists of several line ministries concerned with watershed management. In the future, this national-level WMC is expected to function and become overarching body, and local WMCs would be institutionalized under the national one. Yet this possibility is still unclear. Under such circumstances, the Project proposes, as one of the policy recommendations on the CB-NRM mechanism, to institutionalize the work of WMC as part of governance rendered by the municipality and its PA, so as to ensure necessary budget to carry out activities.

[3-2-4 to 3-2-8] To assist the formation of the WMC in Bemos Sub-watershed

Advice to local authorities

The Project supported the formation and operation of Bemos WMC with the contracted NGO. The

Project visited Laulara PA in Aileu Municipality, which covers most area of Bemos sub-watershed, and explained the concept of CB-NRM mechanism and effectiveness of WMC based on the experience in Noru. Having acquired their consensus, the Project held a consultation meeting in July 2017 with the village leaders in Bemos sub-watershed under the facilitation of the local NGO, where agreements were made on the formation of WMC and steps for the formation¹⁹.

Study tour and stakeholder analysis

Based on the steps agreed in the consultation meeting, the council members visited Suco Fadabloco, a target village of Phase I, and deepened their understanding on the CB-NRM mechanism. In the following month (September 2017), they participated in the regular meeting of Noru WMC and learned the roles and responsibilities of the council. After the study tour, they conducted a stakeholder analysis in a workshop and finalized the council membership and clarified the roles of each member, as shown in the table below.

Table 2-1-45: Members of Bemos WMC

Position	Member
Chair	Post-administrator of Laulara PA
Vice chair	Community development officer of Laulara PA
Council member	Chefes de sucos (village chiefs) in Bemos sub-watershed (Fatisi, Bocolelo, Cotolau, Talitu, Madabeno, Tohumeta and Dare)
Secretariat	Technical officer of NDFWMAM, Forest guard of Aileu Municipality

Situation analysis for setting vision for the council

In December 2017, the council members, under the guidance of the JICA experts and the NGO, made a situation analysis, including historical trends on forest resources in the sub-watershed. Based on this analysis, they developed the vision, mission and objectives and functions of the watershed management council. (See the table below.)

Table 2-1-46: Vision, mission, objectives and functions of Bemos WMC

Vision	Bemos WMC is a non-profit alliance comprising sucos and PA office of Laulara concerned and relevant government agencies with the aim to properly protect and manage forests, lands, and water resources in Bemos watershed to improve living conditions and livelihoods of residents in the watershed and stabilize water supply to the downstream areas.
Mission	<ul style="list-style-type: none"> • To provide guidance and orientation to suco leaders toward sustainable management of forests and forest-related natural resources in the sub-watershed; • To provide leadership in harmonizing the interests and activities of the sucos to achieve sustainable forests and forest-related NRM in the sub-watershed; • To take initiative in planning, implementing, and evaluating a watershed management plan to manage forests and forest-related natural resources in a proper and sustainable manner while improving local livelihoods in the sub-watershed; • To help the suco leaders enhance awareness of communities on sustainable forest and forest-related NRM; • To promote necessary actions for sustainable forest and forest-related NRM in coordination with relevant government and non-government organizations as well as international organizations; • To help suco leaders hand over the valuable forests and forest-related natural resources to the future generations; and • To share the experiences with local governments (sucos, PA, and municipalities) in other watersheds in Timor-Leste to promote sustainable forest and forest-related NRM at watershed level.

¹⁹ In the meeting, chefes de sucos of target villages in Phase I also participated and shared the experience of activities of CB-NRM mechanism and their outputs.

Objectives	<ul style="list-style-type: none"> • To reduce the incidence of environmental degradation events, such as forest/wild fire, illegal exploitation, and free grazing in the sub-watershed; • To protect and improve the conditions of forests and forest-related natural resources, namely, forests, lands/soils, wildlife, and water, in the sub-watershed; • To improve and enhance livelihoods of local communities in the sub-watershed; and • To enhance the capacity of suco leaders as well as communities for managing forests and forest-related natural resources in a proper and sustainable manner.
Functions	<ul style="list-style-type: none"> • To formulate a watershed management plan with the assistance from relevant government and non-government organizations; • To prepare an annual action plan to implement the watershed management plan every year; • To monitor and evaluate the implementation of the annual action plan every year; • To coordinate the implementation of the watershed management plan with relevant government and non-government organizations; • To convene a regular meeting every quarter to monitor the situation of the sub-watershed and discuss any issues relevant to sustainable management of forests and forest-related natural resources in the sub-watershed; • To adopt a resolution that would encourage all sucos in the sub-watershed to work on sustainable forest and forest-related NRM; • To call a meeting whenever circumstances require it; and • To organize a working group (or a committee) to tackle any important issues that would affect the management of the sub-watershed.

Formulation of by-laws and resolution of the WMC

Based on discussion on the vision and mission, the JICA experts supported the formulation of a draft resolution for the official formation of Bemos WMC. The council members then finalized the resolution in consultation with the CP officials of NDFWMAM.

Facilitation for the formation of the WMC

The JICA experts attended a series of meetings for the formation of Bemos WMC and oversaw the facilitation of the process by the local NGO. In addition, they promoted the coordination with stakeholders in cooperation with the CP officials. In March 2018, the council members endorsed the resolution, and the Bemos WMC was formally established. The 1st regular meeting of the council was held at the same time.

[3-2-9] To monitor the activities of Bemos WMC

After the establishment of Bemos WMC, the Project supported their regular meetings for NRM, while facilitating the development of watershed management plan from 2nd regular meeting in July 2018. The council conducted a situation analysis of Bemos sub-watershed in the 3rd regular meeting (October 2018) and a problem analysis, which was followed by discussion on goal setting, plan and implementation schedule in the 4th regular meeting (January 2019). In the 5th meeting (May 2019), the council started drafting the watershed management plan. In the draft, future land use maps of respective villages were consolidated at sub-watershed level, and the application of a series of MPs including sustainable upland farming was proposed as a program of the watershed management plan. The final draft was formulated in September 2019, and it was finalized with submission to Aileu Municipality after the endorsement by council members in December 2019.



- [3-3] Conduct the OJT for the key operational actors in and outside the Project Sites through the implementation of the CB-NRM mechanism in 3-1 and 3-2 above
- [3-3-1] To select the key operational actors who will participate in the OJT
- [3-3-2] To make necessary arrangement for the selected actors to take part in the OJT
- [3-3-3] To conduct the OJT along with the implementation of CB-NRM mechanism
- [3-3-4] To review the process of the OJT

The Project organized OJT for 1) field staff of NGOs and DPs engaged in the forest and watershed management sector, 2) officers of National Directorate of Formation and Agricultural Training (NDFAT) and tutors of Agricultural Technical School (ETA²⁰) under MAF, and 3) CP officers at NDFWMAM and Aileu and Dili Municipalities.

OJT for NGO/DP field staff

At the inception of the Project, the JICA experts discussed with various stakeholders, identifying key DP actors who were interested in the application of PLUP and local NGOs working in the priority watersheds. Based on the information collected, the Project recruited and selected participants for OJT.

The OJT was conducted in line with PLUP/MP implementation batches. Up to the 2nd batch, the performance of the trainees after completing the OJT was not so impressive, showing the low degree of application of the techniques that they had learned. One of the reasons for this poor outcome was difficulties for local NGOs to get business from DPs, which tended to select always the “same” NGOs with sufficient field experience of PLUP, exactly like those that the Project contracted for the CB-NRM activities. Thus, new NGOs without CB-NRM experience would have no opportunity to practice what the trainees learned from OJT. Another reason was that several DPs that assigned their staff to the OJT did not conduct PLUP due to internal reasons including their own budget limitations. These findings forced the Project, for the 3rd batch OJT, to focus on actors who have concrete plans of CB-NRM implementations, e.g., the staff of WB-SAPIP and EU-PSAF as well as the new staff of the contracted

²⁰ Acronym of Escola Técnico Agrícola (Portuguese).

NGOs of the Project. With this focus, the Project acquired 35 field officers of 20 organizations for OJT on PLUP and/or MP and confirmed that 20 of them have engaged in the activities of CB-NRM mechanism with their own resources or with other DP resources.

OJT for NDFAT and ETA

Under the consultation with NDFAT, the Project organized the OJT on MP for 2 officers of NDFAT and 6 lecturers of ETA along with the cycle of MP implementation. The OJT consisted of the sessions on the MPs of sustainable upland farming and income generating/livelihood development (mushroom cultivation). For the mushroom cultivation in particular, several ETA tutors made a trial and held a class session for their students. After the OJT, the Project conducted the capacity assessment (scoring based on examination and attendance) and awarded a certificate on MP to these trainees.

OJT for CP

In addition to the field staff of NGOs and DPs, the Project also provided OJT to the CP officers of NDFWMAM and Aileu and Dili municipalities. As they are expected to be involved in other projects as government officials and take central role in the implementation and expansion of CB-NRM mechanism according to their respective duties, the Project introduced a capacity assessment framework and certification system for “CB-NRM Technical Coordinator.”²¹ In accordance with the position and duty of individual trainee, the Project developed a training program and its assessment framework and then assessed her/his performance based on the framework. The following table illustrates the capacity assessment framework with methods of evaluation, e.g., examination, field practice, report writing, etc. Consequently, 14 CP officers of 17 OJT participants were awarded the title of “Technical Coordinator” with certificate²².

Table 2-1-47: Capacity assessment framework of CB-NRM Technical Coordinator

Position	Required role	Evaluation aspects (evaluation method)				
NDFWMAM staff	Overall management of CB-NRM project	<u>Understanding on CB-NRM</u> (examination)	<u>Annual planning</u> (preparation of annual plan and implementation)	<u>Monitoring</u> (field reporting/ data analysis)	<u>Knowledge on MP</u> (examination)	<u>Promotion of CB-NRM</u> (presentation)
MAF Aileu technical staff	Supervision of field-level CB-NRM activities					
Forest guard	Supervision of PLUP/MP implementation PLUP/ MP					<u>Knowledge on seedling production and tree planting</u> (examination)
Extension officer	Supervision of PLUP/MP implementation PLUP/ MP					

²¹ The title is named “CB-NRM Promotor” in the PDM; however, after consultation with the CP officials, the official title was decided to be “CB-NRM Technical Coordinator” so as to be well recognized and highly valued in the government system.

²² As a result of capacity assessment, the Project awarded the title of “Assistant Technical Coordinator” for those who did not fulfill the criteria for the Technical Coordinator.

Achievements of OJT

As described above, the Project evaluated the performance of OJT participants and made follow up on whether/ how they practiced the CB-NRM activities after OJT. The results of performance assessment and follow-up for practice can be summarized in the table below. More than half of ex-trainees are confirmed to be engaged in CB-NRM activities outside of this Project.

Table 2-1-48: Result of OJT and status of CB-NRM practice

Key operational actor	No. of OJT trainees	Certification of CB-NRM Facilitator/ Technical Coordinator		Those engaged in CB-NRM activities	
		No. of certified	Rate of certification	No. of engaged actors	Rate of engaged actors
DP/NGO	35	27	77%	20	57%
MAF NDFAT/ ETA	8	8*	100%	5	63%
CP officers (NDFWMAM and MAF Aileu)	17	14	82%	9	53%

Note: Certified only for MP on sustainable upland farming/ mushroom cultivation.

[3-3-5] To accumulate information on the key operational actors who completed the OJT to compile them into a list of the human resource for CB-NRM

After the completion of 3rd batch OJT, the Project compiled a list of certified OJT trainees/ human resource pool for CB-NRM activities (organization, area of work, experience on CB-NRM, contact, etc.) On request of DPs looking for PLUP facilitators (e.g., GIZ and CI), the Project shared this list, so as to facilitate matching between the two. Moreover, the JICA experts discussed with the local NGO that facilitated PLUP under SAPIP and proposed to form a facilitation team with OJT participants, promoting the utilization of key operational actors capacitated in the Project.



2.2. Achievements of the Project

2.2.1. Outputs and Indicators

The Project, despite the negative effects of COVID-19 pandemic on implementation, has almost fully achieved its outputs, as summarized in the table below. With respect to Indicator 1-2, which is “to be achieved” by the government initiatives, it can be expected that the roadmap, which was already approved by DGFCIP, will be explained to H.E Minister of MAF by DGFCIP initiatives, so as to obtain his approval as well. Regarding Indicator 2-2, since the outbreak of COVID-19, there has been no opportunity to organize the DP coordination meeting. However, a series of the meetings, which had been held before, has already created an “enabling environment,” in which the Project and its stakeholders actualize various collaborations for expansion of the CB-NRM mechanism over the country. This could prove a sufficient level of achievement against this indicator.

Table 2-2-1: Degree of Achievements of Project Outputs

Indicators	Achievements
Output 1: The roadmap for future expansion of the CB-NRM mechanism is formulated.	
Indicator 1-1: The skeleton framework of the roadmap is formulated in alignment with other relevant policies and programs.	<u>Achieved.</u> The roadmap was formulated as a part of implementation program for Forest Law, Forest Sector Policy and MAF Strategic Plant.
Indicator 1-2: The roadmap is approved by MAF.	<u>To be Achieved.</u> The roadmap was approved by DGFCIP , who will bring this document to H.E Minister of MAF to obtain his approval.
Output2: Enabling environment is developed to enhance relevant institutions for expansion of the CB-NRM mechanism.	
Indicator 2-1: A new set of policy recommendations is formulated based on the results of monitoring on the implementation of the CB-NRM mechanism by NDFMAM	<u>Achieved.</u> The new set of policy recommendations was formulated by the roadmap taskforce and endorsed by DGFCIP.
Indicators 2-2: Meetings/ information exchange activities among stakeholders and key operational actors are regularly held at least biannually through the CB-NRM platform to promote CB-NRM	<u>Achieved before the COVID-19 pandemic.</u> In total, 10 times of DP and NGO coordination meetings have been held with 8 times for DPs and 2 times for NGOs. After the outbreak of COVID-19, individual meetings/ information exchanges were undertaken between the Project and its stakeholders, creating tangible actions of collaboration.
Indicators 2-3: Lessons learned and good practices gathered through the CB-NRM platform are compiled as reference documents and shared among the members.	<u>Achieved.</u> Project information, lessons learned, and good practices were shared among the member of the DP coordination as far as forestry and watershed management are concerned. They include the following. <ul style="list-style-type: none"> - Profile of the DP projects - DP-project-targe- area map - Database of the DP projects e.g., on tree planting achievement and reports - Good Practice Report on Integration methods of PLUP and CCVA

Indicators	Achievements
	<ul style="list-style-type: none"> - Common guidelines for watershed management among DPs - PLUP Good Practice Study Report <p>In addition to the above, the Project provided its practical knowledge on sustainable upland farming MP to the good-practice documents compiled by other DPs as follows.</p> <ul style="list-style-type: none"> - Compendium of Adapted Technologies and Practices for Climate Resilient Agriculture compiled by FAO - Climate Smart Agriculture Review compiled by TOMAK
Output3: Capacities of key operational actors including NDFWM, NGOs and other stakeholders are improved through actual engagement in implementation of the CB-NRM mechanism	
Indicator 3-1: 3-1 Suco regulations for CB-NRM are formulated in Sucos, where CB-NRM mechanism has been implemented	<u>Achieved.</u> Suco regulations for CB-NRM were formulated in all 9 Sucos supported by this Project. This can be applied to other Sucos, where the full package of PLUP was supported by other DPs.
Indicators 3-2: At least 30 key operational actors are trained by the Project through implementation of CB-NRM mechanism as On-the-Job Training (OJT).	<u>Achieved.</u> 35 actors from 20 DPs/NGOs were trained as CB-NRM facilitators on PLUP or MP. 8 actors from ETA and NDFAT were trained on sustainable upland farming MP and mushroom cultivation. 17 actors of NDFMAM and Aileu and Dili Municipalities were trained on CB-NRM technical coordination.

2.2.2. Project Purpose and Indicators

The Project has achieved its purpose, as can be seen in the table below. All the indicators in PDM were met successfully.

Table 2-2-2: Achievements of Project Purpose

Indicators	Degrees of achievements
Purpose: Capacities of key operational actors including NDFWM, NGOs and other stakeholders to expand the CB-NRM mechanism are enhanced.	
Indicator 1: The activities in the Project Sites and/or other watersheds are implemented as part of the roadmap.	<u>Achieved.</u> The CB-NRM activities are implemented not only by the Project but also by other DP Projects (e.g. WB-SAPIP and EU-PSAF) in approximately 80 villages in the Project Sites and/or other watersheds, as part of the roadmap.
Indicator 2: At least 60% of the key operating actors trained by the Project take part in implementation of CB-NRM mechanism in the Project Sites and/or in other watersheds or are qualified as CB-NRM facilitators/promoters.	<u>Achieved.</u> <ul style="list-style-type: none"> - 77% of the DP/ NGO OJT participants (27/35) were qualified as the CB-NRM facilitators by the capacity assessment on facilitation and guidance skills. And 57% (20/35) were engaged in the CB-NRM activities outside of this Project. - 63% (5/8) of the NDFAT/ETA officials applied the techniques of the MPs after OJT, especially of mushroom cultivation. - 82% of the CP officials (14/17) were qualified as the CB-NRM technical coordinators by the capacity assessment on understanding, planning, monitoring, and reporting. And 53% (9/17) were engaged in the CB-NRM activities outside of this Project.

Indicators	Degrees of achievements
<p>Indicator 3: Collective actions for forestry and watershed management are undertaken by communities which have introduced the CB-NRM mechanism by the Project</p>	<p><u>Achieved.</u></p> <p>In 6 villages supported by Phase I</p> <ul style="list-style-type: none"> - All communities undertake NRM, using suco regulations and/or municipal regulations. - They are also continuing CB-NRM activities with supports from MAF which secures follow-up budgets every year for revision of the suco regulations and continuation and expansion of MP activities e.g. training at demo plots, etc. <p>In 9 villages supported by this Project</p> <ul style="list-style-type: none"> - All communities undertake NRM, using suco regulations and/or municipal regulations. The monthly monitoring over two years revealed the decrease in the incidence of illegal acts while the increase in the capacity for resolving the cases reported. Following are some highlights as per respective batch of the villages. - The 1st batch (4 villages) gradually reduced the incidence of illegal acts while increased the ratio of the cases solved, using the suco regulations or other methods. - The 2nd batch (3 villages) could not prevent the incidents of illegal acts in the 1st year while somehow increased the resolution capacities. In the 2nd year, it succeeded in prevention of illegal acts, encountering almost no incidents in the latter part of the year. - The 3rd batch (2 villages) reported some incidents of forest fires in the 2nd year, though they solved the cases, e.g., by joint tree planning in the burnt areas with support of the local NGOs. <p>Noru and Bemos WMCs</p> <ul style="list-style-type: none"> - Noru WMC made joint procurement of seedlings from MAF and planted around 40,000 trees from 2018 to 2022. In addition to this, it functioned as the source of good-practice dissemination, making some villages develop suco regulations following the project-target villages. It also facilitated collaboration among the member villages e.g. awareness raising on the danger of cigarette residues as cause of forest fire. Also, they received the study visit by an international NGO for watershed management. - Bemos WMS, following the case of Noru WMC, planted around 32,000 trees in their territory from 2019 to 2022. They also organized their monitoring meeting when their own budget was available. - Both WMCs require budget to continue the NRM monitoring meeting, which will be supported by NDFWMAM, as it has secured some budgets for 2022.

2.3. History of PDM Modification

The Project modified the PDM a total of 6 times during its implementation (See the table below for the history of the modifications). PDMs Ver. 01 to 03 were created in order to improve some indicators to reflect actual situations and future perspective that the Project encountered, including setting numerical targets wherever necessary. PDMs Ver. 04 to 06 were made, as the Project added the activities relating to the JICA GCF project formulation, while facing the needs of extending the project period to cope with the COVID-19 pandemic.

Table 2-2-3: History of PDM modification

Items Modified	Statement in the PDM Original (Ver.0)	Statements in the PDM Final [Version No. when modified]	Reason for modification / Process to the final statements
Duration	Four (4) years from the date of the first dispatch of expert(s)	Five years and a half (5.5 years) from the date of the first dispatch of expert(s) [Ver.06]	The project period was extended due to adding activities relating to the JICA GCF project formulation and coping with COVID-19 pandemic. PDM Ver.05 had set 5 years, which was further prolonged with Ver. 06.
Overall Goal Indicator	The CB-NRM mechanism is implemented in XX watershed in line with the roadmap by 20XX.	The CB-NRM mechanism is implemented in 14 watersheds in line with the roadmap by 2030*. [Ver.06]	The numerical targets were set in line with the CB-NRM roadmap which was formulated as Output1 of the Project.
Project Purpose Indicator 1	The activities of targeting Comoro watershed and Laolo watershed in the roadmap are implemented in accordance with plans.	The activities in the Project Sites <u>and/or other watersheds</u> are implemented <u>as part of the roadmap</u> . [Ver.01]	The addition was made due to the fact that i) the roadmap targets 14 watersheds and ii) most of the activities conducted by other DPs were in other watersheds than Laolo and Comoro watersheds.
Project Purpose Indicator 2	At least XX% of the key operating actors trained by the Project take part in implementation of CB-NRM mechanism in the Project Sites and/or in other watersheds	At least <u>60%</u> of the key operating actors trained by the Project take part in implementation of CB-NRM mechanism in the Project Sites and/or in other watersheds <u>or are qualified as CB-NRM facilitators/promoters**</u> . [Ver.03]	The numerical target was set in PDM Ver.02. However, it was turned out that DPs dispatching staff to the OJT cancelled the plan of implementing PLUP. The Project then decided to represent the capacity of the OJT participants by the results of the performance assessments, so as to recommend the employment of them for future implementation by any other agencies. [Ver.03]

Project for Community-Based Sustainable Natural Resource Management Phase II

Items Modified	Statement in the PDM Original (Ver.0)	Statements in the PDM Final [Version No. when modified]	Reason for modification / Process to the final statements
Project Purpose Indicator 3	Incidence of the events that cause forest degradation is reduced according to the observation by Suco leaders in the Project Sites.	<u>Collective actions for forestry and watershed management are undertaken by communities which have introduced the CB-NRM mechanism by the Project</u> [Ver.02]	The change was made with careful consideration of the importance of capturing communities' capacities not only for reducing the incidence of illegal acts but also for resolving cases and taking pro-active actions to improve land use, e.g. by the MP.
Output 3 Indicator 3-1	Suco regulations for CB-NRM are formulated in all Sucos in the Project Sites.	Suco regulations for CB-NRM are formulated in <u>Sucos, where CB-NRM mechanism has been implemented.</u> [Ver.01]	The modification was made due to the fact that the Project was not designed to introduce the CB-NRM mechanism into all villages in the target watersheds.
Output 3 Indicator 3-2	At least XX key operational actors are trained by the Project through implementation of CB-NRM mechanism as OJT.	At least <u>30</u> key operational actors are trained by the Project through implementation of CB-NRM mechanism as OJT [Ver.02]	Through Sub-activity [2-2], it was found that about 30 DPs/NGOs engaged in forest and watershed management sector. It was expected that 20 out of them could show interest in CB-NRM mechanism. Assuming that 1 or 2 actors (1.5 actor/organization on average) would join the OJT from each organization, the Project set the target number at 30.
Activity 1-4	Nil/ Newly added.	1-4: Analyze detailed information on high priority watersheds in order to assist MAF in formulating the implementation plan of the CB-NRM roadmap, using external funds [Ver.04]	The addition was needed for the Project to develop the FP to GCF with the aim of assuring the implementation of the roadmap in the coming future.
Activity 1-6	Nil/ Newly added.	1-6: Assist MAF in preparing for the implementation of the CB-NRM roadmap, using external fund [Ver.05]	The addition was needed for the Project to carry out preparatory works for the implementation of the JICA GCF Project.
Important Assumption	Nil/ Newly added.	The actors trained by the Project are contracted / assigned by MAF or development partners for the expansion of CB-NRM mechanism. [Ver.03]	The addition was made to reinforce the linkage between Project Purpose and Overall Goal.

Note: *The final version of the roadmap, which was officially approved by DGFCIP MAF, indicates 2031 as the final target year of the achievement. ** The certificate shows the title of the holder as "CB-NRM technical coordinator", which was considered by NDFWMAM as a more appropriate name than "CB-NRM Promotor".

3. Results of Joint Review

The Project has prepared the monitoring sheets on a semi-annual basis, with which the CP officials and JICA experts conducted joint reviews. The results of reviews are summarized below.

3.1. Results of Review based on DAC Evaluation Criteria

The Project is evaluated in terms of relevance, effectiveness, impact, efficiency, and sustainability according to DAC²³ evaluation criteria. The results are presented with reasons.

3.1.1. Relevance

Relevance is considered “very high” from the following reasons.

(1) Relevance to the development plans and needs of Timor-Leste

- Forest Law enacted in December 2017 recognizes the right for community’s traditional forest use and management for its achievement in Article 5, while addressing the importance of sustainable forest management in Article 6. It also designates, in Article 9, “the support to communities for setting regulations on forest and watershed management” as an important policy for promoting sustainable forest conservation and management. The CB-NRM mechanism coincides with this concept and approach through formulation and implementation of suco regulations, and hence can be an effective option for materializing the ideal of the law on the ground.
- Forest Sector Policy revised in May 2017 sets its goal, which is to conserve not less than 70 % of forest areas by 2030. And it identifies PLUP and other community-initiative forestry activities as an effective measure for forest and watershed management as well as forest and land restorations. It is thus well acknowledged that the CB-NRM mechanism is an approach to practice them at community level. And the CB-NRM roadmap is officially recognized as an indispensable means to attain the policy goal.
- MAF Strategic Plan 2021-2025 specifies its promotion of CB-NRM through the application of CB-NRM mechanism developed by the Project (especially, PLUP) under the program of sustainable natural resource management, use and conservation. This commitment demonstrates the relevance of the Project not only to the national law and policies but the ministry’s strategy to the sector development.

(2) Relevance to development cooperation policy of the government of Japan and JICA

- Development Cooperation Charter established by the government of Japan in 2015 places a priority in contributing to poverty reduction and joint efforts by international communities against global challenges including environmental issues and climate change. It also recognizes the importance of “quality growth,” which puts an emphasis on harmony with environment, sustainable socioeconomic growth, and the issue of global warming as well as resiliency to withstand and

²³ Development Assistance Committee

recover from natural disasters and other shocks. The CB-NRM mechanism precisely aims at strengthening community's resilience to climate change and natural disasters and promoting the use of forest resources and economic activities in a sustainable manner. In addition, the application of GCF to the implementation of roadmap for expanding CB-NRM mechanism ensures active participation in the international efforts on climate change. This is also in line with the development cooperation policy of Japan.

- The Project is expected to contribute to the program of promoting diversification of industries under Japan's development cooperation policy for Timor-Leste. The program aims at diversifying the economy away from dependence on oil and natural gas through the development of agriculture and sustainable use of forest resources. The Project rendered MPs, which enabled communities to enjoy i) sustainable upland farming techniques for maize production, ii) seedling production and tree planting including fruit and cacao trees for future income generation, and iii) small-scale business development for livelihood improvement. As such, the Project made substantial contributions to achievement of the objectives of the program.

(3) Relevance to international framework on climate change

- The CB-NRM mechanism directly contributes to forest conservation, thus reducing CO₂ emission through curbing deforestation and forest degradation. It also mitigates community's vulnerability to climate change through technical transfer of upland farming and livelihood development as well as support for seedling production of tree species under MPs. Japan has ratified United Nations Framework Convention on Climate Change (UNFCCC) and committed to the responsibility for climate change mitigation and adaptation not only in the country but in developing countries; thus, the Project represents this commitment.
- It was officially approved that a part of the roadmap formulated by the Project would be implemented with GCF. This approval is a proof that the project activities have been recognized as effective measures on climate change in the international framework.

3.1.2. Effectiveness

Effectiveness is considered "high" from the following perspectives.

- As stated in Section 2.2.2, the Project Purpose, "Capacities of key operational actors including NDFWMAM, NGOs and other stakeholders to expand the CB-NRM mechanism are enhanced," has been satisfactorily achieved.
- As for Output 1, the Project formulated the roadmap, which directly contributes to the implementation of Forest Law, Forest Sector Policy and MAF Strategic Plan (2021-2025). Thus, the Project achieved the output, as initially targeted. In addition, the Project paved the way for the implementation of the roadmap with GCF in the project period, which is the achievement well over the initial plan.

- Regarding Output 2, the Project supported the DP and NGO coordination meetings arranged by DGFCIP, continuously sharing the information on CB-NRM implementation and expansion. As initially planned, the enabling environment for the promotion of the CB-NRM mechanism was developed through having regular coordination meetings. Furthermore, the Project made the best use of the DP/NGO network to make other stakeholders apply the CB-NRM mechanism: it provided technical advice through individual consultations, while facilitating matching between DPs and local NGOs for carrying out CB-NRM activities. By setting up actual cooperation among stakeholders, the Project further promoted the implementation of the roadmap.
- Under Output 3, the Project developed the capacities of field staff of DPs and NGOs and technical officers of CP agencies (NDFWMAM and Aileu/ Dili municipality) with capacity assessment and qualification system. This system enabled not only for OJT participants to gain the sense of achievement but also for stakeholders to recognize the human resource pool. In fact, half of OJT participants engaged in CB-NRM activities out of the scope of the Project. At community level, the Project succeeded in preventing the cases of forest fires and illegal tree cutting and promoted collective efforts for NRM with the introduction of CB-NRM mechanism. The Project could also bring actual benefits of the CB-NRM mechanism to communities through increased/stable maize production, and seedling production and tree planting of species for future income generation.
- Overall, the Project realized tangible benefits at community level and has laid the groundwork for nationwide expansion of CB-NRM mechanism through the cooperation with DPs and NGOs as well as capacity development of key operating actors. As the achievement of Outputs was closely interlinked to that of Project Purpose, and individual Outputs are successfully achieved with the fulfilment of their Objectively Verifiable Indicators, the effectiveness of the Project is considered sufficiently high.

3.1.3. Impact

Impact is considered “high” based on the following reasons.

- As stated above, the Project succeeded in creating a positive perspective of achieving its Overall Goal Indicator, i.e., the implementation of the CB-NRM mechanism in the 14 watersheds by 2030, within the implementation period. Approximately 160 villages in 12 watersheds have introduced or planned to introduce CB-NRM activities especially PLUP (See the details for Section 4.1 of Chapter 4 below.) The factors of promoting this trend include MAF’s promotion to DPs, DP’s understanding on the effectiveness of CB-NRM mechanism, the revision of the mechanism (e.g., introduction of PLUP/CCVA integration) to meet needs of other DPs, capacity development of key actors engaged in the field operations as well as their conceivable outputs. Overall, the continuous endeavors made by the Project and Phase I is considered to bring about this visible impact.
- As described under sub-activity [1-4-2], Forest Sector Policy adopted the fundamental concept of CB-NRM mechanism that PLUP and suco regulations surely do function as an effective means and approach for forest conservation. In this regard, the Project made an impact on policy formulation.

- Furthermore, the Project conducted an impact analysis under sub-activity [1-4-2] and confirmed the effectiveness of CB-NRM mechanism in preventing forest degradation and in reducing CO₂ emission. In the villages where CB-NRM mechanism was introduced (Faturasa and Fadabloco villages supported by Phase I), more dense forests have been protected since the introduction (2013-2017) compared to the villages (Fahisoi L and Fahisoi R) where the mechanism was not introduced in the same period. (See the figure on the right.) In other words, it is reconfirmed that the implementation and expansion of CB-NRM mechanism actually contribute to the objective of Forest Sector Policy, i.e. protecting 70% of forest areas by 2030. Thus, the impact generated by the Project and its Phase I is considerably high with significant contribution to the achievement of policy objectives. The impact is more intensified, if one takes into consideration that a part of the CB-NRM roadmap will be implemented with GCF in the coming futures.

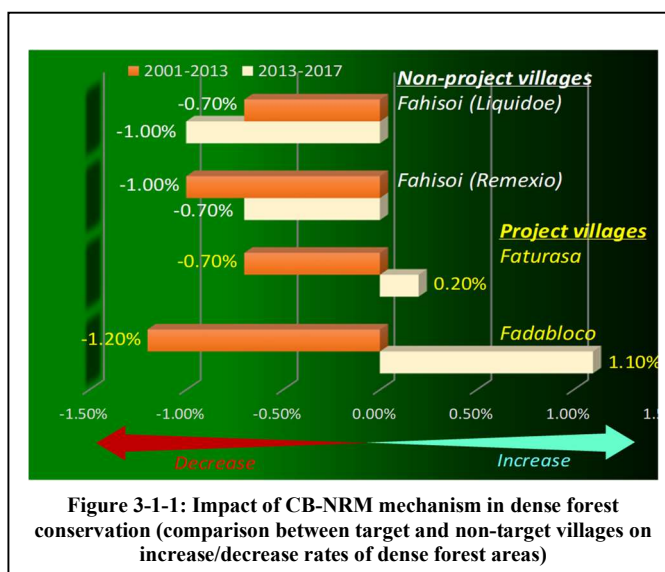


Figure 3-1-1: Impact of CB-NRM mechanism in dense forest conservation (comparison between target and non-target villages on increase/decrease rates of dense forest areas)

3.1.4. Efficiency

Efficiency is considered “moderate” from the following reasons.

- Prior to the spread of COVID-19, the timing of input to project activities and implementation schedule had been well followed, as originally planned. And all project activities were expected to complete within a set period.
- Under the COVID-19 pandemic, however, JICA experts could not visit Timor-Leste and were forced to continue operating activities while staying in Japan. It became difficult to maintain regular communication with the CP officials and DPs and conduct field monitoring. Compared to the initial plan, there were suspensions or delays e.g., on consultation and approval process of roadmap formulation for Output 1, DP coordination meetings for Output 2 and the implementation of field activities with OJT for Output 3, which after all rendered the project period extended. Under such circumstances, JICA experts made efforts for minimizing negative impacts by holding online meetings with individuals and organizations as well as hybrid conferences (connecting the conference venue with online participants) and arrangement of pinpoint field visits when the movement restrictions were temporarily lifted. In addition, CP officials and the project national staff proceeded with activities in close communication with JICA experts, where/when possible. As a result, objectives and outputs were achieved as initially planned, which was surely owing to the effective remote operation from Japan and initiatives of CP officials and national project staff.

3.1.5. Sustainability

Sustainability is considered “moderate” based on the following reasons.

- From policy and institutional aspects, there were some factors contributing to sustainability: i) PLUP was identified as an effective means; ii) the roadmap and policy recommendations were approved by the DGFCIP, and iii) the JICA GCF project was approved to undertake a part of the CB-NRM roadmap. In addition to these factors, there was the positive observation on the initiatives of MAF in internalizing the CB-NRM matters into their normal duties: NDFWMAM has regularly secured the budget for the villages to continue NRM monitoring and upscale technical demonstration on upland farming even after the project interventions. Such a government effort of maintaining and extending the CB-NRM mechanism arguably presents the sustainability of project outputs.
- For full institutionalization of the CB-NRM mechanism in the government system, however, it is critical that the government should i) issue the ministerial order, which enables to appropriate necessary budgets for the nationwide expansion and ii) designate PLUP as an official tool for planning municipal and village development plans. Although such institutional developments might be hard to achieve in a short term, it is essential that DGFCIP in collaboration with JICA experts continuously address its significance to the concerned government authorities, even in the upcoming JICA GCF project, which has the component of development of legislative framework for CB-NRM.
- From the technical and human resource aspects, the key operational actors (NGO/DP) who participated in the OJT developed their capacity for facilitating PLUP and hands-on training e.g., on upland farming and seedling production and tree planting. As for the CP officials, the OJT participants obtained the capacity for supervising and coordinating activities related to the CB-NRM mechanism. In view of wider expansion of CB-NRM mechanism in the near future, however, the number of capable officers is still limited, as OJT was offered only to some officials of NDFWMAM and Aileu/ Dili Municipality. Therefore, it is important to preferentially recruit and assign the OJT participants (DP, NGO, and CP officers) into the activities of the CB-NRM mechanism. At the same time, sustained and large-scale capacity development should be undertaken to increase operational actors, so as to cover larger geographical areas in the country.

3.2. Key Factors affecting Implementation and Outcomes

This section describes the external conditions specified in the PDM, which particularly affected the implementation of the project activities. The measures taken by the Project against these negative influences are articulated in the next section.

External condition: Basic laws and regulations related to land, forest and decentralization do not contradict or hamper the Project implementation.

Along with the decentralization in the county, Administration Office of Aileu Municipality, where the target villages were located, published Tara Bandu regulations for all villages within the municipality (October 2016). Behind this publication was the intention of applying “one-size-fits-all” regulations, eradicating the difference in rules and penalties among villages. However, this approach seemed different from the CB-NRM mechanism, in that PLUP was aimed at the formulation of regulations by community’s initiatives. The stakeholders, who observed the enforcement of municipal regulations, raised questions on the need to have the CB-NRM mechanism that helped communities in formulating their own suco regulations.

External condition: There is no unprecedented conflict among the local residents in the Project Sites that hampers the implementation of the CB-NRM activities.

In March 2020, the President of the Republic decreed the state of emergency, facing the spread of the COVID-19, and the government subsequently set restrictions on movement and security measures until November 2021. The measures taken by the government included the temporary restrictions on the entrance of foreigners to the country, prohibition of meeting with a large number of people, inter-municipal movement, and blockade of cities. As described in Section 3.1.4 on Efficiency, the Project was forced to suspend various meetings with government officials and DPs and field activities especially of NRM monitoring with suco regulations and of MP implementations for the 2nd and 3rd batches.

3.3. Evaluation on the Results of the Project Risk Management

This section delineates how this Project responded to the situations brought by changes in the external conditions.

As regards the promulgation of Tara Bandu regulations made by Aileu Municipality, the Project discussed with the NGOs, which were contracted to facilitate PLUP implementation, and decided to include the review of the Tara Bandu regulations in the workshop of “review of traditional/existing regulations,” so as to maintain consistency between community-based suco regulations prepared in PLUP and the ones set by the municipality. The rationale for making this arrangement was to promote effective use of community-based suco regulations with sufficient consideration and respect to higher-level/municipal rules. The Project then consulted with Aileu Municipality Administration Office on these measures. And given their acknowledgement, the Project could proceed with the formulation of suco regulations and the monitoring on the use of the regulations, as initially planned.

With respect to dealing with the COVID-19 influences, the Project introduced online meetings to avoid physical face-to-face communication. In addition to this, in consultation with the contracted NGOs, the Project devised the ways to carry out activities diligently in accordance with the intentions and circumstances of the community. Whilst the JICA experts were forced to stay in Japan, the CP (NDFWMAM) made frequent visits to the target villages with its own budget and provided monitoring

and follow-up supports on the CB-NRM mechanism. On the other hand, the JICA experts in Japan devoted themselves to the formulation of FP to GCF, which could be undertaken even without travelling to Timor-Leste. Although there was no denying of negative impacts of COVID-19, the time of staying in Japan was effectively utilized to bring investment in the future implementation of the roadmap.

3.4. Lessons Learnt

The Project gained the following lessons learnt from the implementation.

MAF-JICA joint teamwork created, which brought significant impacts on the expansion of the CB-NRM mechanism

The Project is JICA's technical cooperation, through which JICA experts have worked closely with the CPs of MAF in undertaking a series of activities. This modality of joint work is often deemed "inefficient" in terms of making progress of implementation, as compared to the work done by initiatives of external consultants, because it requires more time and resources to obtain mutual understanding and consensus between the two parties. However, there were some advantages in making the project successful and sustainable. For example, co-working could easily create common understanding and knowledge among the members involved, including the high-level officials such as DG and NDs. Once they recognized the effectiveness of the CB-NRM mechanism, then, they could convince other DPs to follow the practice of the Project, thus contributing to the expansion of the mechanism. In this way of promotion, the application of the CB-NRM activities by other DPs rose even during Phase I and were further enhanced by this Project (Phase II). At present, not only do high-level officials, but also technical officers incorporate the knowledge of the CB-NRM mechanism into other duties or other DPs' projects. Another advantage of the joint work is association of the Project with the development of legislative and policy framework, which are essential tasks to be undertaken by the government officials. The JICA experts were provided by their CPs various opportunities to work for it, making alignment of the project outputs with the government priorities. Reflection of the CB-NRM elements in Forestry Sector Policy is amongst others demonstrating this benefit. Furthermore, the joint work could create the government initiatives to continue and sustain the project activities. Given the limitation of resources, it may be difficult for MAF to formulate and implement a new large-scale project to expand the CB-NRM mechanism; yet the follow-up after this Project is feasible both financially and technically. In fact, NDFWMAM secured budgets and conducted the follow-up activities to the villages after the project intervention, which reveals one of the ways of collaboration between DPs and the government to secure sustainability.

Importance of accessing external funds

In general, many DP projects, including JICA's, are time or area-bounded, leaving to the government the task of implementing and disseminating plans or technologies that they have established. This principle had been applied to this Project as well, as its original aim was to formulate the roadmap, leaving its implementation with MAF. There was still concern, however, over the materialization of the roadmap by MAF even with DP's assistance. The JICA experts then made consultation with JICA and

DGFCIP on the application of a project to GCF to assure, at least, a part of the roadmap for implementation, which could contribute to creating impacts and sustainability of this Project. It was agreed by both entities to develop the FP, which was, after a series of revision and interaction with the GCF side, finally approved by the General Board. Accessing GCF had not been assumed in the original work plan of the Project but was indispensable for the Project to pave the way for future implementation of the roadmap with substantial resources.

Difficulty in development of facilitation skills on CB-NRM techniques (especially for PLUP)

The Project provided various actors of DPs and NGOs with OJT, through which they were engaged in the actual facilitation and guidance to assist the community in establishing the CB-NRM mechanism at the target villages. The philosophy behind this OJT was our understanding that such skills of facilitation and guidance for communities by no means could be acquired with lecture-type training but rather with actual practices on the ground, namely “learning by doing” under the supervision of an experienced expert. For this OJT, the Project selected the NGOs that had sufficient experience of implementing the CB-NRM mechanism as trainers and made them incorporate field staff from DPs/ other NGOs as a member of the facilitation team, so that they could learn necessary skills by doing together with experts. There is no denying of the effectiveness of this modality of training, especially for actors who did not have practical and systematic knowledge on NRM, agriculture and forestry. Yet there were some difficulties encountered in the implementation. For example, the OJT required long-time engagement, at least 3- 4 months, under the supervision of a few experts, which limited the number of participants. There was also instability of the employment in the labor market of NGO workers: some participants, after gaining skills and knowledge from the OJT, changed their position or occupation to seek better working opportunities, although they were supposed to feedback knowledge to their mother institutions and implement CB-NRM activities with their colleagues. Fluctuation of practices was also observed at the employer’s side: some DPs cancelled the plan of conducting PLUP due to budget conditions, while local NGOs faced difficulties to obtain the contract of a CB-NRM project from DPs due to its insufficient management capacities. Against these matters arising, the Project adopted several measures, which were supplemental to the effects of the OJT. They included i) the strict selection of OJT participants with focus on DP/NGO that have a concrete plan and budget for CB-NRM/ PLUP implementation, ii) the introduction of CB-NRM facilitators (i.e. participants who completed OJT successfully) to DPs looking for business partners for CB-NRM activities by sharing the list of CB-NRM facilitators, iii) match-making between an intentional NGO and local NGOs and among local NGOs to make a consortium for bidding offered by DPs. All these are efforts to make the best use of limited human resources trained by the OJT for the expansion of the CB-NRM mechanism.

Other lessons learned and practical knowledge

There are a number of lessons learned and practical knowledge relating to specific aspects of the CB-NRM mechanism, which can be summarized in the table below.

Table 3-4-1: Lessons learned and practical knowledge relating to specific aspect of the CB-NRM mechanism

Aspect	Lessons learned and practical knowledge
CB-NRM application by DPs	<p>There are many DPs interested in PLUP, but their supports show variations in terms of implementation cost and scope of the work. Some DPs assist PLUP only for formulation of a future land use plan, while others may support up to the inauguration of suco regulations with Tara Bandu ceremony. In general, however, there is no or little support for monitoring on the enforcement of suco regulations, which could lead to embodying capacities for NRM in suco institution and inducing the change of their behavior. Hence it is critical for DGFCIP to ensure that DPs or the relevant government institutions, which apply PLUP, entail the support for monitoring in their scopes of work.</p> <p>This lesson is certainly relevant to the JICA GCF Project. It may target villages which might receive the support of PLUP from other DPs in the past. In this case, it is needed to confirm what extents of the support that they received previously with confirmation on the current use of the suco regulations and provide complementary elements to communities to make their previous efforts effective.</p>
Suco regulations and monthly monitoring	<p>When it comes to penalty setting in formulation of suco regulations, it is often considered that a higher the fine can bring a greater power of enforcement. It is not true, however, from practical points of view. The experience reveals that the amount should be within the affordable range of the community's financial capacity; otherwise, people when violating a rule, do not receive any punishment while no one can enforce the payment, which results in reducing momentum for community members to observe the regulations.</p> <p>NRM is just part of the livelihood, and it is not a priority for most of the community members. Therefore, there are doubts about its operational effectiveness and sustainability if the regulations are only concerned with NRM. On the other hand, the social norm, which deals with violence against others including domestic violence and noise, and other illegal acts against individuals and public property are of great interest and needs of the community. By incorporating these into suco regulations, it is possible to increase the motivation of the community to operate them.</p> <p>For forest fires, which are one of the major causes of forest degradation, there are many cases where no violator/criminal could be found. In that case, it is important for external supporters such as the government and NGOs to provide advice and coordination to find other solutions/alternatives (for instance, tree planting in the damaged area).</p> <p>In monthly monitoring, cases are sometimes reported as unresolved. It is then crucial to prevent the community from leaving the unsolved cases as they are, rather to facilitate them in continuing discussion until finding out any solution or mitigation measures. To realize this, it may be effective to introduce case-tracking system, e.g., by assigning the case number to each report or by including the update on "carry-over" cases in the agenda of the monthly monitoring meeting.</p> <p>To ensure sustainable operation of suco regulations, it is important to confirm whether the information and technical transfer on suco regulations have been carried out when the village leaders are replaced. If new leaders do not understand the content and importance of suco regulations, it is also effective to carry out refresh training e.g., through follow-up activities by MAF.</p>
DP coordination meeting	<p>The DP coordination meeting has not been regularly held as before due to the influence of COVID-19. In the future, it is expected to resume but depends on the situation. For the time being, it is realistic to assume that it may be used in combination with online tools. As far as DP coordination meetings are concerned, the Project was engaged in network formation with the theme of "forest and watershed management," without specifying on CB-NRM, so as to attract interest of many DPs and NGOs. Through the activities of the Project, however, multiple DPs and NGOs have introduced PLUP in their activities. In the future, topics and participants should be narrowed down to the CB-NRM mechanism and the modality of the meeting should be on a demand basis rather than on a regular basis. Incidentally, when setting up a physical meeting, it is desirable to share the burden of arrangements by taking turns on the role of secretariat among stakeholders.</p>
MP	<p>In the MP for sustainable upland farming, some villages and groups may set up demonstration fields in abandoned land. In many cases, it is a land where nutrient leached and the runoff of topsoil progressed, and the lower layers of soil become exposed, being acidified. Therefore, before the cultivation, it is necessary to confirm whether the site is suitable for cultivation of maize etc. To confirm the soil acidity, it is effective to carry out a pH test of the topsoil with the cooperation of the NDSRGI, MAF (it could be easily estimated by observing the overgrowth of indicator plants such as fern plants). The Project identified that the soil tends to be acidic and tried application of lime (often called Ahu) along with the compost to neutralize the pH.</p> <p>Regarding the MP for improving income generating/livelihood development, the decrease in foreigners' demand (demand from restaurants and hotels) due to the COVID-19 pandemic should be taken into consideration. In some cases, it may be more beneficial for communities to learn how to preserve foods,</p>

Aspect	Lessons learned and practical knowledge
	<p>which could reduce living expenses than to sell something and earn cash. As for mushroom cultivation, it is necessary to cultivate mother spawns to ensure sustainability, which is often difficult for the community. In addition, it is necessary to prepare a cultivation environment that prevents germs from entering with careful awareness and commitment of the community, including for initial investment in facilities and materials. Since there is a business group that cultivates mother spawns in Ermera Municipality, it could be effective to cooperate with them to obtain materials and technical support for mushroom cultivation.</p>
<p>Application to GCF</p>	<p>For the application to GCF, it is necessary to categorize a proposed project into one of the three types, "mitigation", "adaptation" or "cross-cutting". The proposal of an adaptation project requires the immense of data on future projections of climate change not only at national level, but also at local level. In the case of Timor-Leste, there is lack of the detailed data not only on meteorology but also on agricultural production (e.g. productivity at municipal level and possible yield change under different environments and cultivation practice); thus, it was difficult to set the future scenario to evaluate the effect of the intervention. For future project formation, the Government of Timor-Leste needs to continuously accumulate basic data on meteorology and hydrology and establish the database on agricultural and forestry research, which will contribute to future impact prediction. In addition, since similar data is required for GCF and other international funds, it is critical that NDA or NDCC play a central role in developing a portal site that integrates the information from different GCF projects, climate change-related research reports, and case study reports conducted by DPs while allowing access to the satellite images.</p>

4. For the Achievement of Overall Goal after the Project Completion

4.1. Prospects to achieve Overall Goal

As the table and figure below show, the roadmap covers 317 villages in the 14 priority watersheds. (It should be noted that as several villages overlap in multiple watersheds, the cumulative number of villages is 393). Amongst them, 84 villages have already implemented the CB-NRM mechanism, especially PLUP, with the assistance of JICA CB-NRM Projects (including Phase I) and other DP projects such as WB-SAPIP, which supports the western area of the country, and EU-PSAF which supports the central and western areas. In addition, the upcoming JICA GCF project will introduce the CB-NRM mechanism into 74 villages (92 in cumulative total). With these numbers combined, it can be confirmed that the CB-NRM mechanism will be extended in approximately 160 villages, which occupies a half of the total 317 villages targeted by the roadmap.

Table 4-1-1: Deployment of the CB-NRM mechanism in the 14 priority watersheds

Unit: Number of villages

Region	Priority watershed	No. of village	WB-supported SAPIP	EU-supported PSAF	JICA**	Other DP project	JICA GCF project	Remaining village
Western	Tono	16	6	0	0	0	0	10
	Tafara	17	0	0	0	1	10	6
	Comoro	26	0	0	6	1	16	3
	Lois	107	18	0	0	0	0	89
	Be Lulic	20	12	0	0	0	0	8
Central	Laclo	65	2	1	11	5	40	6
	Caraulun	35	4	0	0	1	26	4
	Quelan	4	0	0	0	0	0	4
	Sahen	15	0	5	0	1	0	9
	Dilor	10	0	3	0	2	0	5
Eastern	Cuha	10	0	0	0	0	0	10
	Seisal	36	0	4	0	6	0	26
	Irabere	23	2	5	0	3	0	13
	Iralaloro/Vero	9	0	1	0	0	0	8
Cumulative total		393	44	19	17	20	92	201
Net total**		317	84				74	159

Note: * The Project and Phase I; ** Several villages overlap in 2 watersheds, and the net total shows the numbers with duplications removed.

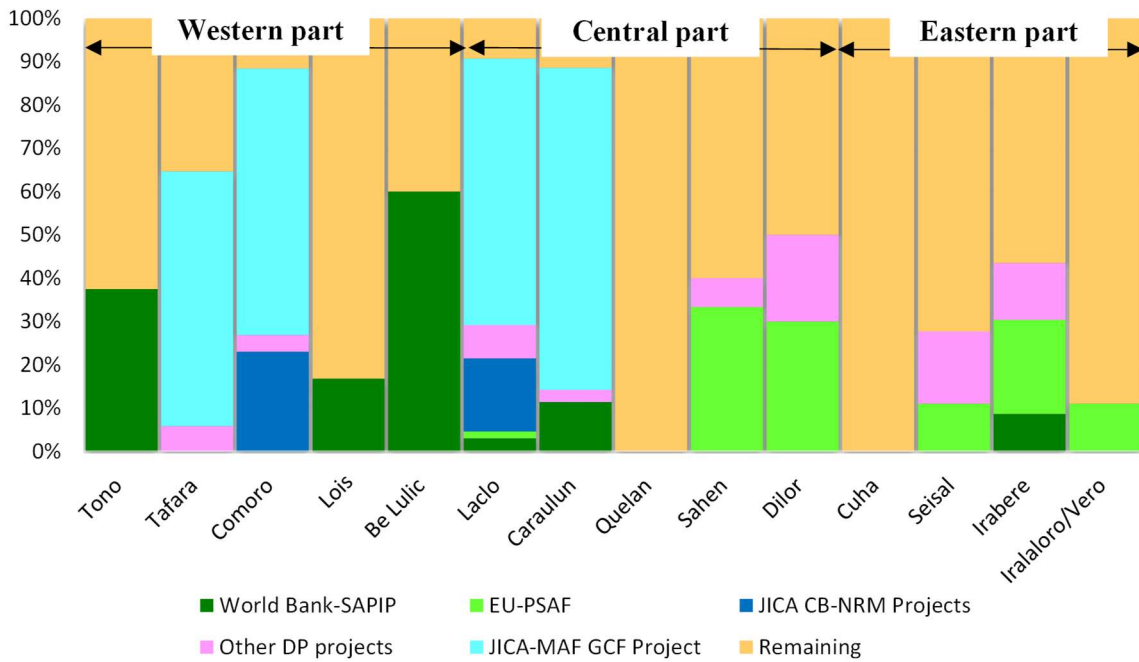


Figure 4-1-1: Coverage of the CB-NRM mechanism in the 14 priority watersheds (coverage rate by project)

Yet, it is too early to conclude that the overall goal of the Project would be easily achieved. To realize tangible impacts in the priority watersheds, the remaining villages or at least majority of them are expected to undertake the CB-NRM mechanism. For this purpose, the CB-NRM mechanism should be further promoted with additional DP projects, following the JICA GCF project. Similar endeavors should be made by the government too, which could implement the CB-NRM mechanism as one of MAF’s priority policies or as part of Strategic Plans made by municipalities. To realize this, a greater initiative of the government, especially DGFCIP, MAF, will be indispensable.

4.2. Plan of Operation and Arrangement for Timor-Leste side to achieve Overall Goal

This section presents the plan of operation (implementation schedule) and arrangement for the CB-NRM roadmap, which is a solely dependable instrument to achieve the overall goal of the Project.

(1) Implementation Schedule

Implementation schedule of the roadmap is shown in the table below. Component 1 (expansion of the CB-NRM mechanism) and Component 2 (development of watershed management mechanism) are planned to start at the initial stage of the implementation, whereas Component 3 (CF introduction) is scheduled in the latter half of the period. Component 4 (public awareness raising) and Component 5 (institutional and capacity development), which support field-level activities, will be undertaken as regular work from the beginning. The baseline survey, interim review and final evaluation are scheduled under Component 6 (program management and M&E).

Table 4-2-1: Roadmap implementation schedule

Component/Sub-component	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
1. Expansion of the CB-NRM Mechanism										
1.1 Introduction of PLUP										
1.2 Implementation of Micro Programs										
1.3 Institutionalization of Village Regulations										
2. Development of Watershed Management Mechanism										
2.1 Formation of Watershed Management Councils										
2.2 Operationalization of Watershed Management Councils										
2.3 Development of Watershed Management plans										
3. Implementation of CF and Promotion of SFM										
3.1 Introduction of Community Forestry										
3.2 Formulation of Forest Management Plan										
3.3 Introduction of Improved Forest Management and Silviculture Practices										
4. Public Awareness Raising										
4.1 Public Awareness Raising in the General Public										
4.2 Knowledge Sharing among Key Stakeholders										
5. Institutional and Capacity Development										
5.1 Organizational and Institutional Development										
5.2 Human Resource Development										
6. Program Management and M&E										
6.1 Program Management										
6.2 Periodic Monitoring and Evaluation										

(2) Implementation arrangement

The implementation arrangement of the roadmap is illustrated in the figure below. At central level, DGFCIP and its NDs are the main actors responsible for operation and management. At municipal level, under the supervision of MAO, Agricultural Service Department is the major actor in field operation and monitoring, implementing the CB-NRM mechanism with the support of external agencies such as NGOs: PLUP and MP will be supported at villages while the establishment and management of WMC supported at PA level. In JICA-GCF project, they will establish the Central Steering Committee, for which the Minister of MAF and Chief Representative of JICA Timor-Leste Office will co-chair.

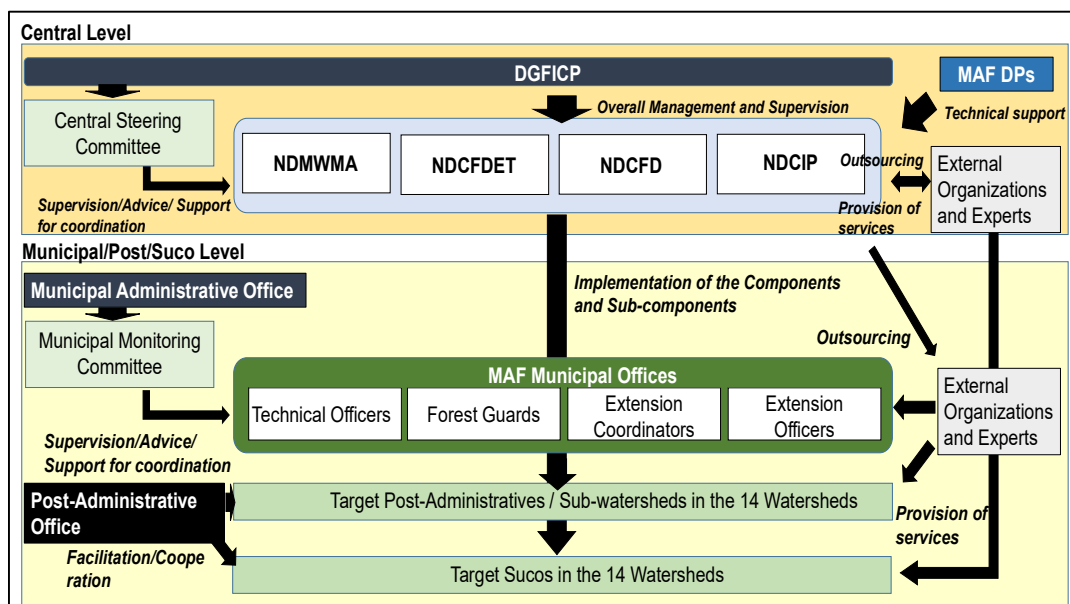


Figure 4-2-1: Implementation arrangement of the roadmap

4.3. Recommendations

This section provides recommendations for MAF to sustain and expand the CB-NRM mechanism as well as for JICA to implement the GCF project, with reference to the policy recommendations formulated by the Project. The recommendations can be organized in the three pillars, namely, for i) effective implementation of the JICA GCF Project, ii) formulation of a new DP project, and iii) mainstreaming the CB-NRM mechanism/ PLUP into the municipal development planning regime. All and each of the recommendations are made from the perspective of how to draw resources of Timor-Leste government and DPs, including international funds, to the implementation of the roadmap.

(1) Recommendations for effective implementation of the JICA GCF Project

The JICA GCF Project will be launched in 2022 as a pilot of the roadmap. The successful implementation of this pilot must attract attentions of many stakeholders, be it of the government and DPs, which may consequently invite their “investments” for further implementation of the roadmap. To realize this, the Project provides the following recommendations.

To make the best use of CB-NRM facilitators/technical coordinators developed by the Project

The JICA GCF Project is required to mobilize a large number of facilitators to cover a wide range of area, around 70 villages in the 4 watersheds. The modality of field work e.g., PLUP and MP, will be contracting to NGOs that have the sound financial management capacities, probably international NGOs. However, they may be lack of local facilitators possessing the experience of CB-NRM mechanism, while the Project trained the field officers of local NGOs as the CB-NRM facilitators. Thus, there is an institutional dichotomy having i) NGOs to be contracted on one hand and ii) NGOs with skilled facilitators on the other hand. In order to offset the gap of human resources, it is important for JICA, in selection of NGOs to be contracted, to stipulate the condition of “assigning facilitators having the experience of conducting the CB-NRM mechanism” as one of compulsory requirements for undertaking the task. In addition to this, it would be recommendable to facilitate matching between the CB-NRM facilitators and potential NGOs by sharing the list of the CB-NRM facilitators among stakeholders.

Effective utilization of human resources is crucial even at the government level, too. The JICA GCF Project will extend its supports to 7 municipalities, namely Aileu, Ainaro, Covalima, Ermera, Liquica, Manatuto, and Manufahi, out of which only Aileu municipality have the experienced officers that were qualified as CB-NRM technical coordinators. Most of technical officers in the 6 municipalities are yet to understand what/ how parts of the CB-NRM mechanism. Facing this situation, it is critically needed for MAF to make the best use of the CB-NRM technical coordinators at DGFCIP and Aileu municipality, e.g., by dispatching them as trainers for other municipality officers and assigning them as core members of CPMT for the JICA GCF Project.

To involve municipalities and PA in conducting PLUP and WMC management

The JICA GCF Project is much larger than this Project in terms of scale, scope, and budgets. It may require a different modality of work from this Project, in which the JICA experts and their CPs grasped

details of the target communities and hence could provide tailor-made technical services according to their needs. For the development of a new modality, careful consideration should be given to the ongoing decentralization process, which authorizes municipalities (and PA) to govern their territory with supervision of villages. The interventions in villages by the JICA GCF Project should be in line with this institutional framework in order to assure sustainability. The municipalities and PA are still under development and yet to undertake the whole tasks of PLUP and WMC management, but it is of critical importance to establish co-working system, which contributes to developing their understanding on CB-NRM and capacities for conducting the necessary tasks such as technical guidance to the formulation of suco regulations and the supervision of NRM monitoring.

To begin with, the JICA GCF Project is advised to conduct training for municipal and PA stakeholders on PLUP at the inception of implementation. Training topics could cover how to carry out progress monitoring of PLUP, confirm contents of suco regulations, and make reports on the results of monthly monitoring by villages. The inclusion of these tasks in TOR for MPMT is necessary to make involvement of municipality and PA officials more practical. Since the JICA GCF Project is to institutionalize WMC management as part of duties of PA, it is also important to build their awareness and understanding on the need for this institutionalization at this early stage. As such, initial and gradual efforts must be made to internalize PLUP and WMC activities in the local government system, which consequently provides the basis for sustainability of future interventions.

To make the best mix of MAF co-financing budgets and in-kind contribution with the JICA GCF Project

For the JICA GCF Project, there are co-financing budgets, including in-kind contribution, to be provided by DGFCIP. It is of essential importance for the JICA GCF Project to make the best mix of this co-financing with GCF resources for comprehensive and effective implementation. For 2022, it is only NDFWMAM that has secured the budget for the CB-NRM activities and therefore more efforts will be needed with the involvement of other NDs under DGFCIP for resource mobilization. Through operation in 2022, DGFCIP and its NDs could identify which kinds of activities contribute to the JICA GCF Project. For instance, if the budget is appropriated for field visits by high-level officials of MAF and other ministries, it would be effective to relate such activities to the CB-NRM issues, which could deepen their understanding on the effects of the CB-NRM mechanism and then make them influence over other DPs' project and policy framework. Another deliberation for the best mix comes from steady budget allocation to distribution of agricultural / forestry materials e.g. seeds and seedling, over the past years. This material support could be combined with the interventions of MP: for example, it will provide inputs to households who are not supported by the MP but live in the same village. Thus, the co-financing component has potential to enhance the effects of the supports rendered by the JICA GCF Project.

(2) Recommendations for the following DP cooperation after JICA GCF project

As stated above, the JICA GCF project is part of the roadmap: it cannot cover the whole scope of the roadmap. Therefore, it is necessary for DGFCIP to explore potential DP supports for the further implementation, following the JICA GCF project. For this purpose, two recommendations are made as below.

Identification of DP projects in the pipeline with promotion of the CB-NRM mechanism

DGFCIP is at the center of network in the sector of forest and watershed management, holding close connections with various DPs and NGOs. They come to DGFCIP for consultation when formulating a new project and DGFCIP provides them with advice /inputs by informing what are needed as the government priorities. In other words, it is a focal point receiving information on a new project while disseminating a signal on needs. The function of DGFCIP will become more critical, if the ministerial order drafted by the Project is officially endorsed, as it assigns DGFCIP as the responsible entity for operationalization of the order. DGFCIP, while implementing the JICA GCF Project, is required to consolidate resources of DPs for the roadmap implementation. The Project therefore recommends DGFCIP to start, even from now on, necessary preparations of formulating a new project on CB-NRM. For instance, it could conduct an inventory survey of DP projects in the pipeline to examine the possibility of including the CB-NRM activities and then consult with DPs for the materialization. For this consultation, substantial reference should be made to the roadmap and the ministerial order on its implementation, which could provide evidence that the CB-NRM mechanism is one of the government priorities. The JICA experts for the GCF Project, as required by DGFCIP, provide technical advice on the selection of target watersheds and villages for new DP projects as well as methods of how to apply the CB-NRM activities in their project activities. They could help DGFCIP formulate a new project in accordance with the roadmap. With such initiatives of DGFCIP, the roadmap can be truly instrumental in achieving the goal of Forest Sector Policy.

Applications to international organizations such as GEF²⁴ and AFoCO²⁵ for projects on CB-NRM promotion

In addition to the formulation of DP assistance to expansion of the CB-NRM mechanism, DGFCIP is recommended to propose a project to international entities such as GEF and AFoCO.

Based on the experience of GCF application, it can be expected that the formulation of a new project would take substantial time and energy, from starting with data collection for documentation until completing the project appraisal. The experience also reveals that tremendous efforts should be required to establish sound rationales for a project formulation, given the little availability of basic data in Timor-Leste. To make the application process efficient and effective, it is prerequisite to accumulate i) essential statistics (e.g., on changes in forest areas by municipality and by forest types, the size of

²⁴ Global Environment Facility

²⁵ Asian Forest Cooperation Organization: an intergovernmental organization led by Korea with ASEAN countries for forest cooperation. AFoCO plans to implement an agroforestry project in Timor-Leste.

reforestation/afforestation areas with their survival rates, and suitable tree species for planting by municipality) and ii) analytical results on driving factors for deforestation and forest degradation (e.g. the size of areas burnt by forest fire or damaged with soil erosion, the number of cases of illegal tree cutting). In addition to the establishment of such database, there will also be needs for capacity development in analyzing the data and writing a convincing proposal. Through consultation with various DPs, DGFCIP would be able to identify partners who can support the preparation of a proposal and its application to international funds/ entities.

(3) Recommendations for mainstreaming the CB-NRM mechanism/ PLUP into municipal development planning regime

It is neither the JICA GCF Project nor any DP project that can bring about the fundamental force to achieve the roadmap objectives; rather it is the government, if it employs the CB-NRM mechanism, especially PLUP, as an official tool for development. PLUP has been receiving interests from the government and DPs as an effective method to enable communities to i) deepen the understanding on the issues of land use and NRM and ii) build consensus among the members on such issues. The consensus created in this way can be referred to as Free, Prior and Informed Consent (FPIC), which is prerequisite to making any interventions on agriculture and forestry in rural areas, where people use land and other resources with due respects to traditional customs. It was often, however, overlooked by many development projects, especially those seed-oriented (not need-oriented), focusing excessively on introduction and dissemination of technologies. Now the importance of FPIC is well recognized in the development circle, which holds the argument that PLUP or similar methods must be incorporated in any interventions initiated by the government and by DPs.

In the contemporary policy framework of Timor-Leste, decentralization is on-going, placing municipalities and villages at the center of local governance. The municipality is to formulate a strategic plan, based on which the central government disburses funds. Mainstreaming PLUP as a planning instrument for this local development could build fundamental environment that enables the implementation of the CB-NRM mechanism nationwide. In order to make this happen, the following action should be taken.

To establish the model of formulating Municipality Strategic Plan with PLUP through the pilot trial in the JICA GCF Project

The JICA GCF Project will implement PLUP in many villages. Through the process of the implementation, the progress, and outputs of PLUP are to be monitored in collaboration with MPMT. In addition to this monitoring, it is highly recommendable to explore the way of utilizing PLUP for formulation of Municipality Strategic Plan. PLUP rendered by the JICA GCF Project will produce Future Land Use Plan and CBAP with community initiatives, both of which contribute to enhancement of the quality of Municipality Strategic Plan in terms of i) meeting community needs and ii) strengthening their resilience against climate change. Furthermore, if such a plan is implemented and positively evaluated in bringing about tangible benefits to communities, it will be deemed as a model of

Municipality Strategic Plan, which consequently accelerates mainstreaming PLUP in local development regime in this country.

Attachment 1

Project Design Matrix (PDM)

Project Design Matrix (PDM)

Version 6 (January 2022)

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

Implementation Agency: National Directorate of Forestry and Watershed Management (NDFWM) (*0), Ministry of Agriculture and Fisheries (MAF)

Duration: Five years and a half (5.5 years) from the date of the first dispatch of expert(s)

Project Sites: Comoro watershed and Laclo watershed

Target Group: Personnel of NDFWM, municipal MAF officers, watershed management councils and local residents in the Project Sites, and other facilitating agencies such as NGOs

Super Goal: Community-based sustainable natural resource management is introduced in the major watersheds in Timor-Leste

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions	Achievements	Remarks
<p>Overall Goal: Community-based sustainable natural resource management (CB-NRM) mechanism (*1) is expanded to some of the major watersheds in accordance with the roadmap.</p>	<p>1. The CB-NRM mechanism is implemented in the 14 watersheds in line with the roadmap by 2030</p>	<p>Reports of NDFWM</p>	<p>- There is no drastic change in the policy direction of the Government of Timor-Leste in the forestry and natural resource management sector.</p>		
<p>Project Purpose: Capacities of key operational actors including NDFWM, NGOs and other stakeholders to expand the CB-NRM mechanism are enhanced.</p>	<p>1. The activities in the Project Sites and/or other watersheds are implemented as part of the roadmap. 2. At least 60% of the key operating actors trained by the Project take part in implementation of CB-NRM mechanism in the Project Sites and/or in other watersheds or are qualified as CB-NRM facilitators/promoters (*7). 3. Collective actions for forestry and watershed management are undertaken by communities which have introduced the CB-NRM mechanism by the Project</p>	<p>1. NDFWM records 2. Project records 3. Project records</p>	<p>- Continuous efforts are made by MAF to expand CB-NRM mechanism in line with the roadmap formulated by the Project. - Supports of developing partners continue in watershed management issues. - The actors trained by the Project are contracted / assigned by MAF or development partners for the expansion of CB-NRM mechanism.</p>		
<p>Outputs: 1. The roadmap (*3) for future expansion of the CB-NRM mechanism is formulated.</p>	<p>1-1 The skeleton framework of the roadmap is formulated in alignment with other relevant policies and programs. 1-2 The roadmap is approved by MAF.</p>	<p>1-1 Road map documents 1-2 Official letter of approval</p>	<p>- There is no drastic change in the organizational structures of NDFWM and municipal MAF offices that negatively affects the activities of the Project.</p>		
<p>2. Enabling environment is developed to enhance relevant institutions for expansion of the CB-NRM mechanism.</p>	<p>2-1 A new set of policy recommendations (*4) is formulated based on the results of monitoring on the implementation of the CB-NRM mechanism by NDRWM. 2-2 Meetings/ information exchange activities among stakeholders and key operational actors are regularly held at least biannually through the CB-NRM platform (*5) to promote CB-NRM. 2-3 Lessons learned and good practices gathered through the CB-NRM platform are compiled as reference documents and shared among the members.</p>	<p>2-1 Policy recommendation documents 2-2 Records of the meetings 2-3 Compiled document</p>			

3. Capacities of key operational actors including NDFWM, NGOs and other stakeholders are improved through actual engagement in implementation of the CB-NRM mechanism.	3-1 <i>Suco</i> regulations for CB-NRM are formulated in <i>Sucos</i> , where CB-NRM mechanism has been implemented. (*6) 3-2 At least 30 key operational actors are trained by the Project through implementation of CB-NRM mechanism as On-the-Job Training (OJT).	3-1 Project records 3-2 Project records			
Activities 1-1 Identify issues to be addressed and measures to be taken for further expansion of the CB-NRM mechanism in major watershed in Timor-Leste 1-2 Develop a skeleton framework of the roadmap to expand the CB-NRM mechanism. 1-3 Draft the roadmap to expand the CB-NRM mechanism. 1-4 Analyze detailed information on high priority watersheds in order to assist MAF in formulating the implementation plan of the CB-NRM roadmap, using external funds 1-5 Obtain agreement and official endorsement by MAF on the roadmap. 1-6 Assist MAF in preparing for the implementation of the CBNRM roadmap, using external funds 2-1 Facilitate the set-up of a secretariat in MAF/NDFWM in coordination with existing networks and fora. 2-2 Identify the stakeholders and key operational actors working in the fields relevant to the CB-NRM. 2-3 Assist the CB-NRM platform to sensitize the members of the platform on the CB-NRM mechanism and regularly exchange information and to accumulate lessons learned and good practices. 2-4 Formulate a new set of policy recommendations on further expansion of the CB-NRM mechanism. 3-1 Facilitate the implementation of CB-NRM mechanism in Project Sites, following the manuals developed by the foregoing Project for Community-Based Sustainable Natural Resource Management. 3-2 Facilitate the establishment and operation of watershed management councils in the Project Sites. 3-3 Conduct the OJT for the key operational actors in and outside the Project Sites through the implementation of the CB-NRM mechanism in 3-1 and 3-2 above.	Inputs <u>Japanese Side</u> - Dispatch of Experts a. Chief advisor/CB-NRM mechanism b. Institutional linkage and coordination c. CB-NRM Policy d. Sloping/sustainable upland agriculture e. Livelihood development f. Forest management g. Project Coordinator and other necessary fields - Training of counterpart personnel in Japan and/or the 3 rd country - Machinery, equipment and materials for implementation of CB-NRM and training activities - Operational cost (when needs arise)	<u>Timor-Leste Side</u> - Project Director - Project Manager - Counterpart personnel - Supporting staff - Project Office at NDFWM, MAF - Existing materials such as satellite images and aerial photo data - Machinery and equipment such as computer with GIS software and plotter - Operational costs	- There is no unprecedented conflict among the local residents in the Project Sites that hampers the implementation of the CB-NRM activities. - Markets for the products produced through micro programs do not fluctuate to a notable degree to affect the production. - Basic laws and regulations related to land, forest and decentralization that are under discussion at the beginning of the Project do not contradict or hamper the Project implementation. - Serious natural disasters or drastic climatic problems do not occur in the Project Sites. - There is no security problem in Timor-Leste, particularly in the Project Sites.	Pre-Conditions - The local residents in the Project Sites are willing to participate in the Project Sites. - The relevant local government administrations are supportive to the Project activities. - Understanding on and cooperation to the Project activities are derived from development partners. - The key operating actors who were trained through the foregoing Project for Community-Based Sustainable Natural Resource Management take part in the Project activities.	<Issues and countermeasures>

NOTES:

(*0) The name of the department has changed from NDFWM to NDFWMAM (National Directorate of Forestry, Watershed, and Mangrove Area Management) since 2021.

(*1) The CB-NRM mechanism is a set of procedures and arrangements to introduce the CB-NRM activities and make them take root in the communities, the operational modalities of which has been developed through implementation of the foregoing project. The CB-NRM mechanism is composed of procedures and activities to be conducted within a *Suco* such as formulation of participatory land use plan, formulation of *Suco* regulations and regular monitoring on them, selection and implementation of micro programs based on the plan and regulations, as well as establishment of local entities at

watershed or sub-watershed level for cross-*Suco* coordination with wider coverage to support the activities in individual *Suco*. Upon the expansion of the CB-NRM mechanism, these components may gradually be introduced in a step-by-step manner depending on the adoption, expansion and financial capacities of the communities, facilitating agencies, and development partners.

(*2) "*Suco*" is the unit of local government and administration.

(*3) The roadmap is the document that indicates the entire process of introducing CB-NRM to the major watersheds in Timor-Leste. The contents of the roadmap include among others prioritization of watersheds, concrete time-lines for introduction of CB-NRM in each watershed, estimation of required resources, necessary institutional arrangement, expected challenges and possible mitigations, identification of facilitators, stakeholders and beneficiaries.

(*4) The new set of policy recommendations includes the improvement of CB-NRM mechanism itself.

(*5) The CB-NRM platform is a forum to encourage the institutions for expansion of CB-NRM to be functional.

(*6) Each *Suco* regulation should be adjusted to the situation and needs of local communities.

(*7) The CB-NRM promotor is referred to as "the CB-NRM technical coordinator" in the certificate provided to the MAF and Ailleu Municipality Officials who are engaged in project activities.

Attachment 2

Plan of Operation (PO)

Activities	Year	2016		2017			2018			2019			2020			2021			2022	Responsible Organizations		Achievements	Issue & Counter-measures																			
		7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12	1-3	Japan			TL																		
Sub-Activities																																										
Activity 1-2 Develop a skeleton framework of the road map to expand the CB-NRM mechanism.																																										
1-2-1 To consult with the stakeholders working on review and revision of the Forestry Sector Policy to ensure the alignment of directions.	Original																																									
1-2-2 To determine a broad time frame for CB-NRM expansion to the major watersheds.	Original																																									
1-2-3 To draft the skeleton framework of the road map.	Original																																									
Actual																																										
Activity 1-3 Draft the road map to expand the CB-NRM mechanism.																																										
1-3-1 To organize a committee/task force to prepare the road map.	Original																																									
1-3-2 To hold a series of meetings to assess the situations (i.e. implementation of The Policy Recommendations for CB-NRM Expansion, capacity development of key operational actors and information derived through the CB-NRM platform) to discuss the road map.	Original																																									
1-3-3 To draft the road map in consultation with NDFWM and MAF officers.	Original																																									
1-3-4 To finalize the road map in a compiled document.	Original																																									
Activity 1-4 To analyze detailed information on high priority watersheds in order to assist MAF in formulating the implementation plan for the CB-NRM roadmap, using external funds																																										
1-4-1 To assess the effectiveness of the CB-NRM mechanism on climate change	Original																																									
1-4-2 To analyze the impacts of the CB-NRM mechanism on forest conservation, using satellite images	Original																																									
1-4-3 To collect the basic data of forest biomass in target watersheds	Original																																									
1-4-4 To provide a future scenario on NRM by communities in target watersheds	Original																																									
1-4-5 To formulate action plan based on gender analysis	Original																																									
1-4-6 To develop environmental and social action plan or framework	Original																																									
1-4-7 To carry out economic analysis	Original																																									
1-4-8 To carry out stakeholder analysis	Original																																									
1-4-9 To propose implementation arrangement	Original																																									
1-4-10 To facilitate consensus building among stakeholders on the draft implementation plan	Original																																									
Activity 1-5 Obtain agreement and official endorsement by MAF on the road map.																																										
1-5-1 To explain the initial draft of the road map to the relevant authorities and stakeholders in MAF.	Original																																									
1-5-2 To organize a series of discussions for elaboration of the road map.	Original																																									
1-5-3 To submit the final draft to respective authority in MAF for approval and endorsement.	Original																																									
Activity 1-6 Assist MAF in preparing for the implementation of the CBNRM roadmap																																										
1-6-1 To provide technical inputs to the funding proposal for GCF and the discussion with GCF	Original																																									
1-6-2 To support contracting process with GCF	Original																																									
1-6-3 To select target villages through consultation with MAF stakeholders (incl. Municipalities)	Original																																									
1-6-4 To do grouping and prioritization of the target villages for effective and efficient implementation	Original																																									
1-6-5 To prepare technical materials for implementation e.g. for procurement and field training	Original																																									
1-6-6 To conduct socialization for the target villages to understand the CBNRM and the GCF project	Original																																									
1-6-7 To identify baseline data which contribute to the monitoring and evaluation of the GCF project implementation	Original																																									
1-6-8 To support the setup of MAF implementation arrangements (central and municipality monitoring teams)	Original																																									
1-6-9 To support the preparation of inception report for the GCF project	Original																																									
Actual																																										

Activities	Year	2016			2017			2018			2019			2020			2021			2022			Responsible Organizations		Achievements	Issue & Counter-measures
		7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12	Japan		
Output 2: Enabling environment is developed to enhance relevant institutions for expansion of the CB-NRM mechanism.																										
Activity 2-1 Facilitate the set-up of a secretariat in MAF/NDFWM in coordination with existing networks and fora.																										
2-1-1 To assess the existing networks and fora that may be tapped to set up the CB-NRM platform.																										
Original																										
Actual																										
2-1-2 To establish a taskforce to develop a platform in coordination with NDFWM and other relevant stakeholders.																										
Original																										
Actual																										
2-1-3 To discuss the concepts, objectives, functions and activity of the CB-NRM platform.																										
Original																										
Actual																										
2-1-4 To finalize the concepts and plans with identification of membership.																										
Original																										
Actual																										
Activity 2-2 Identify the stakeholders and key operational actors working in the fields relevant to CB-NRM.																										
2-2-1 To gather information on the stakeholders working in the fields relevant to CB-NRM.																										
Original																										
Actual																										
2-2-2 To contact the potential stakeholders to sensitize the idea of the CB-NRM platform.																										
Original																										
Actual																										
Activity 2-3 Assist the CB-NRM platform to sensitize the members of the platform on the CB-NRM mechanism and regularly exchange information and to accumulate lessons learned and good practices.																										
2-3-1 To assist the secretariat to organize regular meetings for sensitization and information exchange.																										
Original																										
Revised																										
2-3-2 To assist the secretariat to keep records of regular meetings / information exchange activities.																										
Original																										
Revised																										
2-3-3 To assist the secretariat to compile the lessons learned and good practices reported in the meetings / information exchange activities.																										
Original																										
Revised																										
Activity 2-4 Formulate a new set of policy recommendations on further expansion of the CB-NRM mechanism.																										
2-4-1 To facilitate the NDFWM to review and evaluate the results of the Policy Recommendations for CB-NRM Expansion to identify problems and necessary actions for further expansion of the CB-NRM mechanism.																										
Original																										
Actual																										
2-4-2 To assist the NDFWM in discussion and drafting of a new set of policy recommendation for the period after 2019.																										
Original																										
Actual																										
2-4-3 To consult with the members of the CB-NRM platform on the draft policy recommendations.																										
Original																										
Revised																										
2-4-4 To finalize and submit the new set of policy recommendations to the Minister for approval.																										
Original																										
Revised																										
Output 3: Capacities of key operational actors including NDFWM, NGOs and other stakeholders are improved through actual engagement in implementation of the CB-NRM mechanism.																										
Activity 3-1 Facilitate the implementation of the CB-NRM mechanism in Project Sites, following the manuals developed by the foregoing Project for Community-Based Sustainable Natural Resource Management.																										
3-1-1 To monitor the CB-NRM implementation in the six (6) <i>sucos</i> where the interventions were made by the Project Phase 1.																										
Original																										
Revised																										
3-1-2 To conduct Participatory Land Use Planning in the <i>sucos</i> in the Project Sites.																										
Original																										
Revised																										
3-1-3 To facilitate the local residents to formulate the <i>sucos</i> regulations.																										
Original																										
Revised																										
3-1-4 To assist the local residents to identify and select the micro programs to be implemented.																										
Original																										
Revised																										
3-1-5 To facilitate the implementation of micro programs. (1st Batch)																										
Original																										
Revised																										
(2nd Batch)																										
Original																										
Revised																										
3-1-6 To monitor the observance of <i>sucos</i> regulations and implementation of micro programs. (1st Batch)																										
Original																										
Revised																										
(2nd Batch)																										
Original																										
Revised																										
(3rd Batch)																										
Original																										
Revised																										

Activities	Year	2016		2017			2018			2019			2020			2021			2022	Responsible Organizations		Achievements	Issue & Counter-measures
		7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12	1-3	Japan		
Sub-Activities																				Japan	TL		
Activity 3-2 Facilitate the establishment and operation of watershed management councils in the Project Sites.																							
3-2-1 To review the performance of Noru watershed management council to analyze its necessity and effectiveness.	Original																						
3-2-2 To examine and introduce possible improvement of the Noru watershed management council.	Original																						
3-2-3 To monitor the activities of Noru watershed management council.	Original																						
3-2-4 To consult with respective local government authorities in Bemos sub-watershed to sensitize them on CB-NRM.	Original																						
3-2-5 To conduct study tours and stakeholder analysis to select the members of the watershed management council in Bemos sub-watershed.	Original																						
3-2-6 To conduct situation analysis to draw out common visions of the Bemos sub-watershed.	Original																						
3-2-7 To formulate bi-laws and resolution of the Bemos watershed management council.	Original																						
3-2-8 To facilitate the council to formulate the Bemos watershed management council.	Original																						
3-2-9 To monitor the activities of Bemos watershed management council.	Original																						
Actual																							
Revised																							
Activity 3-3 Conduct the OJT for the key operational actors in and outside the Project Sites through the implementation of the CB-NRM mechanism in 3-1 and 3-2 above.																							
3-3-1 To select the key operational actors who will participate in the OJT.	Original																						
3-3-2 To make necessary arrangement for the selected actors to take part in the OJT.	Original																						
3-3-3 To conduct the OJT along with the implementation of CB-NRM mechanism.	Original																						
3-3-4 To review the process of the OJT.	Original																						
3-3-5 To accumulate information on the key operational actors who completed the OJT to compile them into a list of the human resource for CB-NRM.	Original																						
Actual																							
Revised																							
Duration / Phasing	Original																						
Revised																							
Monitoring Plan	Year	2016		2017			2018			2019			2020			2021			2022	Remarks	Issue	Solution	
Monitoring		7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12				1-3
Joint Coordinating Committee	Original																						
Set-up the Detailed Plan of Operation	Original																						
Submission of Monitoring Sheet	Original																						
Monitoring Mission from Japan	Original																						
Joint Monitoring	Original																						
Post Monitoring	Original																						
Actual																							
Revised																							
Reports/Documents	Original																						
Interim Report	Original																						
Project Completion Report	Original																						
Actual																							
Revised																							
Public Relations	Planned																						
Actual																							
Planned																							
Actual																							

Attachment 3

Project leaflet
(Japanese, English, and Tetun)

フェーズ I (2010-2015) の活動と成果

- ❖ PLUPの実施を通じて、対象村落における村長等のマネジメント能力が強化され、山火事や不法伐採、放牧による農作物被害の発生件数が減少した。
- ❖ ノル流域において、行政と関連村落からなる流域管理評議会が設立された。



流域管理評議会は、各村長、関連準県庁、そしてNDFWM職員等が一堂に集まり、村落間、流域レベルでの天然資源管理について協議する重要な場となっている。

- ❖ MPの一環として、約300名の農家が55,200本の苗木を植樹した。そして約200名の農民により約3,600本の苗木が生産された。
- ❖ 持続的な傾斜地農業技術の導入により、約600名の農民が、メイズ等の畑作物の生産性を向上させるとともに、移動耕作をやめ、常畑農業にきりかえた。



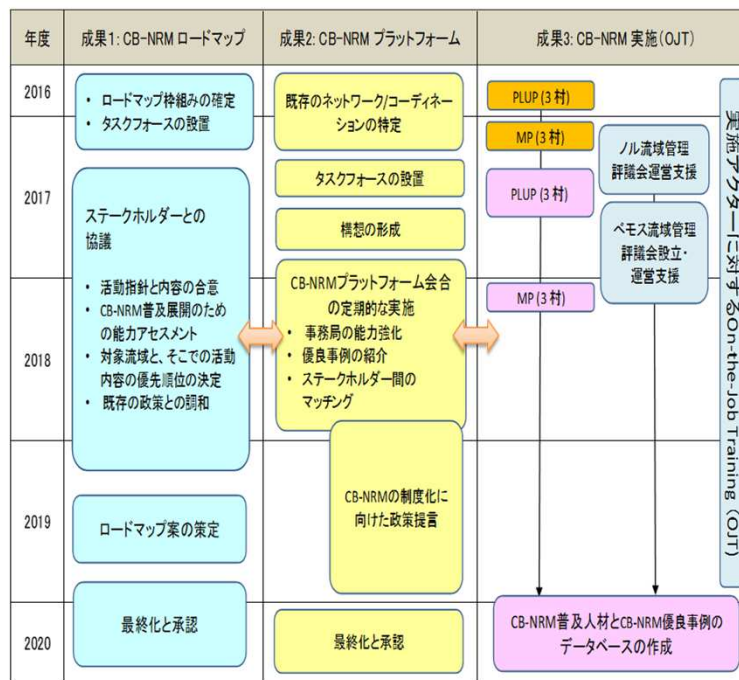
(左から) 村民による苗床作り、植樹、堆肥づくり

- ❖ 女性グループを対象に食品加工による生計向上プロジェクトを実施した。ある女性グループは、キャッサバチップス製造と販売により、約USD 3,000を売り上げた。



プロジェクト実施スケジュール(フェーズ II)

- ❖ 全体の実施スケジュールを以下の図に示す。



お問い合わせ:

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 Tel / Fax : +670-333-1125
 Email アドレス: itakura.i@idcj.or.jp, tamura.m@idcj.or.jp
 フェイスブックページ: @JICATimorLesteCBNRM



MAF/JICAプロジェクト 東ティモール国

持続可能な天然資源管理能力向上 プロジェクト・フェーズ II (CB-NRM II)



将来土地利用計画策定に向けて、村民とNGO・政府職員が一同となって現在土地利用図を作成している様子。

プロジェクト期間: 2016年8月から2020年8月まで

実施組織: 農業水産省 (MAF) 特に森林・流域管理局 (NDFWM)

プロジェクト目標: 住民参加型天然資源管理 (CB-NRM) メカニズムを普及展開するために必要なNDFWMおよびNGO等実施アクターの能力が強化される。



対象地域:
 コモロ川流域
 (左図青線境界内)
 ラクロ川流域
 (同赤線境界内)

(右図出典: Google Map)

CB-NRM プロジェクトは、農村コミュニティによる持続可能な天然資源管理の実現を目指し、参加型土地利用計画 (PLUP) と、未来の土地利用を実現するための森林管理、農業開発、生計向上等のマイクロプログラム (MP) の実施を支援しています。また、CB-NRMを導入する村落を中心とする流域管理評議会の活動・運営も支援しています。

成果 1 ロードマップ

CB-NRMメカニズムを普及展開するためのロードマップが作成される。

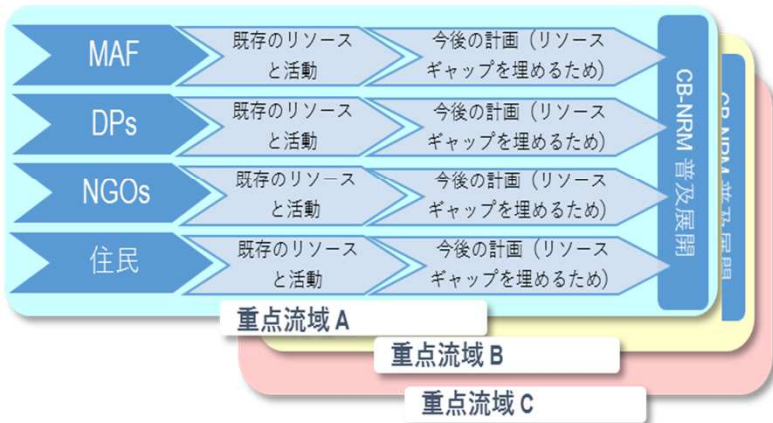
成果1に向けた活動内容

- 1-1: CB-NRMメカニズムの東ティモールの主要な流域への更なる普及展開に向けて、対処すべき課題と必要な取り組みを特定する。
- 1-2: CB-NRMメカニズム普及展開に向けたロードマップの枠組みを策定する。
- 1-3: CB-NRMメカニズムの普及展開に向けたロードマップ案を策定する。
- 1-4: ロードマップに対するMAFの合意と承認を取り付ける。

❖ 東ティモールの重点流域におけるステークホルダー間の連携を促進し、CB-NRMに活用できる既存の資源を把握・調整するとともに、開発ニーズに対するギャップを埋めるべく将来に向けた計画指針をロードマップとしてとりまとめる(下図)。

❖ 重点流域におけるCB-NRMの普及展開は、コミュニティ・レベルでの森林基本法と森林セクター政策の実施に貢献する。

優先順位に基づくタイムフレーム



MAF: Ministry of Agriculture and Forestry
DPs: 開発パートナー (Development Partners)

成果 2 プラットフォーム

CB-NRMメカニズムを普及展開するための制度強化に向けた相互支援的な環境が整備される。

成果2に向けた活動内容

- 2-1: 既存の各種ネットワーク・フォーラムとの調整を通じ、MAF/NDFWM内の事務局の設置を支援する。
- 2-2: CB-NRMに関連した分野で活動する関係機関及び主要な実施アクターを特定する。
- 2-3: CB-NRMプラットフォームによるプラットフォーム参加者へのCB-NRMメカニズムの広報啓発と、定期的な情報交換、教訓・優良事例の蓄積を支援する。
- 2-4: CB-NRMメカニズムの更なる普及展開に向けた新たな政策提言を策定する。

❖ CB-NRMプラットフォームは、天然資源管理の分野で活動するステークホルダーの実践的な情報交換の場として、様々な便益をもたらすものとなる。以下の図に、プラットフォームメンバー間に期待されるいくつかの実益の例を示す。



成果 3 能力強化

CB-NRMメカニズムの実践を通じて森林・流域管理局およびNGO等実施アクターの能力向上が図られる。

成果3に向けた活動内容

- 3-1: 先行協力である「持続可能な天然資源管理能力向上プロジェクト」によって開発されたマニュアルに基づき、プロジェクトサイトにおけるCB-NRMメカニズムの実践を支援する。
- 3-2: プロジェクトサイトにおける流域管理評議会の設立・運営を支援する。
- 3-3: 上記3-1及び3-2のCB-NRMメカニズムの実施を通じて、プロジェクトサイト内外の主要な実施アクターを対象としたOJTを実施する。



❖ JICAプロジェクトチームは、CB-NRM関連業務に経験豊富な現地NGOと再委託契約を結び、比較的新しいNGOや他の開発パートナーのスタッフを対象に、CB-NRM実施を通じたOn-the-Job Training (OJT)を実施する(左図)。

❖ JICAプロジェクトチームは、OJT研修生等に対して、PLUP実施のためのガイダンスを行い、彼らが実施する村落ワークショップをバックアップ支援する。能力強化のため、研修生のファシリテーション能力は、NGOやMAF職員により評価され、フィードバックされる。



対象村落にて、村民からCB-NRM作業部会のメンバーを選出することは、メカニズム実施において重要な第一ステップである (写真上)。

Phase I Project (2010-2015)

The following is the list of achievements from the phase I project.

- Village leaders enhanced their governance capacity. The incidence of forest fires, illegal cutting, and crop damage caused by animals has drastically declined.
- Noru Watershed Management Council formed by relevant posts administrative and villages.



Village leaders and post administrative officers together with NDFWM officers discuss natural resource management at inter-village and watershed level .

- Around 55,200 seedlings planted by 300 farmers while 3,600 seedlings produced by 200 farmers.
- About 600 farmers have applied sustainable upland farming techniques at their own farms, improving crop yield. Shifting cultivation was abandoned.



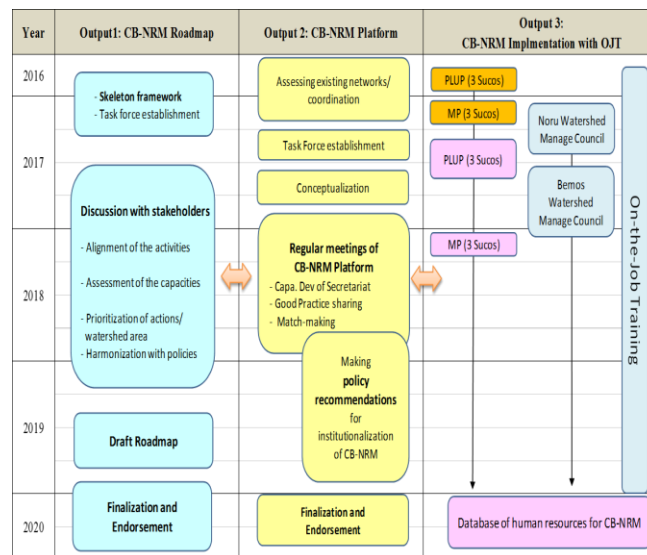
Nursery making/ Planting/Compost making

- Women enjoyed additional sources of income, e.g. groups in one village have earned about US\$ 3,000 from the sales of cassava chips using their products.



Timeline for the CB-NRM Project Phase II

- Overall work schedule is shown in the diagram below.

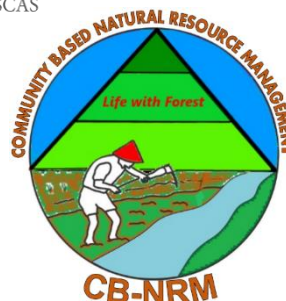


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the People of Japan

MAF/JICA Project for Community-based Sustainable Natural Resource Management (CB-NRM) Phase II



Villagers, NGOs and MAF officers are discussing the current availability of the resources before planning for the future land use.

Project Period:

August 2016 – August 2020

Targeted Area:

Comoro watershed and Lacro watershed

Implementers:

National Directorate for Forestry and Watershed Management (NDFWM), Ministry of Agriculture and Fisheries (MAF)

Project Purpose:

Capacities of key operational actors including NDFWM, NGOs and other stakeholders to expand the CB-NRM mechanism are enhanced.

The **CB-NRM** Project works with rural communities to establish a mechanism for sustainable natural resource management through Participatory Land Use Planning (PLUP) and the implementation of Micro Programs (MPs) for forestry management, agricultural development and livelihood improvement. Furthermore, the villages can also form a Watershed Management Council.

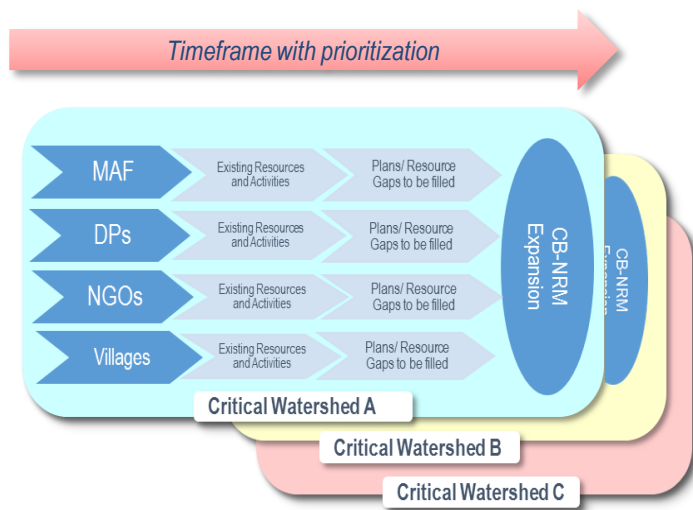
Output 1 Roadmap

The roadmap for the expansion of the CB-NRM mechanism is formulated.

The followings are the activities planned for Output 1.

- 1-1. Identify issues to be addressed and measures to be taken for expansion of the CB-NRM in major watersheds
- 1-2. Develop a framework of the roadmap
- 1-3. Draft the roadmap
- 1-4. Obtain agreement and official endorsement by MAF on the roadmap

- ❖ The stakeholders (MAF, DPs, NGOs, Villagers) work together on more prioritized, critically degraded watersheds to manage existing resources and plan to fill the gaps of the resources for the future.
- ❖ The activity would contribute to the implementation of forestry law and forestry sector policy at community level.



Output 2 Platform

Platform is developed to enhance relevant institution for CB-NRM expansion.

The followings are the activities planned for Output 2.

- 2-1. Facilitate the set-up of a secretariat in MAF in coordination with existing networks and fora
- 2-2. Identify the stakeholders working in the fields relevant to CB-NRM
- 2-3. Assist the platform to regularly exchange information to accumulate lessons learned and good practices
- 2-4. Formulate a new set of policy recommendations on further expansion of the CB-NRM

- ❖ CB-NRM platform formation would bring multiple benefits in terms of coordination among stakeholders working in the same field. The diagram below shows some of the expected activities among the platform members.

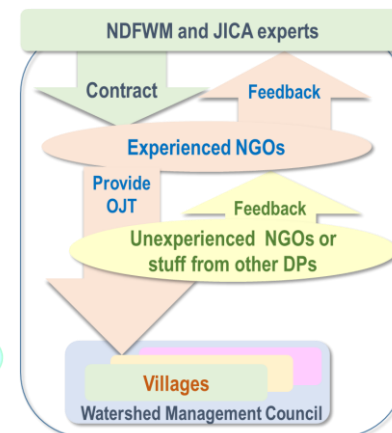


Output 3 Capacity development

Capacities of key actors are improved through on-the-job trainings (OJT).

The followings are the activities planned for Output 3.

- 3-1. Facilitate the implementation of the CB-NRM in Project Sites (6 villages)
- 3-2. Facilitate the establishment and operation of watershed management councils at the Project Sites
- 3-3. Conduct the On-the-Job Training (OJT) for the key actors through the implementation of the CB-NRM mechanism



- ❖ As shown in the diagram on the left, JICA Project Team contracts with the experienced NGOs for providing OJTs on CB-NRM activities to the members of other unexperienced NGOs or field stuff of the developing partners.

- ❖ JICA Project Team provides guidance for the PLUP activities for the OJT trainees to facilitate the workshops in the villages. Their performances are evaluated, and feedbacks on them are given by the MAF officers.



Formation of a CB-NRM working group at each village is an important first step for the implementation of the mechanism.

Phase I Projeto (2010-2015)

- ❖ Hasae kapacidade lider suku sira nian iha jestaun. Inciden hosi sunu ai laran, tesi ai ilegal, no estraga ai han kauja hosi animal menus ona
- ❖ Forma Koncelho Jestaun Bacias Hidrografikas ho postu administrativu no suku relevante.



Lider suku no officias postu administrativu hamutuk ho officias DNFGBH diskuti jestaun rekursu natural iha suku no nivel bacias hidrografikas .

- ❖ Pelmenus ai oan 55,200 nebe kuda hosi toos nain no ai oan 3,600 nebe produs hosi toos nain 200.
- ❖ Pelmenus toos nain 600 nebe applika tekniku toos foho lolon sustentabel iha sira nia toos rasik, hasae produsau. Abandona toos muda ba mai.



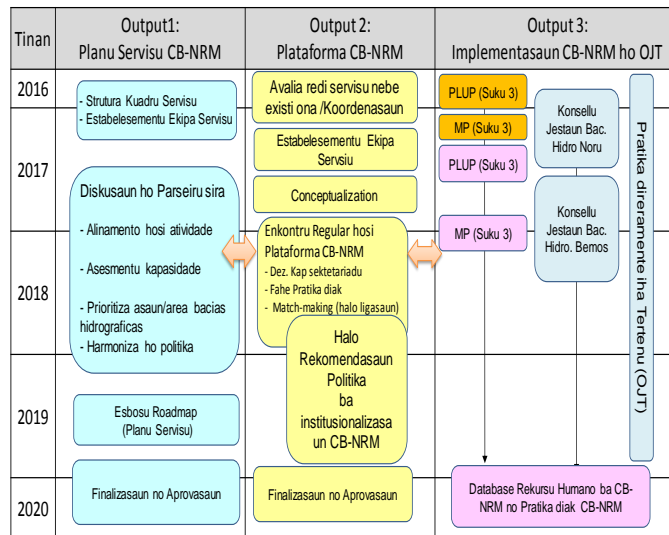
Halo viveros/kuda/halo kompos

- ❖ Feto sira bele hetan rendementu, esemplu grupo iha suku ida hetan rendementu pelmenus US\$ 3,000 hosi faan kripik aifarina uja sira nia produto.



Horariu ba Projeto Fase II CB-NRM

- ❖ Horariu em jeral hatudu iha diagrama tuir mai.

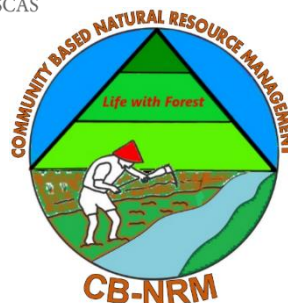


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Projeto JICA/MAP ba Jestaun Rekursu Natural Sustentabel Baseia ba Komunitade (CB-NRM) Fase II



Em a iha suku, ONG no officias MAP diskuti rekursu nebe mak agora disponivel antes planu ba uja rai futuru.

Periodo Projeto:

Augusto 2016 – Augusto 2020

Area targetu:

Bacias hidrografikas Komoro no Laklo

Implementador:

Diresaun Nasional Floresta no Gestaun Bacias Hidrografikas (DNFGBH), Ministerio Agrikultura no Peskas (MAP)

Objetivu Projeto:

Kapacidade hosi autor operacional importante inklui DNFGBH, ONG no parceiru sira seluk atu habelar mekanismu CB-NRM.

Projeto **CB-NRM** servisu ho komunitade iha area rural atu estabelese mekanismu ba jestaun rekursu natural sustentabel liu hosi Planu Uja Rai Partecipatoriu (PLUP) no implementasaun Programa mikro (MPs) ba jestaun floresta, desenvolvemenetu agrikultura no hadia vida moris. No mos, suku bele mos forma Koncelho Jestaun bacias Hidrografikas.

Resultadu 1 Planu Assaun

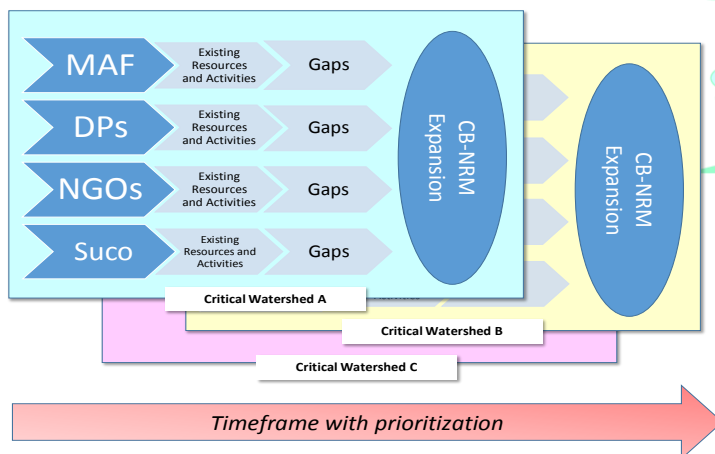
Planu Assaun ba Espansaun mekanismu CB-NRM.

Tuir mai atividade nebe planu ba Resultadu 1.

- 1-1. Identifika problema nebe diriji no medida nebe foti ba espansaun mekanismu CB-NRM iha bacias hidrografikas
- 1-2. Desenvolve kuadru servisu hosi planu assaun
- 1-3. Esbosu Planu Assaun
- 1-4. Iha Akordu no approva official hosi MAP kona ba planu assaun

- ❖ Parceiru sira (MAP, DPs, ONG, Ema iha Suku) servisu hamutuk ba iha bacias hidrografikas nebe prioridade, kritiku liu atu maneija rekursu nebe iha ona no planu atu hakonu gap ba rekursu iha futuro.
- ❖ Atividade bele kontribui ba implementasaun lei floresta no politika seitor floresta iha nivel comunidade.

MAF: Ministry of Agriculture and Forestry
DPs: Development Partners



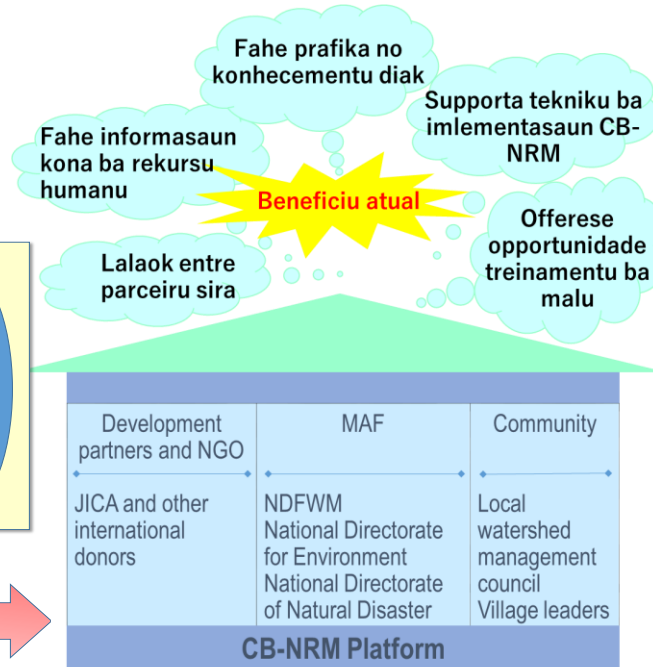
Resultadu 2 Platforma

Platforma desenvolve atu hametin instituisaun relevante ba espansaun CB-NRM.

Tuir mai atividade nebe planu ba Resultadu 2.

- 2-1. Facilita estabelesementu sekretariadu iha MAP iha koordinasaun ho rede nebe existe ona
- 2-2. Identifika parceiru servisu iha area relevante ba CB-NRM
- 2-3. Assiste plataforma atu troka informasaun regularmente atu akumula lissaun no pratika nebe diak
- 2-4. Formulasau rekomendasaun politika foun kona ba espansaun CB-NRM

- ❖ Formasaun plataforma CB-NRM sei lori beneficiu barak in termos hosi koordinasaun entre parceiru nebe servisu iha area hanesan. Diagram tuir mai hatud atividade nebe espera entre membro hosi plataforma.

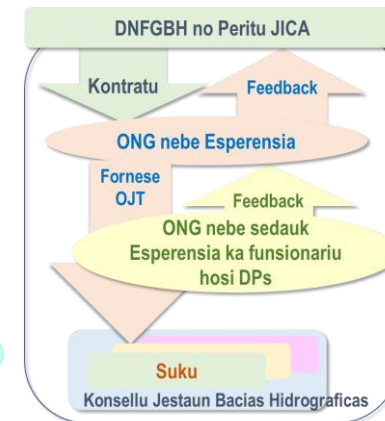


Resultadu 3 Desenvolvimentu Kapacidade

Hasae kapacidade autor importante liu hosi Treinamentu (OJT).

Tuir mai atividade nebe planu ba Resultadu 3.

- 3-1. Facilita implementasaun CB-NRM iha fatin projeto (suku 6)
- 3-2. Facilita estabelesementu no operasaun hosi koncelho jestaun bacias hidrografikas iha Fatin Projeto
- 3-3. Halao treinamentu (OJT) ba autor importante liu hosi implementasaun mekanisu CB-NRM



- ❖ Hanesan hatudu iha diagrama iha liman karuk, Ekipa Projeto JICA halo kontratu ho ONG nebe iha esperiencia hodi fornese OJT kona ba atividade CB-NRM ba membro ONG nebe mak sidauk iha esperiencia ou staff iha terreno hosi parceiru desenvolvimentu.

- ❖ Ekipa Projeto JICA fornese matadalan ba atividade PLUP ba membro OJT atu facilita workshops iha suku. Sira nia performancia avalia, no hatoo feedback ba sira nebe hatoo hosi officias MAP.



Forma ekipa servisu CB-NRM iha nivel suku nee passu importante ba implementasaun mekanismu.

Attachment 4

Project websites (Japanese and English)

ホーム > 事業・プロジェクト > 事業ごとの取り組み > 技術協力 > 技術協力プロジェクト > 国別取り組み > アジア > 東ティモール > 持続可能な天然資源管理能力向上プロジェクトフェーズII

ページを共有する

事業・プロジェクト

世界が抱える課題への取り組み

● 事業ごとの取り組み

- 技術協力
- 有償資金協力
- 無償資金協力
- JICAボランティア派遣事業
- 国際緊急援助
- 市民参加
- 民間連携
- 科学技術協力
- 開発パートナーシップ
- 南南・三角協力
- 調査研究
- JICA開発大学院連携
- 協力プログラム及び案件の形成
- 新規実施予定案件

▶ プロジェクト・案件一覧

▶ 事業実績

▶ 事業評価

● 持続可能な天然資源管理能力向上プロジェクトフェーズII

English

東ティモールでは、2003年から2012年の間に約184,000ヘクタールの森林が減少し、また約171,000ヘクタールの密林が疎林または畑などの森林以外の土地利用へと劣化しました。森林の減少・劣化は、中山間地に住む貧困農民の経済活動に起因することが多く、その主な原因は、人口増による新規開墾、焼畑耕作、薪炭材の採取、その他無秩序な土地利用変化です。

本プロジェクトのフェーズ1では、現地NGOと協力して、ラクロ川及びコモロ川流域内の6村落において、コミュニティが森林資源を含む天然資源を持続的に管理していくための仕組みとして、CB-NRM (Community-Based Sustainab...

対象国：
東ティモール

課題：
自然環境保全

署名日：
2016年2月18日

協力期間：
2016年8月19日から2020年8月28日

相手国機関名：
農業水産省 森林・流域管理局

メニュー

- [プロジェクト概要](#)

ODA見える化サイト

この案件の関連情報を、ODA見える化サイトでもご覧いただくことができます。

- [ODA見える化サイトへ](#)

プロジェクトソーシャルメディア

Facebookページ

● [プロジェクト概要](#)

更新情報

2018年12月21日 ● [プロジェクトホームページを新規開設しました。](#)

関連リンク

- [東ティモール \(各国における取り組み\)](#)

事業・プロジェクト

世界が抱える課題への取り組み

● 事業ごとの取り組み

- 技術協力
- 有償資金協力
- 無償資金協力
- JICAボランティア派遣事業
- 国際緊急援助
- 市民参加
- 民間連携
- 科学技術協力
- 開発パートナーシップ
- 南南・三角協力
- 調査研究
- JICA開発大学院連携
- 協力プログラム及び案件の形成
- 新規実施予定案件

▶ プロジェクト・案件一覧

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● プロジェクト概要

プロジェクト名

持続可能な天然資源管理能力向上プロジェクトフェーズII

対象国名

東ティモール

署名日 (実施合意)

2016年2月18日

プロジェクトサイト

コモロ川流域及びラクロ川流域

協力期間

2016年8月19日から2020年8月28日

相手国機関名

(和) 農業水産省 森林・流域管理局
(英) National Directorate for Forestry and Watershed Management (NDFWM) , Ministry of Agriculture and Fisheries (MAF)

背景

東ティモールでは、2003年から2012年の間に約184,000ヘクタールの森林が減少し、また約171,000ヘクタールの密林が疎林または畑などの森林以外の土地利用へと劣化しました。森林の減少・劣化は、中山間地に住む貧困農民の経済活動に起因することが多く、その主な原因は、人口増による新規開墾、焼畑耕作、薪炭材の採取、その他無秩序な土地利用変化です。本プロジェクトのフェーズ1では、現地NGOと協力して、ラクロ川及びコモロ川流域内の6村落において、コミュニティが森林資源を含む天然資源を持続的に管理していくための仕組みとして、CB-NRM (Community-Based Sustainable Natural Resource Management) メカニズムを確立・導入しました。CB-NRMメカニズムでは、対象村落のコミュニティが、現在の土地利用状況や資源活用法を見直し、将来あるべき姿に向けての土地利用計画(将来土地利用計画)を策定します。また、それを実現するために、伝統的慣習法に則って、許可制に基づく木の伐採や家畜放牧の禁止などのルールを盛り込んだ村落規則を策定し、運用します。さらに、住民主導でできる土地利用の改善活動として、移動焼畑農法から定農地(Permanent Farm)での等高線栽培やテラス栽培への移行(持続的畑作農業振興)、住民による苗木生産と植樹、女性のための生計向上活動等を実施します。これら活動によって、コミュニティ自身が、違法伐採や森林火災等の発生状況を把握することが可能となりそれを抑制していくとともに、土地利用を改善していくことができるようになりました。本プロジェクト(フェーズ2)では、このフェーズ1の成果を活かして、東ティモールの主要流域にCB-NRMメカニズムを普及すべく、MAF/NDFWMや現地NGO等の実施アクターの更なる能力強化を目指します。

目標

上位目標

ロードマップに基づき、CB-NRMメカニズムが東ティモールの主要な流域に普及展開される。

プロジェクト目標

CB-NRMメカニズムを普及展開するために必要なNDFWMおよびNGO等の実施アクターの能力が強化される。

成果

成果1: CB-NRMメカニズムを普及展開するためのロードマップが作成される。
成果2: CB-NRMメカニズムを普及展開するための制度強化に向けた相互支援的な環境が整備される。
成果3: CB-NRMメカニズムの実践を通じて、森林・流域管理局およびNGO等実施アクターの能力向上が図られる。

投入

日本側投入

専門家派遣
ローカルスタッフ配置
本邦への研修員受入
資機材

相手国側投入

カウンターパート配置
プロジェクトオフィス等の施設及び機材

持続可能な天然資源管理能力向上プロジェクト フェーズ2

The Project for Community-Based Sustainable Natural Resource Management (CBNRM) Phase2

実施中案件



国名

東ティモール

事業

技術協力

課題

自然環境保全

協力期間

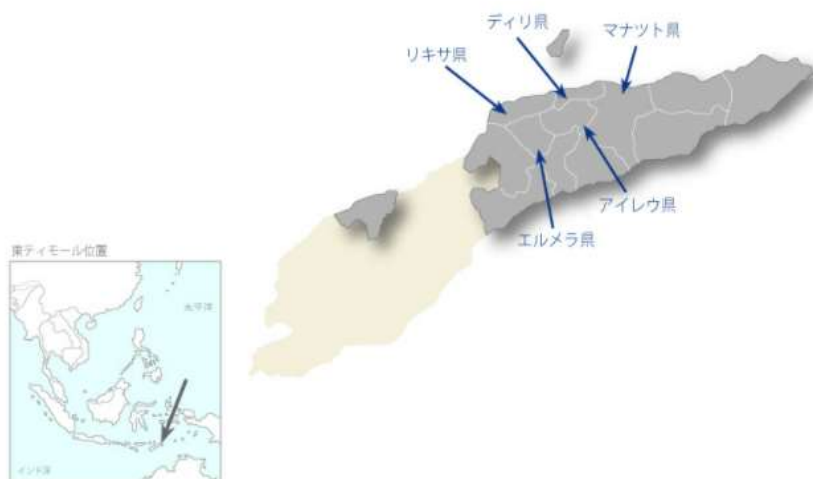
2016年8月～2020年8月

プロジェクト紹介

東ティモールでは、2003年から2012年の間に約171,000ヘクタールの密林が疎林へと劣化しました。主な原因は、中山間地に住む貧困農民による経済活動が起因となることが多く、土壌侵食や斜面崩壊、鉄砲水などを引き起こし、河川流域の住民生活に悪影響を及ぼしています。フェーズ1の協力においては、ラクロ川及びコモロ川の両流域内の6村落において、村落レベルで住民参加型の持続可能な天然資源管理の実施メカニズムを開発しました。これにより、対象村落では、住民の生計向上活動が実施され、苗木生産などの活動も実施されるようになりました。フェーズ2の協力では、関係機関のさらなる能力強化を図り、複数の主要な流域にフェーズ1で開発した持続可能な天然資源管理メカニズムの普及展開を図ります。これにより、同国の主要な流域において、住民参加型の天然資源管理能力の普及、向上に寄与します。

>プロジェクトのウェブサイト

協力地域地図



English : <https://www.jica.go.jp/project/english/easttimor/008/index.html>

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The Project for Community-Based Sustainable Natural Resource Management Phase II

日本語

Country
Timor-Leste

Term of Cooperation
Aug. 19, 2016 to Aug. 28, 2020

Subject
Natural Environment Conservation

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2019-09-11 [Newsletter updated.](#)

2018-12-21 [English site opened.](#)

Related Links

- [JICA Timor-Leste Office](#)

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Outline of the Project

Project Name
The Project for Community-Based Sustainable Natural Resource Management Phase II

Country
Timor-Leste

Date Record of Discussion signed
18 February 2016

Project Site
Comoro and Lacio watersheds

Term of Cooperation
19 August 2016 – 28 August 2020

Implementing Agency
National Directorate for Forestry and Watershed Management (NDFWM), Ministry of agriculture and Fisheries (MAF)

Background
In Timor-Leste, about 184,000 ha of forests had disappeared between 2003 and 2012, and about 171,000 ha of dense and sparse forests had degraded in the same period to either sparse forest or other land use such as farmland. These deforestation and forest degradation mainly derive from economic activities of poor upland farmers, including reclamation of new lands, slash-and-burn farming, firewood collection and uncontrolled change in land use.

The Phase I of the Project established and introduced "Community-Based Sustainable Natural Resource Management" (CB-NRM), which allowed the communities to manage natural resources including forests in a sustainable manner, to six (6) villages of Comoro and Lacio watersheds in collaboration with local NGOs.

In CB-NRM mechanism, target village community reviews present land and resource utilization and formulate a plan which envisions a desirable land use in the future, namely future land use plan. To implement the plan, the community formulates and operationalize a set of village regulations, including licensed tree cutting and prohibition of free animal grazing, based on customary rules. In addition, CB-NRM mechanism introduces a transition from slash-and-burn/shifting cultivation to contour and bench-terrace farming (sustainable upland farming promotion), community-based seedling production and tree planting and income generation activities of women's groups, as the measures for promoting land use improvement led by the community. These activities allowed the target communities to understand the actual status of illegal cutting and forest fires and address these issues while adjusting land use. This Project (Phase II) aims at further capacity development of implementing actors, including MAF/NDFWM and local NGOs, for expanding CB-NRM mechanism in major watersheds in the country based on the Phase I achievements.

Overall Goal

Community-based sustainable natural resource management (CB-NRM) mechanism is expanded to some of the major watersheds in accordance with the road map.

Project Purpose

Capacities of key operational actors including NDFWM, NGOs and other stakeholders to expand the CB-NRM mechanism are enhanced.

Outputs

Output1: The road map for future expansion of the CB-NRM mechanism is formulated.

Output2: Enabling environment is developed to enhance relevant institutions for expansion of the CB-NRM mechanism.

Output 3: Capacities of key operational actors including NDFWM, NGOs and other stakeholders are improved through actual engagement in implementation of the CB-NRM mechanism.

Inputs

Japanese side
Experts
Training in Japan
Equipment

Timor-Leste side
Counterpart personnel
Office space and equipment

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Materials

- [CBNRM Operation Manual \(English\) \(PDF/9.77MB\)](#)
- [CBNRM Operation Manual \(Tetun\) \(PDF/9.11MB\)](#)
- [Quick reference of Operation Manual \(English\) \(PDF/599KB\)](#)
- [Quick reference of Operation Manual \(Tetun\) \(PDF/824KB\)](#)
- [Technical Manual Vol. 1 Seedling Production and Tree Planting Promotion \(English\) \(PDF/3.70MB\)](#)
- [Technical Manual Vol. 1 Seedling Production and Tree Planting Promotion \(Tetun\) \(PDF/4.12MB\)](#)
- [Technical Manual Vol. 2 Sustainable Upland Farming Promotion \(English\) \(PDF/3.26MB\)](#)
- [Technical Manual Vol. 2 Sustainable Upland Farming Promotion \(Tetun\) \(PDF/3.68MB\)](#)
- [Technical Manual Vol. 3 Income Generation / Livelihood Development \(English\) \(PDF/5.87MB\)](#)
- [Technical Manual Vol. 3 Income Generation / Livelihood Development \(Tetun\) \(PDF/6.23MB\)](#)
- [Quick reference of Technical Manuals \(English\) \(PDF/5.96MB\)](#)
- [Quick reference of Technical Manuals \(Tetun\) \(PDF/6.63MB\)](#)
- [Manual for Formation of the Watershed Management Council \(English\) \(PDF/11.1MB\)](#)
- [Manual for Formation of the Watershed Management Council \(Tetun\) \(PDF/9.97MB\)](#)
- [CBNRM Information Kit \(English\) \(PDF/5.53MB\)](#)
- [CBNRM Information Kit \(Tetun\) \(PDF/6.06MB\)](#)
- [CBNRM Pamphlet \(English\) \(PDF/871KB\)](#)
- [CBNRM Pamphlet \(Tetun\) \(PDF/973KB\)](#)
- [Completion Report for CBNRM Project Phase I \(English\) \(PDF/4.59MB\)](#)
- [Completion Report for CBNRM Project Phase I \(Tetun\) \(PDF/5.46MB\)](#)
- [Work Plan for CBNRM Project Phase II \(English\) \(PDF/585KB\)](#)

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- [Phase II Newsletter "Life with Forest" /Vol. 2/ Issue 2 \(August 2019\) \(English\) \(PDF/1.23MB\)](#)
- [Phase II Newsletter "Life with Forest" /Vol. 2/ Issue 2 \(August 2019\) \(Tetun\) \(PDF/1.22MB\)](#)
- [Phase II Newsletter "Life with Forest" /Vol. 2/ Issue 1 \(June 2018\) \(English\) \(PDF/1.05MB\)](#)
- [Phase II Newsletter "Life with Forest" /Vol. 2/ Issue 1 \(June 2018\) \(Tetun\) \(PDF/1.09MB\)](#)
- [Phase II Newsletter "Life with Forest" /Vol. 1/ Issue 4 \(Feb. 2018\) \(English\) \(PDF/1.45MB\)](#)
- [Phase II Newsletter "Life with Forest" /Vol. 1/ Issue 4 \(Feb. 2018\) \(Tetun\) \(PDF/1.18MB\)](#)
- [Phase II Newsletter "Life with Forest" /Vol. 1/ Issue 3 \(October 2017\) \(English\) \(PDF/1.71MB\)](#)
- [Phase II Newsletter "Life with Forest" /Vol. 1/ Issue 3 \(October 2017\) \(Tetun\) \(PDF/1.88MB\)](#)
- [Phase II Newsletter "Life with Forest" /Vol. 1/ Issue 2 \(June 2017\) \(English\) \(PDF/429KB\)](#)
- [Phase II Newsletter "Life with Forest" /Vol. 1/ Issue 2 \(June 2017\) \(Tetun\) \(PDF/802KB\)](#)
- [Phase II Newsletter "Life with Forest" /Vol. 1/ Issue 1 \(February 2017\) \(English\) \(PDF/1.58MB\)](#)
- [Phase II Newsletter "Life with Forest" /Vol. 1/ Issue 1 \(February 2017\) \(Tetun\) \(PDF/1.40MB\)](#)