

The Democratic Republic of Timor-Leste

FY2024 Ex-Post Evaluation Report of Technical Cooperation Project

“Project for Community-Based Sustainable Natural Resource Management” and
“Project for Community-Based Sustainable Natural Resource Management Phase II”

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0. Summary

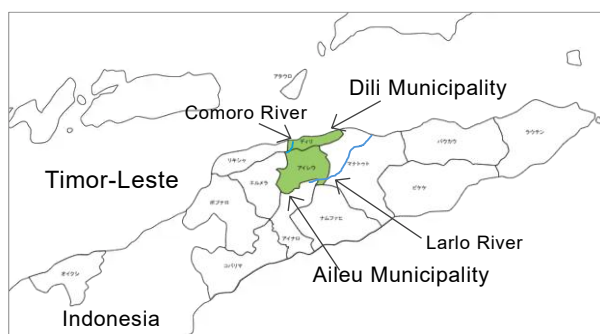
This project,¹ implemented in Laclo and Comoro Watersheds, was intended to develop an operational mechanism of Community-based Sustainable Natural Resource Management (CB-NRM) at the suco² level (Project for Community-Based Sustainable Natural Resource Management, hereinafter referred to as “Phase I”) and to enhance the capacities of key operational actors, including the National Directorate for Forestry, Watershed, and Mangrove Area Management (NDFWMAM), NGOs, and other stakeholders, for expansion of the CB-NRM mechanism (Project for Community-Based Sustainable Natural Resource Management Phase II, hereinafter referred to as “Phase II”). The project was consistent with Timor-Leste’s development policies and needs. The fact that the project’s achievements were reflected in the *Forest Sector Policy* provides useful insights for other projects. The modifications made to the plan to promote the wider dissemination of the CB-NRM mechanism, as well as the approach taken to ensure equity of benefits, were appropriate. The project was consistent with Japan’s development assistance policy and generated synergistic effects through collaboration with other JICA projects and development partners (DPs). Therefore, the project’s relevance and coherence are very high. The project achieved the project purpose of developing the CB-NRM mechanism and enhancing relevant stakeholders’ capacities and the overall goal of expanding the mechanism. Moreover, positive impacts, such as the improvement of livelihoods in the target villages, were observed. Therefore, effectiveness and impacts of the project are high. Although both the project cost and the project period slightly exceeded the plan, efficiency of the project is high. Some issues have been observed in terms of the institutional/organizational and financial aspects, which are not expected to be improved/resolved. Therefore, sustainability of the project effects is moderately low.

In light of the above, this project is evaluated to be satisfactory.

¹ This evaluation was conducted as an integrated assessment of Phase I and Phase II. In this report, unless otherwise noted, “this (the) project” refers to both phases as one project.

² Suco is the primary local administrative unit under the administrative post level.

1. Project Description



Project Location
(Created by the evaluator)



Terrace Cultivation of Vegetables on the Sloping Land in Fahisoi-R Village (Photo taken by the evaluator)

1.1 Background

In Timor-Leste, deforestation and forest degradation were serious issues due to slash-and-burn agriculture and collection of firewood and charcoal, forest fires, and other unregulated land use by farmers in mountainous areas, which resulted in soil erosion, slope collapses, flash floods, and other problems that had a negative impact on the livelihood of residents in watersheds. JICA implemented the “Study on Community-Based Integrated Watershed Management in Laclo and Comoro River Watersheds” (2005-2010), followed by the “Project for Community-Based Sustainable Natural Resource Management” (2010-2015). In this technical cooperation project, the implementation mechanism of CB-NRM at the village level was developed through agreement and implementation of village regulations on CB-NRM in six villages in the Laclo and Comoro Watersheds, capacity building of the implementing agencies and other relevant stakeholders, and clarification of effective procedures and stakeholders’ roles in CB-NRM. As a result, activities related to CB-NRM were carried out in the target villages, and other DPs considered utilizing CB-NRM in their rural development projects. Therefore, Phase II of the project was planned to expand the CB-NRM mechanism to the watershed level.

1.2 Project Outline

		Phase I	Phase II
Overall Goal		Community-based sustainable natural resource management (CB-NRM) is practiced in the Target Area.	CB-NRM mechanism is expanded to some of the major watersheds in accordance with the roadmap.
Project Purpose		An operational mechanism of CB-NRM at suco level is developed.	Capacities of key operational actors including NDFWM, NGOs and other stakeholders to expand the CB-NRM mechanism are enhanced.
Outputs	Output 1	Land use plans are agreed upon and implemented by local residents in	The roadmap for future expansion of the CB-NRM mechanism is

		accordance with relevant suco regulations.	formulated.
	Output 2	Capacities of the staff of the implementing agency and relevant stakeholders are enhanced to support CB-NRM.	Enabling environment is developed to enhance relevant institutions for expansion of the CB-NRM mechanism.
	Output 3	Effective processes with roles of stakeholders to support CB-NRM are identified.	Capacities of key operational actors including NDFWM, NGOs and other stakeholders are improved through actual engagement in implementation of the CB-NRM mechanism.
Total Cost (Japanese Side)		513 million yen	725 million yen
Period of Cooperation		December 2010 - February 2016 (Extended Period: November 2015 - February 2016)	August 2016 - February 2022 (Extended Period: August 2020 - February 2022)
Target Area		Laclo and Comoro Watersheds (6 villages: Faturasa, Fadabloco, and Hautoho in Remexio Administrative Post, and Tohumeta, Madabeno, and Talitu in Laulara Administrative Post, Aileu Municipality)	Laclo and Comoro Watersheds (9 villages: Fahisoi-L, ³ Manucasa, and Fatrilau in Liquidoe Administrative Post, Fahisoi-R and Maumeta in Remexio Administrative Post, Fatisi, Bocololo, and Cotelau in Laulara Administrative Post, Aileu Municipality, and Dare in Vera Cruz Administrative Post, Dili Municipality)
Implementing Agency		National Directorate of Forestry, ⁴ Ministry of Agriculture and Fisheries.	National Directorate of Forest and Watershed Management, ⁵ Ministry of Agriculture and Fisheries.
Other Relevant Agencies/ Organizations		None.	None.
Consultant in Japan		Forestry Agency, Nippon Koei Co., Ltd.	International Development Center of Japan Inc., Nippon Koei Co., Ltd.
Related Projects		[Technical Cooperation] “The Study on Community-Based Integrated Watershed Management in Laclo and Comoro River Basins” (2005-2010), “Support for Economic Activities of Women in Rural Areas” (2013-2018) (JICA Partnership	[Technical Cooperation] “Project for Community-Based Landscape Management for Reduction of Deforestation and Strengthening of Climate Resilience of Local Livelihoods in the Priority Watersheds” (2022-2027)

³ Since there are two villages with the same name, Fahisoi, they are distinguished as Fahisoi-L in Liquidoe Administrative Post and Fahisoi-R in Remexio Administrative Post in this report.

⁴ In 2014, the National Directorate of Forestry split into the National Directorate of Forest and Watershed Management and the National Directorate of Forest Conservation.

⁵ In 2023, the Ministry of Agriculture and Fisheries was reorganized into the Ministry of Agriculture, Livestock, Fisheries and Forestry, and the National Directorate of Forest and Watershed Management was restructured as the National Directorate of Forest, Watershed and Mangrove Area Management.

	Program) [Grant Aid] “Forest Preservation Program” (March 2010)	
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Column 1. What is CB-NRM?

CB-NRM refers to the intervention process designed to strengthen village residents’ capacity to understand the current status of their village’s natural resources--forests, water, and land--and to conserve and manage them sustainably. The key activity in establishing the mechanism is the formulation of the Future Land Use Plan (Participatory Land Use Planning [PLUP]), which consists of two main stages--PLUP and the formulation of village regulations--with a total of eleven steps. In this project, after identifying the current situation of natural resources and land use in the target villages, support was provided for PLUP. Members of the PLUP working group included village council members, traditional leaders called Lia Nain, and church representatives, among others. The working group conducted field walks through the village, mapping the village and sub-village boundaries, roads, rivers, schools and other facilities, traditional sacred sites, forest areas, and grazing areas. Based on this present land use mapping, discussions were held on the protection of closed forests, rehabilitation and productive use of degraded forests, and conversion of shifting slash-and-burn farming areas into permanent farming areas, which led to the formulation of the future land use plan (Photo 1). Following these activities, existing village regulations and customary laws were reviewed, finalized through multiple consultations with village residents, and formally disseminated within the village through the traditional ceremony. In addition, to implement the future land use plan, the project supported the implementation of Micro Programs (MPs) such as seedling production, tree planting, and farming promotion. Furthermore, the Watershed Management Councils (WMCs) were established, composed of village leaders from watersheds and sub-watersheds, as well as municipal and administrative post officials, to strengthen the capacity for resource management and adaptive management at the watershed level through regular meetings.

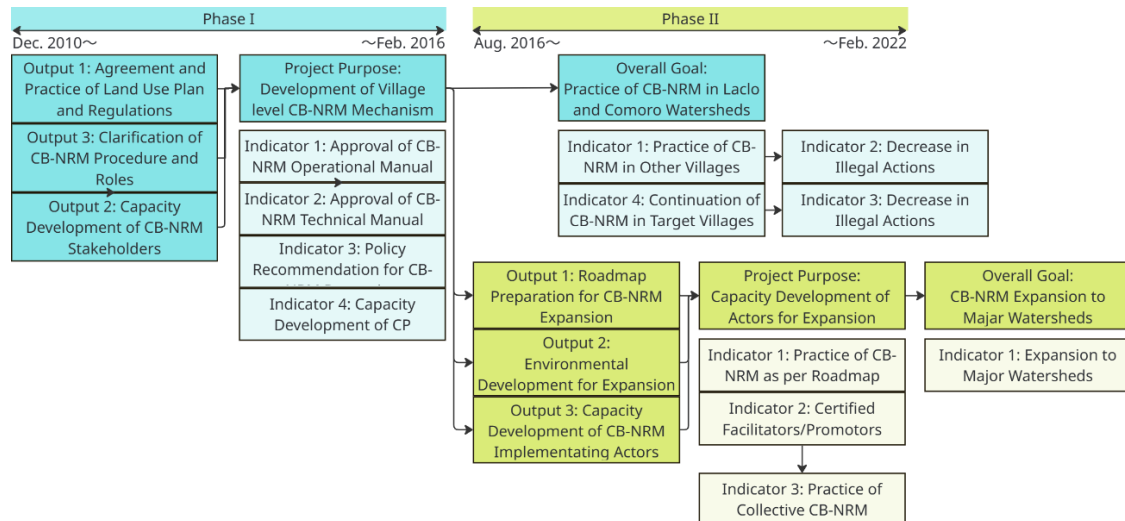


Photo 1. Future Land Use Plan developed through PLUP in Talitu Village (Photo taken by the evaluator)

(Source) Created by the evaluator based on the Project Completion Report of Phase II.

The relationship between Phase I and Phase II, which were subject to this evaluation, is shown in Figure 1. In Phase I, while carrying out CB-NRM-related activities on a trial basis in the target villages, relevant actors’ capacity was strengthened and various manuals were developed, through which the village-level CB-NRM mechanism was established. In Phase II, based on these achievements, similar support was provided for implementing CB-NRM-related activities in other villages, along with the formulation of a long-term plan (roadmap) for the expansion of the CB-NRM mechanism and support for capacity development and collaboration among stakeholders. This evaluation considers these two consecutive phases as one project and conducts an integrated evaluation. From the perspective of accountability,

the achievement levels of the project objectives in both phases were reviewed; however, the results of Phase I were referred to as reference information, whereas the evaluation of effectiveness/impact focused primarily on the achievements of Phase II.



(Source) Created by the evaluator based on the Project Completion Reports of Phase I and Phase II.

Figure 1. Logic Model of the Two Phases of the Project

Column 2. What is the Roadmap for Expansion of the CB-NRM Mechanism?

Immediately after the commencement of Phase II, the project team initiated the preparation of a roadmap for expanding the CB-NRM mechanism to major watersheds. In 2017, it was agreed with the Director General of the Directorate General of Forestry, Coffee and Industrial Plants (DGFCIP) to position the roadmap as a technical document to implement the Forestry Sector Policy, and the task force composed of directors and chiefs of directorates took the lead in its preparation. The first draft was prepared in 2018, followed by the second draft in 2019. In 2021, comments and suggestions from local stakeholders, as well as DPs and NGOs, were reflected through consultation meetings, leading to the final draft. In February 2022, the roadmap was officially completed upon the approval of the Director General. The roadmap, targeting the year 2030, presents a phased plan to expand the CB-NRM mechanism to 14 priority watersheds. It is grounded in scientific evidence, including a climate change vulnerability assessment (CCVA), gender analysis, satellite imagery analysis of forest degradation trends, and economic analysis. The roadmap outlines the goals and strategies, action plans in six areas (expansion and dissemination, watershed management, community forestry, public awareness, institutional and capacity development, and project management and M&E), implementation arrangements, cost estimates, and indicators.

(Source) Project Completion Report of Phase II.

1.3 Outline of the Project Completion Report

1.3.1 Achievement Status of Project Purpose at the Project Completion

The achievement status of the Project Purpose of Phase II at the time of project completion is to be explained in 3.2.1.1 (2).

1.3.2 Achievement Status of Overall Goal at the Project Completion (Including other impacts.)

The Overall Goal of Phase II was that the CB-NRM mechanism would be practiced in 14 watersheds by 2030 in accordance with the roadmap. Although no quantitative target for the number of practicing villages was set in the indicator, the roadmap aimed to introduce the mechanism in 317 villages. By the time of project completion, CB-NRM-related activities were implemented in 84 villages through the support of JICA and other DPs, and the implementation of the succeeding project covering 74 additional villages was already decided. On the other hand, the achievement of the Overall Goal by 2030 was considered uncertain and could not be regarded optimistically.⁶

1.3.3 Recommendations from the Project Completion Report

For the CB-NRM mechanism to be practiced across all priority watersheds, it was considered essential that, in addition to JICA's succeeding project, support from other DPs and the implementation of CB-NRM-related activities be promoted under the initiatives of the government of Timor-Leste and local governments. The roadmap was expected to serve as the implementation plan for this purpose, for which the Phase II project team made the following recommendations for the implementation of the roadmap:

- In implementing the succeeding project, utilize human resources with knowledge and experience of the CB-NRM mechanism, strengthen PLUP and WMC activities in collaboration with municipalities and administrative posts, and make effective use of the government co-financing budget.⁷
- Regarding support from other DPs, identify pipeline projects of relevant institutions and submit applications to international funding schemes.
- Mainstream PLUP in local development administration, pilot the municipal development plans utilizing PLUP.

2. Outline of the Evaluation Study

2.1 External Evaluator

Junko Noguchi, Foundation for Advanced Studies on International Development

2.2 Duration of Evaluation Study

This ex-post evaluation study was conducted with the following schedule.

Duration of the Study: October 2024 - February 2026

Duration of the Field Study: April 29th - May 15th, 2025, July 28th - August 1st, 2025

⁶ Project Completion Report of Phase II.

⁷ Budgeted to be co-financed in addition to the funds from GCF.

2.3 Constraints During the Evaluation Study

Two months after the completion of Phase II, the “Project for Capacity Development on Landscape Management for Reducing Deforestation and Enhancing Climate Resilience in Priority Watersheds” (hereinafter referred to as the “JICA/GCF Project”; 2022-2027) commenced. The JICA/GCF Project has been implemented as one of the initiatives supporting the Overall Goal of Phase II, namely, the expansion of the CB-NRM mechanism. Part of the indicator for the Overall Goal of Phase II (the number of villages where the CB-NRM mechanism has been put into practice) is expected to be achieved through the implementation of CB-NRM activities in the target villages of the JICA/GCF Project. In view of the objectives and nature of the JICA/GCF Project, it was difficult to strictly verify the continuation of the effects of Phase II independently from this succeeding project.

3. Results of the Evaluation (Overall Rating: B⁸)

3.1 Relevance/Coherence (Rating: ④⁹)

3.1.1 Relevance (Rating: ④)

3.1.1.1 Consistency with the Development Plan of Timor-Leste

From the time of the ex-ante evaluation of Phase I to the completion of Phase II, the project’s objectives of developing and expanding the CB-NRM mechanism were consistent with both the national development policy and the forest sector policy of Timor-Leste. The *Strategic Development Plan* (2011-2030) states that, to achieve the national goal of becoming a middle-income country and eradicate extreme poverty by 2030, the Government “will take actions to ensure the sustainable management of natural resources and the environment.” As for the forest sector, the *Forest Sector Policy* (2009) set six policy goals, and the CB-NRM mechanism developed and promoted under the project contributes to three of them: forest conservation, participation of communities and the private sector in forestry development, and watershed management. In the revised *Forest Sector Policy* (2017), PLUP was positioned as an effective means for community-based forest and watershed management as well as for forest rehabilitation and land restoration.

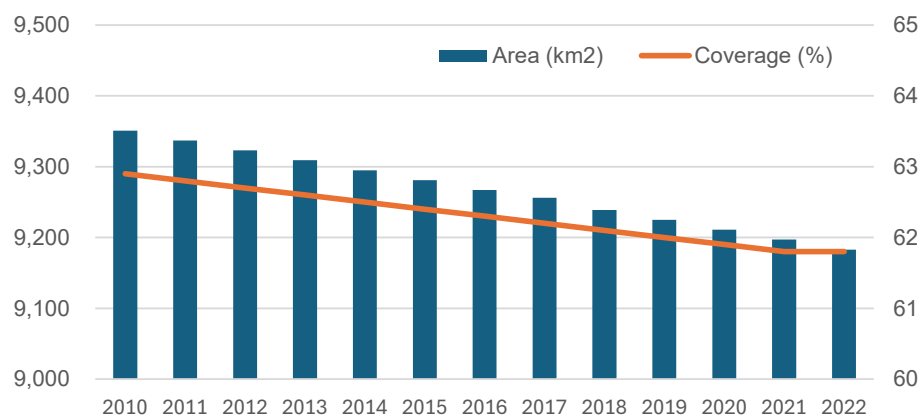
The Phase II project team participated in the revision process of the *Forest Law* and the *Forest Sector Policy*, supported by the Food and Agriculture Organization of the United Nations (FAO), and introduced the concept and significance of the CB-NRM mechanism. As a result, PLUP was incorporated in the revised policy as an effective approach. This collaboration toward the achievement of the Overall Goal—nationwide expansion of the CB-NRM mechanism—was strategically significant. Moreover, the timely and proactive approach of engaging in the policy revision process at the right moment can provide useful insights for other projects.

⁸ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

⁹ ④: Very High, ③: High, ②: Moderately Low, ①: Low

3.1.1.2 Consistency with the Development Needs of Timor-Leste

From the time of ex-ante evaluation of Phase I to the completion of Phase II, the project was consistent with the development needs of Timor-Leste. Even before the planning of Phase I, the decrease in forest area had been a serious issue. In 2010, the total forest area was 9,351 km² with a coverage rate of 62.9%, but both figures continued to decline until 2022, reaching 9,183 km² and 61.8%, respectively (Figure 2). The main causes of deforestation were reported to be forest fires, slash-and-burn farming, and illegal logging, all of which were attributed to inappropriate natural resource management and economic activities by village residents. Furthermore, forest degradation caused soil erosion, landslides, and flash floods, which negatively affected residents' livelihoods in the watersheds. The Project promoted agricultural practices in line with sustainable natural resource management and village regulations prohibiting illegal logging and other unlawful activities, aligning with the need to reduce deforestation. The Laclo Watershed serves as a major rice production area in its downstream irrigation zone, and the Comoro Watershed functions as the main water supply source for Dili City. Both of the selected watersheds were important in Timor-Leste.



(Source) World Bank Open Data.

Figure 2. Forest Area and Coverage Rate

3.1.1.3 Appropriateness of the Project Plan and Approach

The project plan and approach were appropriate in both phases. Phase I was designed based on the results of the preceding development study. As shown in Figure 1, the procedures and roles of the CB-NRM mechanism were clarified, PLUP and village regulations were formulated in a participatory manner in the target villages, and MPs were implemented according to each village's potential and needs. Through the pilot implementation of MPs, stakeholders' capacities were strengthened, and various manuals for practicing the CB-NRM mechanism were developed and compiled into the CB-NRM mechanism. The project design was therefore logical, and the outputs and effects were achieved as planned. Phase II adopted a similar project design, but incorporated

improvements based on the lessons learned from Phase I, such as creating an enabling environment and developing a roadmap to facilitate the dissemination of the CB-NRM mechanism. Although the original plan included analysis of the external funding required to scale up the mechanism, the actual application for the Green Climate Fund (GCF) was added as an activity, which led to its approval within the project period. This ensured the financial basis for the expansion of the mechanism, and it is considered an appropriate modification to the Phase II plan.

Regarding consideration for “marginalized people,” the ex-ante evaluation raised a concern that poor farmers and women might face difficulties participating in MP activities. However, according to the project experts, NDFWMAM, and the NGOs supporting MP implementation, such issues did not materialize. In practice, the project’s approach encouraged broad participation of village residents in PLUP, village regulation formulation, and MP selection, with some discussions conducted separately for men and women. There was no evidence that any particular group faced barriers to participation or experienced disadvantages in Phases I and II. Details are provided in Column 4.

3.1.2 Coherence (Rating: ③)

3.1.2.1 Consistency with Japan’s ODA Policy

At the time of planning for Phase I, one of the priority areas for Japan’s ODA in Timor-Leste was agriculture and rural development, which included “support for the productivity improvement in the agricultural area, the improvement of market access, and forest conservation closely linked to rural development.”¹⁰ Likewise, the *Country Assistance Policy for the Democratic Republic of Timor-Leste* (2012) identified agriculture and rural development as one of the priority areas, stating that Japan would “extend support for improving productivity and food self-sufficiency and for promoting agribusiness in the agricultural sector as a major industry, to promote employment, reduce poverty, and ensure food security.” Therefore, this project, which aimed to enhance upland agricultural activities and improve livelihoods through CB-NRM, was consistent with Japan’s ODA policy at the time of the ex-ante evaluation of both phases.

3.1.2.2 Internal Coherence

Collaboration or coordination between the project and other JICA interventions was not clearly planned at the time of ex-ante evaluation of Phase I. However, during the project period, several forms of collaboration were realized, and the following positive effects exceeded expectations. First, through the JICA Grassroots Technical Cooperation Project, “Support for Rural Women’s Economic Activities” (2013-2018), women’s groups in the target villages received training in hygiene management, food processing and quality improvement, and marketing. As a result, the women’s group in Fadabloco Village

¹⁰ Ministry of Foreign Affairs of Japan (2011) *ODA Databook*.

acquired processing techniques for products such as passion fruit jam, herbal tea, and spicy citrus paste. They became official members of the “Aroma Timor¹¹” brand developed under the same project and have continued to supply passion fruit jam to the brand up to the time of the ex-post evaluation (Photo 2). Second, some women’s groups from the Phase I target villages produced and sold products made from local natural resources, such as dried sweet potatoes, pickles, and recycled bags, through the activities of a JICA volunteer, making them available in local shops.



Photo 2. Jams and other products manufactured by the women’s groups of Fadabloco and sold at the café in Dili (Photo taken by the evaluator).

3.1.2.3 External Coherence

Collaboration or coordination between the project and other DPs was not planned at the time of ex-ante evaluation of Phase I, but during the project period, the following collaborative activities were carried out, and synergistic effects were confirmed. First, under the “Forest Preservation Program” (Program Grant Aid for Environment and Climate Change of the Ministry of Foreign Affairs of Japan; March 2010), GIS training was conducted for the personnel of the National Directorate of Forestry, and forest cover maps using satellite imagery were created between 2011 and 2013. The forest cover data were utilized during Phase I in developing policy recommendations and drafting a ministerial order, and the equipment provided under the grant aid project was also used. At the time of ex-ante evaluation of Phase II, it was expected that the outputs of the “Forest Preservation Program” would continue to be utilized. As in Phase I, the equipment and analytical data provided under that project were also used in the implementation of Phase II activities. Second, the Australian Agency for International Development and the Australian Centre for International Agricultural Research were implementing a nationwide project entitled “Seeds of Life” (SOL; 2000-2016), which aimed to improve food security through the selection of high-yield crop varieties and the establishment of seed distribution systems. Through collaboration with this project, seminars on quality seed production were held in the target villages, and improved seeds of maize and peanuts, as well as sowing materials, were provided for demonstration plots under the MPs. From Phase I, support was also provided for conducting PLUP in the villages covered by SOL. Furthermore, beyond SOL, other DP projects, including the European Union (EU)’s “Rural Development Program (RDP) Phase IV” (2011-2015), utilized the CB-NRM implementation manuals developed by this project, and the manuals were subsequently revised based on feedback from these DPs.

¹¹ Aroma Timor means “the scent of Timor.”

Also in Phase II, collaboration was implemented with EU's RDP and a similar project of the United States Agency for International Development (USAID), which had effects more than expected. From the beginning of the project, information sharing and coordination were carried out with other DPs to foster dissemination of the CB-NRM mechanism. First, as described earlier, the project team participated in the revision process of the *Forest Law* and *Forest Sector Policy* supported by FAO. By introducing the concept and significance of the CB-NRM mechanism, PLUP was positioned in the revised policy as an effective approach. The complementarity between FAO's community forestry initiatives and the CB-NRM mechanism was also discussed, and community forestry was incorporated into the roadmap. Second, the German Society for International Cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit: GIZ) and EU were implementing the "Global Climate Change Alliance+" (2000-2020), focusing on climate change response. GIZ showed interest in PLUP, and sharing the common understanding that the CB-NRM mechanism contributes to both climate change mitigation and adaptation, this project integrated CCVA into PLUP to further improve it. Third, this project invited not only GIZ but also USAID, FAO, and the United Nations Development Programme to observe PLUP activities and organized training sessions involving 35 staff members from 20 domestic NGOs, besides these DPs, who were expected to be future implementing partners of the CB-NRM mechanism through their participation in CB-NRM introduction activities in the target villages. This training aimed to promote the wider dissemination of the CB-NRM mechanism in future projects.

Japan, as a signatory to the United Nations Framework Convention on Climate Change, has expressed its responsibility to contribute to climate change mitigation and adaptation, not only domestically but also in developing countries. The CB-NRM mechanism directly contributes to forest conservation, thereby reducing greenhouse gas emissions caused by deforestation and degradation. Moreover, the support provided through MPs for improving agricultural techniques and livelihood improvement contributes to strengthening village residents' resilience to climate change. In this regard, the project can be regarded as having contributed to the international framework on climate change.

In light of the above, the project is relevant with the development policies and needs of Timor-Leste and Japan's ODA policy. The project plan and approach were appropriate. Additionally, the project was implemented in collaboration and coordination with other JICA projects and DPs, which had more effects than expected. Therefore, its relevance and coherence are very high.

3.2 Effectiveness and Impacts¹² (Rating: ③)

3.2.1 Effectiveness

3.2.1.1 Achievement of Project Purpose

(1) Phase I

In the six target villages, CB-NRM-related activities, including PLUP, formulation and agreement of village regulations related to natural resource management, and implementation of MPs, were carried out through facilitation by contracted NGOs. Through these activities, the capacities of the counterpart personnel were strengthened, and based on this implementation experience, the operational manual and the technical manual were developed. Recommendations were then compiled to serve as a model for future dissemination, and it is judged that the Project Purpose—development of the CB-NRM implementation mechanism—was achieved (Table 1).

Table 1. Achievement of the Project Purpose (Phase I)

Project Purpose	Indicator	Actual
An operational mechanism of CB-NRM at suco level is developed.	1. By the Project end, an operational manual of CB-NRM for the Target Area, which clarifies the procedures for implementation of CB-NRM at village level as well as roles/responsibilities of the stakeholders, is approved by Director General (DG) of MAF.	(Achieved.) In October 2015, the operation manual was approved by the DG of the Ministry of Agriculture and Fishery (MAF). The manual introduces: i) the process for introduction and establishment of the CB-NRM mechanism at the village level, ii) institutional framework for establishment of the CB-NRM mechanism, and iii) roles and responsibilities expected to be borne by key players/actors in the process.
	2. By the Project end, technical manuals on CB-NRM micro project related techniques for the Target Area are approved by DG of MAF.	(Achieved.) In October 2015, the technical manuals were approved by DG of MAF. The manuals are: Vol. 1: Seedling Production and Tree Planting, Vol. 2: Sustainable Upland Farming Promotion, and Vol. 3: Income Generating / Livelihood Development.
	3. By the Project end, the draft policy recommendations to support and promote CB-NRM in the Target Area are endorsed by DG of MAF for approval by Secretary of State for Forest and Nature Conservation.	(Achieved.) In July 2015, policy recommendations were endorsed by DG for approval by the Minister of MAF.
	4. By the Project end, on average more than 75 % of the Project Personnel of NDF and MAF reach	(Achieved.) According to the questionnaire answers to all the active counterparts (11 counterparts) engaged in

¹² When providing the sub-rating, Effectiveness and Impacts are to be considered together.

	at least the second best level of five (5)-level evaluation rating set by the Project for the items identified in the respective capacity development plans, which are in line with their roles/responsibilities in CB-NRM.	the project activities, more than 80 % of them (nine counterparts out of 11) got more than the second-best accuracy rate (more than 60 %) of five-level score range.
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(Source) Project Completion Report of Phase I.

Column 3. What is Tara Bandu?

Tara Bandu is a customary law practiced by communities in Timor-Leste. It represents a community-based system of norms established through residents' consensus, aiming to manage natural resources and maintain social order. The term derives from the local language, in which Tara means "to hang" and Bandu means "prohibition"; together, Tara Bandu signifies the public announcement of prohibitions (Photo 3).¹³ The practice predates the Portuguese colonial era and has long been part of village society. Although it declined during the Indonesian occupation, Tara Bandu has been reintroduced in many areas since the restoration of independence to reestablish degraded natural resources and promote social reintegration in post-conflict communities. When implemented, village regulations are discussed and agreed upon among residents under the leadership of Lia Nain and the village leader and formally declared to the entire village through a ritual ceremony. Tara Bandu is deeply rooted in the villages' cultural values and spiritual beliefs, making ceremonial enforcement an essential component of the process. The sacrifice of animals is believed to strengthen the spiritual covenant with the natural spirits inhabiting the environment.



Photo 3. Decorative Hanging Ornament Displaying the Village Regulations during the Tara Bandu ceremony in a target village of JICA/GCF Project (Photo from JICA)

In this project, the future land use plan was prepared through the PLUP process. In each village, the village regulations, including the future land use plan, were reviewed and finalized, then formally shared, endorsed, and enacted through the traditional ceremony of Tara Bandu.

(Source) Created by the evaluator based on the Project Completion Report of Phase II, JICA internal documents, interview with experts of the project, Miyazawa, Naori (2012) "The Role of Civil Society in Post-Conflict Environmental Resource Management: A Case Study of Community Organizations in East Timor", *International Politics* No. 169, edited by the Japan Association of International Relations.

(2) Phase II

The Project Purpose of Phase II was also achieved (Table 2). The roadmap for the expansion of the CB-NRM mechanism was developed, and an enabling environment was established. Capacity building of key actors was conducted through the implementation

¹³ JICA website. URL: https://www.jica.go.jp/oda/project/2005105/news/1535990_47067.html (Accessed on September 1st, 2025.)

of CB-NRM-related activities in the new targeted villages. In addition to natural resource management at the village level, watershed conservation initiatives were undertaken through the WMCs. Therefore, it was concluded that key actors' capacities were enhanced toward the expansion of the CB-NRM mechanism, thereby achieving the Project Purpose.

In Phase II, village regulations and PLUPs were formulated in the nine target villages, and traditional Tara Bandu ceremonies were conducted. In seven of these villages, MPs were implemented based on the future land use plans. In the remaining two villages, only PLUP and village regulation formulation were supported. As many DPs and NGOs showed strong interest in PLUP, these activities were conducted as part of on-site training for them.

Phase II began approximately six months after the completion of Phase I, which provided many advantages as a succeeding project. For instance, during the implementation of CB-NRM-related activities under Phase II, residents from the target villages visited Phase I villages and received explanations about PLUP and MPs. This experience also offered opportunities for Phase I members to take pride in sharing their experiences, thereby enhancing their sense of ownership. For the project team, it served as an opportunity to monitor the continuity of effects from the preceding phase. In addition, some of the equipment, such as vehicles and office devices used in Phase I, were continuously utilized in Phase II, which facilitated a smooth start-up of activities.

Table 2. Achievement of the Project Purpose (Phase II)

Project Purpose	Indicator	Actual
Capacities of key operational actors including NDFWM, NGOs and other stakeholders to expand the CB-NRM mechanism are enhanced.	1. The activities in the Project Sites and/or other watersheds are implemented as part of the roadmap.	(Achieved.) PLUP and other CB-NRM activities were implemented not only by the project but also by other DP Projects such as WB and EU in approximately 80 villages in the 14 watersheds targeted by 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.	(Achieved.) 77% (27/35) of DP and NGO OJT participants were qualified as CB-NRM facilitators. And 57% (20/35) were engaged in CB-NRM activities after the training. Regarding NDFWMAM and Aileu counterpart officials, 82% (14/17) were qualified as CBNRM technical coordinators by the capacity assessment on understanding of CB-NRM and monitoring. And 53% (9/17) were engaged in CB-NRM activities.
	3. Collective actions for forestry and watershed management are undertaken by communities which have introduced the CB-NRM mechanism by the Project	(Achieved.) All of the target nine villages conducted natural resource management based on village regulations or municipal regulations. Noru WMC made a 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 and facilitated collaboration among the member villages, such as awareness raising on the danger of cigarette residues as a cause of forest fire, by asking bus companies for cooperation. Bemos WMS planted around 32,000 trees from 2019 to 2022. They also organized their monitoring meeting when their own budget was available.
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(Source) Project Completion Report of Phase II.

Thus, this project achieved its purpose.

Column 4. Was Nobody Left Behind from MPs?

MPs were selected through discussions among village members, mainly by the Village Council. In addition, opportunities to participate in the selection process were always provided to those residents who wished to join. The shortlist of MP proposals was prepared based on the results of discussions held during PLUP. In the selection process, separate discussions were organized for men and women, and priority MPs were identified for each group, from which one or two final MPs were selected as below. In selecting MPs, their potential contribution to improving village livelihoods and conserving important local resources was taken into consideration.

- Sustainable Upland Farming Promotion with Community-Based Seed Extension MP
- Income Generating/Livelihood Development MP (Women's Group)
- Seedling Production and Tree Planting Promotion MP
- Sustainable Utilization of Backyard/Permanent Farm MP

Sub-village-level MP groups were organized in each village. Each group provided space for demonstration plots and nurseries, where technical training was conducted. To become a registered MP member (one person per household), three conditions had to be met: (1) actual residence in the village, (2) possession of land where MP activities could be practiced, and (3) willingness to voluntarily participate throughout the MP implementation period. The requirement regarding land ownership, meaning that those without land could not participate, was necessary to ensure that participants could practice the MP activities. These conditions were explained in advance. Neither the NGOs nor the project team had information on how many landless residents lived in each village. On the other hand, as it is customary in Timor-Leste for family members, relatives, and neighbors to help each other with agricultural work, those who were interested in the MP activities were still able to learn from and observe them. Each MP group consisted of about 40 members at the sub-village level. When the number of participants exceeded this, arrangements were made to accept a small number of additional members from neighboring sub-villages.

◆ Did Poor Families Have Equitable Access to MP Activities?

It was not possible to verify whether residents from poor households were able to participate equitably in MP activities. The project team had no information on residents' poverty levels, and

the NGOs were also not aware of this situation. If the lack (or small size) of land is interpreted as one aspect of poverty, it would mean that such households could not participate in MP, as mentioned above.

During the ex-post evaluation field survey, interviews were conducted with 13 residents (one from each of the 13 villages where MPs were implemented) who did not participate in MP activities. Only one of them cited “having too little land” as the reason. Among the 51 MP members interviewed,¹⁴ 36 said they knew someone who wanted to participate in MP activities but could not; of those, two indicated that the reason was the small size of their land.

◆ Did Women Participate Equitably in MP Activities?

It can be said that participation in MP was not influenced by gender. Gender was not a condition for participation, and women could become registered MP members if they wished. Even those who were not registered members were able to join MP-related activities. In many cases, other family members took turns participating depending on household circumstances, such as when the registered member was busy. Among 20 female members interviewed in the 13 villages, 13 participated in PLUP, 20 in MP selection discussions, and 20 in technical training. Only one woman recalled experiencing inequality during the MP process, saying, “Men tend to speak more in meetings. Women’s roles are considered to be housework.”

All 31 male members interviewed responded that there was no unfairness in the process. During the MP selection process, gender-segregated discussions were organized as part of the procedure. One woman reported that her husband initially opposed her participation in MP activities, saying that she should not participate if there were no direct monetary benefits. However, she decided to join because she wanted to put what she had learned into practice. Another member mentioned that, although she herself was not opposed by her husband, some women could not participate in fieldwork because their husbands believed that such physically demanding tasks should be done by men.

According to the expert of the succeeding JICA/GCF Project, gender-based role divisions exist in Timor-Leste as in many other countries, and domestic violence is sometimes discussed at village meetings. However, no specific cases were identified in which women were discouraged from participating in MP activities simply because of their gender.

◆ Were There Any Other People Who Had Difficulty Participating in MP Activities?

Interviews were conducted with 13 residents who did not participate in MP activities and 37 MP members who knew someone who did not participate. The most frequently mentioned reasons were that they lived far from the activity site located at the center of the sub-village (eight people) and that they had no record of residence in the sub-village (seven people) (Table 3). Having no residence was mainly due to migration to the capital or other towns for work. In addition, they were not interested in group work or they had expected to receive cash or other benefits, suggesting that information about MP might not have been sufficiently disseminated to all residents

¹⁴ Interviews were conducted with 51 MP members and 13 non-participants across the 13 villages where MPs were implemented. The interviewees were selected by the village leaders. Interviews were carried out in the village centers and conducted separately for men and women. Among the 51 MP members, there were 31 men and 20 women. Their age distribution was as follows: 12 participants aged 30-39, 10 aged 40-49, 17 aged 50-59, and 12 aged 60 or older. Among the 13 non-participants, there were 8 men and 5 women. Their ages were as follows: 2 were under 29 years old, 9 were 30-39, and 2 were 40-49.

beforehand. In the ex-post evaluation, no specific cases in which individuals were excluded from participation due to particular attributes were confirmed. On the other hand, the results of this survey cannot be generalized to represent the situation of all target villages. As one member pointed out, “Domestic violence cases cannot be known unless someone tells us,” this analysis may not have sufficiently captured information or perspectives from women or other groups who were unable to participate.

For residents who could not participate in MP activities, information and technical knowledge were shared through conversations among village members and through collective work with family members, relatives, and neighbors.¹⁵ Information sharing was also facilitated through the extension workers assigned to each village, and it is considered that measures were taken to ensure that even those who did not participate in MP were able to access such information.

Table 3. Reasons for not participating in MP activities

(Unit: Persons)

Reasons for Non-Participation	
Living far from the activity site.	8
Not residing in the sub-village.	7
Not interested in group work.	4
Expected to receive cash or materials.	4
Unable to work due to old age or disability.	4
Busy with non-farming work.	4
Having limited land.	3
The group quota was full.	2
Already familiar with techniques introduced.	2
Busy with household chores (women).	2

(Source) Interview with target village residents.

(Note) Multiple answers were allowed. In addition, some respondents said that they did not know about MP or thought that participation would require money.

(Source) Interview with NDFWMAM, NGOs, MP members of the target villages, village leaders, and the experts of the project.

3.2.2 Impacts

3.2.2.1 Achievement of Overall Goal

(1) Phase I

In Phase I, the CB-NRM mechanism was developed through pilot implementation of CB-NRM-related activities in the target villages, and the Overall Goal was defined based on the practice of these activities (Logic Model in Figure 1). Among the indicators set in the final version of the Project Design Matrix (PDM), two were used for this evaluation: implementation of CB-NRM-related activities in new villages within the target area (Indicator 1) and continuation of MPs in the target villages (Indicator 4). The decrease in forest fires, illegal cutting, and illegal grazing (Indicators 2 and 3) were effects of CB-NRM and therefore examined as other impacts.

It is judged that the Overall Goal of Phase I has been mostly achieved. Under Phase II, CB-NRM activities were implemented in nine new villages in the target area and have continued up to the time of the ex-post evaluation. In addition, CB-NRM-related activities supported by other DPs were implemented in other villages, indicating that the mechanism was further expanded, although the continuation status of those villages could not be confirmed. According to MP members in the Phase I target villages, about 50% to

¹⁵ In Timor-Leste’s local communities, there is a mutual aid system for collective work called “halosan.”

100% of the MP members have continued MP activities in their sub-villages. The supporting NGOs reported that approximately 80% to 100% of the members have continued MP activities. The main reasons cited for discontinuation were engagement in non-agricultural work and migration out of the village.¹⁶

Table 4. Achievement of the Overall Goal (Phase I)

Overall Goal	Indicator	Actual
CB-NRM is practiced in the Target Area.	1. CB-NRM activities following the operational mechanism developed by the Project are implemented in at least 5 new sucos in the target area by the end of 2018.	(Achieved.) CB-NRM activities have been practiced in 9 new villages in the target area.
	4. In all of 6 sucos of the Project sites, more than 70% of the registered beneficiaries at the end of 2018 engage in the micro program activities, such as sustainable upland farming and reforestation.	(Mostly Achieved.) About 50% to 100% of the members have continued MP activities in the target villages.

(Source) Project Completion Report of Phase II, interview with MP members of the target villages.

(2) Phase II

As in Phase I, the Overall Goal of Phase II was the implementation of CB-NRM-related activities, aiming for wider and longer-term dissemination in line with the roadmap toward 2030. Although the final version of the PDM does not specify numerical targets for 2030 or for the ex-post evaluation timing (2025), it states that the expansion should proceed “in accordance with the roadmap.” Therefore, the targets set in the roadmap were used for verification. The roadmap specifies a target of 317 villages within 14 priority watersheds by 2030 and a short-term target of “twice the number in 2021” by 2024. Given that the actual number of villages at the project completion (February 2022) was 84, the achievement at the time of ex-post evaluation was compared against the expected 168 villages, and it was projected that the 2030 target would be achieved.

As far as directly confirmed in the ex-post evaluation as of August 2025,¹⁷ CB-NRM-related activities have been implemented in 169 villages across 13 watersheds (Tables 4 and 5), exceeding the short-term target set for 2024. Between 2022 and 2025, CB-NRM-related activities were newly implemented in 85 villages, leaving 148 villages to be reached by 2030. Under the succeeding JICA/GCF Project, an additional 45 villages are planned to be covered by 2027. Assuming that the current pace of implementation continues, achievement of the 317-village target by 2030 is considered feasible; however, it should be noted that such progress depends largely on continued support from DPs and

¹⁶ Interviews with NGOs.

¹⁷ In addition to those directly confirmed during the ex-post evaluation, several other DPs and NGOs are also implementing projects that include CB-NRM-related components, according to NGOs.

NGOs. Therefore, the Overall Goal is expected to be mostly achieved.

Table 5. Achievement of the Overall Goal (Phase II)

Overall Goal	Indicator	Actual
CB-NRM mechanism is expanded to some of the major watersheds in accordance with the roadmap.	The CB-NRM mechanism is implemented in the 14 watersheds in line with the roadmap by 2030.	(Expected to be Mostly Achieved.) CB-NRM-related activities have been implemented in 169 villages in 13 watersheds by August 2025.

(Source) Interview with JICA/GCF Project experts, DPs and NGOs supporting CB-NRM implementation.

Table 6 shows the breakdown of villages where CB-NRM-related activities have been implemented within the 14 priority watersheds. After the completion of Phase II, several organizations besides the JICA/GCF Project, including Catholic Relief Services (CRS), Adventist Development and Relief Agency (ADRA), World Vision (WV), and Conservation International (CI), have incorporated CB-NRM-related activities into their respective projects. The CRS, ADRA, and WV projects also include villages located outside the 14 priority watersheds. However, the project staff of these NGOs were not aware of the existence of the roadmap. Although the roadmap was presented during consultation meetings with other DPs and NGOs under Phase II, this lack of awareness is presumed to be due to staff turnover thereafter. When the contents of the roadmap, including the analysis of the current situation in Timor-Leste, selection of priority watersheds, and action plans for dissemination, were explained to them, they expressed strong interest. On the other hand, NDFWMAM has not referred to the roadmap, either. As mentioned earlier, the roadmap was positioned as a technical document for policy implementation. Its institutionalization through a ministerial order or internal directive had been planned, but no progress was made after the proposal from the project team of Phase II. Consequently, after project completion, the implementation of activities listed in the roadmap and monitoring based on its targets have not been conducted.

Table 6. Expansion of the CB-NRM Mechanism in 14 Priority Watersheds

(Unit: Villages)

	14 Priority Watershed	By Phase II Completion				From Phase II Completion to August 2025				
		WB/SAPIP	EU/PISAF	JICA 1&2	Other DP	JICA/GCF	CRS	ADRA	WV	CI
Western	Tono	6	0	0	0	0	0	0	0	0
	Tafara	0	0	0	1	4	0	0	4	0
	Comoro	0	0	6	1	11	0	0	4	4
	Lois	18	0	0	0	3	0	0	16	1
	Be Lulic	12	0	0	0	1	0	0	1	0
Central	Laclo	2	1	11	5	14	0	0	10	0
	Caraulun	4	0	0	1	8	0	0	0	0
	Quelan	0	0	0	0	0	0	0	0	0

Eastern	Sahen	0	5	0	1	1	0	0	0	0
	Dilor	0	3	0	2	1	1	1	0	0
	Cuha	0	0	0	0	0	6	5	0	0
	Seisal	0	4	0	6	0	11	4	6	0
	Irabere	2	5	0	3	0	9	0	1	6
	Iralaloro/Vero	0	1	0	0	0	2	0	0	0
Cumulative Total		44	19	17	20	43	29	10	42	11
Net Total (2022)		84								
Target Total (August 2025)						29	25	7	36	10
Net Total (August 2025)		169 (Net total excluding the overlaps.)								

(Source) Project Completion Report of Phase II, interview with relevant NGOs and DPs.

(Note) Some villages extend across two or more watersheds, and some have received support from more than one project. The net number of villages was calculated after excluding these overlaps. SAPIP: Sustainable Agriculture Productivity Improvement Project. PISAF: Programa Integrado de Segurança Alimentar (Integrated Program of Food Security).

In light of the above, the project has mostly achieved its Overall Goal.

3.2.2.2 Continuity of the Project Effects

During the ex-post evaluation field survey, the continuation of MP activities was investigated in the target villages of both phases. The survey results showed that MP activities were ongoing in all villages. Soil improvement techniques using dry compost and liquid fertilizer have been widely adopted in many villages (Photo 4). Activities related to tree planting, such as preparing seedbeds, transplanting seedlings into pots, and maintaining nursery stock, have also continued (Photo 5). In addition, contour and



Photo 4. Dry compost in Manucasa Village
(Photo taken by the local consultant).



Photo 5. Seedbeds in Hautoho Village
(Photo taken by the local consultant).

terrace farming techniques on sloped land have remained in practice, with crops such as rambutan, maize, oranges, and vegetables being widely cultivated (Photos 6 and 7). These crops have been consumed at home and, in some cases, sold in village markets or urban areas such as Dili. At the same time, MP members pointed out several challenges. For example, some crops and processed products have limited market demand, making them unsuitable for large-scale production. There were also cases in which liquid fertilizer



Photo 6. Rambutan trees grown from seedlings in Tohumeta Village (Photo taken by the evaluator).



Photo 7. Terrace farming and seedbeds using the sloping land in Manucasa Village (Photo taken by the local consultant).

could not be properly stored or members could no longer continue farming due to migration or old age. Even after project completion, good practices of continued collective work and resource sharing were observed. For instance, in Madabeno Village, the demonstration plot has remained in use, and members have taken turns cultivating and managing their assigned ridges. In Tohumeta Village, members have grown seedlings and shared them with others in the village. Furthermore, in Fadabloco Village, members of a women's group have continued to collaborate in processing cassava.

When asked to evaluate the overall MP activities, 47 out of 51 members responded that they were “very satisfied” or “satisfied” (Table 7). There were no noticeable differences in satisfaction levels by gender or project phase. Those who answered “very satisfied” cited reasons such as acquiring useful techniques, increasing crop yields, and generating profits, indicating that tangible benefits contributed to higher satisfaction levels. On the other hand, members who answered “not satisfied” mentioned that the facilitator had left and the demonstration plot had been unattended. Similarly, those who responded “neither satisfied nor dissatisfied” commented that they had been satisfied with the extension worker's guidance during the project period but no longer received such support after project completion.

Table 7. Overall Evaluation of MPs (Unit: Persons)

		Very Satisfied	Satisfied	Not Satisfied	Not Satisfied at All	Neither Satisfied nor Dissatisfied
Phase I	Male	6	8	0	0	0
	Female	5	5	0	0	0
Phase II	Male	5	10	1	0	1
	Female	5	3	0	0	2
Total		21	26	1	0	3

(Source) MP members of the target villages.

During the project period, each village conducted monthly monitoring of illegal activities through facilitation by the supporting NGOs. As of the time of ex-post

evaluation, regular village meetings are held every three to six months, where not only natural resource management issues but also other matters are shared by sub-communities.¹⁸ Although the number of illegal cases is not recorded, countermeasures are discussed whenever such issues arise.

In addition, the Noru and Bemos WMCs were established, and watershed-level activities such as joint procurement of seedlings and tree planting were carried out. However, these activities have not continued after project completion, mainly because it has been difficult for the Ministry of Agriculture, Livestock, Fisheries and Forestry (MALFF) to cover expenses such as transportation and refreshments for WMC participants,¹⁹ which had been funded by the project during its implementation.

3.2.2.3 Other Positive and Negative Impacts

(1) Impacts on the Environment

Both Phases I and II were classified as Category C based on the *JICA Guidelines for Environmental and Social Considerations* (April 2010) for sensitive sectors because they were judged to have minimal undesirable impacts on the environment. The project had no negative environmental impact.

In terms of positive impacts, forest fires and illegal cutting have decreased in the target villages. Although the number of forest fires and illegal cutting cases has not been recorded by the target villages, municipalities, or administrative posts, 48 out of 51 MP members responded that illegal cutting had decreased, whereas three reported no change. All respondents answered that forest fires had decreased. Nineteen respondents cited the procedures related to village regulations as the main reason. Some members also explained a reduction in landslides and soil erosion. Many members mentioned Tara Bandu during the ex-post evaluation interviews, suggesting that the village regulations that came into effect through the traditional “Tara Bandu” ceremonies have exerted a significant influence.

(2) Resettlement and Land Acquisition

There was no resettlement or land acquisition involved in the project.

(3) Gender Equality and Marginalized People

As mentioned earlier, no one reported difficulty participating in the project’s activities due to specific attributes such as gender. Furthermore, even those who were unable to participate in MP activities were provided with measures to access related information.

As for gender-related impacts, women’s groups were formed, and technical training on food processing and related skills was conducted. As mentioned earlier, the women’s

¹⁸ Interview with the village leaders of the target villages.

¹⁹ Interview with the expert of JICA/GCF Project.

group in Fadabloco Village has continued to sell jam and cassava chips up to the time of ex-post evaluation, utilizing the techniques and networks acquired through the activities of an NGO collaborating with this project. This activity did not exist before the project, and it represented a significant change as women began to take on a role in earning income through MP activities.

(4) Social Systems and Norms, People's Well-being and Human Rights and Other Unintended Positive/Negative Impacts

Firstly, regarding MP members' perspectives on natural resource management, all 51 respondents answered that their way of thinking had "changed." The main comments indicated that, compared to before, they had started to take actions to protect natural resources and had shifted from individual, customary use toward management based on discipline and rules. Examples of the former included statements such as "We no longer enter other people's farmland without permission," "Previously, we moved from place to place for farming, but now we can cultivate near our houses," "We have come to understand that trees protect soil and water," and "Without trees, water sources dry up; we used to cut trees and burn land before sowing, but we no longer do so." Regarding discipline and norms, 16 respondents (31%) referred to village regulations when describing their change. In addition, 27 respondents (53%) made comments related to land use, water source conservation, prevention of soil erosion, or creation of terraces. Examples included "We have started to make use of previously abandoned land," "Since water flows from this area to Dili, it is necessary to protect water resources," and "We identify areas that need reforestation and protect them." Through the PLUP process, village residents came to share a common understanding of what resources and issues exist and how they should be conserved, which is considered to have directly contributed to the change in their awareness of natural resource management.

Secondly, more than half of the members (26 respondents) reported that their MP activities had led to income generation. One member stated, "Previously, animals damaged my crops, but now they don't, and I earn USD 5-10 per month from the harvest," indicating that they have gained a stable cash income. Another female member mentioned that her group has processed and sold cassava, allowing them to earn cash income that they did not have before. Several members also commented that this has enabled them to spend more on their children's education.

In addition, several members mentioned that they were now able to have healthier meals using vegetables they harvested themselves. During the field survey, many villages served homemade



Photo 8. Snacks served during the village visit in Tohumeta Village (Photo taken by the evaluator).

snacks such as steamed sweet potatoes and banana chips to the evaluator (Photo 8). It was noted that, with increased harvests, they had begun to prepare such snacks on their own instead of purchasing commercially produced ones.

This project has achieved the project purpose of developing the CB-NRM mechanism and enhancing relevant stakeholders' capacities and the overall goal of expanding the mechanism. Therefore, effectiveness and impacts of the project are high.

3.3 Efficiency (Rating: ③)

3.3.1 Inputs

3.3.1.1 Elements of Inputs

Input was provided by both the Japanese side and the Timorese side. Regarding the project cost on the Japanese side, the application to GCF was not included in the original plan of Phase II; however, it is interpreted that securing external funding, such as from GCF, was considered a necessary and effective means for expanding the CB-NRM mechanism after project completion, given the limited financial resources in Timor-Leste. It was also confirmed that the additional experts were engaged in activities related to the GCF application. Therefore, the additions related to the GCF application were regarded as a modification to the original plan, and the planned project cost was recalculated accordingly.

Table 8. Project Inputs

Inputs		Plan	Actual (Project Completion)
(1) Experts	Phase I	Participatory Natural Resource Management, Agroforestry / Sloping Agriculture, Soil Conservation, Afforestation, etc. (84.00 P/M)	Chief Advisor / Rural Development / Sloping Agriculture & Agroforestry, Deputy Chief Advisor / Participatory Natural Resource Management / Soil Conservation, Upland Farming Technologies / Livelihood Development, Forest Management, Coordinator / Assistant in Afforestation & Rural Development (6 persons) (90.73 P/M)
	Phase II	Chief Advisor / CB-NRM Mechanism, Institutional Linkage and Coordination, CB-NRM Policy, Sustainable Upland Agriculture / Livelihood Development, Forest Management, Coordinator (About 99 P/M)	Chief Advisor / CB-NRM Mechanism 1 / CB-NRM Policy, Deputy Chief Advisor / CB-NRM Mechanism 1 / CB-NRM Policy, Institutional Linkage and Coordination 1, Institutional Linkage and Coordination 2, Sustainable Upland Agriculture 1 / Livelihood Development, CB-NRM Mechanism 2 / Forest Management, GIS, Sustainable Upland Agriculture 2 / Coordinator, Watershed Management / CB-NRM Planning / Impact Assessment, Forest Biomass Assessment / Cost Estimation / Economic Assessment, Forest Biomass Assessment / Cost Estimation / Economic Analysis, Satellite Image Analysis

			/ GIS, Satellite Image Analysis / GIS 2, Satellite Image Analysis / GIS 3, Gender Analysis / Climate Vulnerability Assessment, Environmental and Social Consideration, CB-NRM Expansion (150.26 P/M)
(2) Trainees Received	Phase I	Training in Japan and third country	9 trainees received in Japan and 1 in third country (Thailand).
	Phase II	Training in Japan and third country	9 trainees received in Japan.
(3) Equipment	Phase I	Vehicle, PC, and equipment necessary for CB-NRM implementation and training.	2 vehicles, 4 motorbikes, 1 generator, 4 GPS, etc. (7.3 million yen)
	Phase II	Equipment necessary for CB-NRM implementation and training.	Equipment necessary for CB-NRM implementation and training (Motorbikes, drones, tablets, GPS, printers, PCs).
(4) Local Operational Cost	Phase I	Subcontracting cost to supporting NGOs, etc.	167 thousand yen (including the subcontracting cost to supporting NGOs, etc.)
	Phase II	No information available.	Local operational cost, equipment cost.
Japanese Side Total Project Cost	Phase I	406 million yen	513 million yen
	Phase II	617 million yen (Recalculated with the additional cost for GCF application and implementation support)	725 million yen
Timorese Side Total Project Cost	Phase I	No information available.	Counterpart personnel assignment (Project Director, Project Manager, 20 counterpart staff members) Facility/Equipment (Office space and furniture) Operational cost (USD 17,717 for monitoring expenses, nursery distribution, office utility expenses, etc.)
	Phase II	Counterpart personnel assignment (Project Director, Project Manager, counterpart staff members) Facility/Equipment (Office space in NDFWMAM, PC with GIS software, Plotter, etc.)	Counterpart personnel assignment (Project Director, Project Manager, 24 counterpart staff members) Facility/Equipment (Office space, PC with GIS software, Plotter, etc.) Operational cost (USD 130,318 for follow-up of Phase I activities, daily allowance for counterpart staff, nursery distribution for WMCs, etc.)

(Source) Ex-ante Evaluation Sheet of Phase I, Terminal Evaluation Report of Phase I, Project Completion Report of Phase I, Ex-ante Evaluation Sheet of Phase II, Project Completion Report of Phase II, JICA internal documents.

(Note) Dispatch of the experts in Phase I (90.73 P/M) was the expected cost until October 2015. P/M stands for person-month.

3.3.1.2 Project Cost

The total actual project cost for Phases I and II combined was 1,238 million yen, which slightly exceeded the planned cost of 1,023 million yen (Ratio against the plan: 121%). The main reasons for exceeding the plan were the support for establishing WMC

during Phase I, the preparation of public relations materials and simplified manuals, and the additional CB-NRM-related activities implemented in the target villages under Phase II. According to the experts of both project teams, the dispatch of experts and procurement of equipment were carried out in line with the activity plans, and NDFWMAM also commented that the Japanese side's inputs were generally appropriate.

3.3.1.3 Project Period

The total actual project period for Phases I and II combined was 128 months, slightly exceeding the planned 126 months (Ratio against the plan: 102%). The reason for the excess was the preparation of public relations materials and simplified manuals. The actual period of Phase II was as planned.

Both the project cost and the project period slightly exceeded the plan. Therefore, efficiency of the project is high.

3.4 Sustainability (Rating: ②)

3.4.1 Policy and System

The *Strategic Development Plan* (2011–2030) has remained effective at the time of ex-post evaluation. The *Forest Sector Policy* (revised in 2017) based on the *Forest Law* (revised in 2017) sets a goal of maintaining 70% of the national land as forest area by 2030. The policy positions PLUP as an effective tool for community-based forest and watershed management, as well as forest rehabilitation and land restoration. The *MAF Strategic Plan* (2021–2025) also identifies restoration of natural resources and sustainable production and management as one of its five development goals. Furthermore, in 2023, the ministerial order on CB-NRM was officially approved. This ministerial order designates the introduction of CB-NRM as one of the main programs of MALFF and instructs related directorates and municipalities to implement it. The draft of this order was proposed to the minister during Phase II, and the process for its issuance was initiated shortly before the time of project completion. Similarly, a draft ministerial order was prepared to operationalize the roadmap approved by the Director General of DGFCIP, although it has not been presented to the minister or officially issued.

Thus, the dissemination and expansion of the CB-NRM approach targeted by this project have been largely secured in terms of policy and system aspect.

3.4.2 Institutional/Organizational Aspect

The expansion of the CB-NRM mechanism has been primarily handled by the Directorate General of Forestry (DGF), restructured from DGFCIP in 2024, and its four subordinate directorates including NDFWMAM. Under NDFWMAM, there are six departments: the Department of Flora and Fauna & Ecosystem, the National Tourism Development Department, the Department of Protected Areas and Parks, the Department

of Reforestation, the Department of Watershed Management, and the Department of Coastal and Mangrove Management. Among these, the departments mainly involved in CB-NRM-related activities are the Department of Watershed Management, the Department of Reforestation, and the Department of Coastal and Mangrove Management, which had eight, 13, and four staff members respectively at the time of ex-post evaluation. Whereas MALFF managerial positions are permanent, most other staff are employed on fixed-term contracts (ranging from six months to one year). The number of personnel has been insufficient for the effective execution of duties, primarily due to delays and shortages in budget allocation, which have prevented timely staff placement. As this issue has persisted for years, it is presumed that there is little prospect for significant improvement.

Under the JICA/GCF Project, a multi-level monitoring structure has been established to promote the expansion of the CB-NRM mechanism. At the central level, a monitoring team has been formed, comprising NDFWMAM and its relevant subordinate directorates. At the municipal level, monitoring teams have been established, consisting of officers from the Municipal Agriculture Office, MALFF's forestry division, other relevant municipal departments, and forest guards. At the field level, support teams have been organized, including extension workers, forest guards, and extension coordinators. Although WMCs formed under the project have not continued, the JICA/GCF Project has planned to reestablish similar councils at the administrative post level. As of May 2025, such councils have been established in four administrative posts, namely, Basar-Tete, Railaco, Laclo, and Laclubar; these councils have been expected to function as part of the administrative post structure in the future.

At the MALFF Aileu Municipal Office, the forestry division consists of four regular forest guards (including the chief), an administrative officer, a seedling technician, and 13 contractual forest guards. According to the chief, the current number of forest officers has been insufficient to properly conduct village-level monitoring activities throughout the municipality. For village monitoring, they use either one of the two motorcycles owned by the municipality or their personal motorcycles. In addition, 35 agricultural extension workers have been assigned to villages under one-year contracts with the municipal administration office. They have provided technical assistance to farmers and handled administrative tasks such as processing seedling requests.

3.4.3 Technical Aspect

NDFWMAM is expected to supervise the projects implemented by NGOs and DPs and to take a leading role in promoting and expanding the CB-NRM mechanism. During Phase II, capacity development was conducted mainly through on-the-job training, and 14 personnel, including officers from Aileu Municipality, were certified as technical coordinators. All of them have been working at the MALFF headquarters or the forestry division in Aileu Municipality. Under the JICA/GCF Project, the project team itself plays the role of supervision. According to NDFWMAM, "monitoring" is perceived as visiting

villages after the provision of support and identifying or procuring necessary materials, rather than a process for tracking progress against set targets or revising plans. Although staff members trained under this project have continued to work in their respective offices and some have functioned as trainers in the JICA/GCF Project,²⁰ there remains concern about whether NDFWMAM can play a project management role from a long-term perspective.

As for the role of directly supporting villages, 27 facilitators, mostly members of NGOs, were certified during Phase II. Among them, at least 13 have been employed by relevant organizations or engaged in relevant activities.²¹ Also under the JICA/GCF Project, support for village-level CB-NRM activities has been entrusted to three NGOs, two of which also participated in this project. These NGOs received the manuals developed under this project, and technical training was provided at the start of their assignments. Because the JICA/GCF Project has progressed as planned in the target villages, it can be concluded that these NGOs have possessed sufficient techniques to support the CB-NRM mechanism. The agricultural extension workers assigned to each village are graduates of agricultural schools and have the technical skills required for organizing and guiding farmers, as well as for handling seedling applications.²² On the other hand, some MP members pointed out that guidance for village residents has been limited since the completion of the project.

Under the JICA/GCF Project, CB-NRM training has been provided for forestry and agriculture officers and extension workers from seven municipalities across the four target watersheds. The training program consists of three stages: introductory training, follow-up training, and refresher training. Upon completion, participants receive certificates, and the time spent in field activities is counted toward promotion or salary increment applications. The JICA/GCF Project also plans to conduct CB-NRM training for municipal staff and NGOs outside the target areas, aiming to promote broader dissemination of the mechanism.

The CB-NRM-related manuals developed under the project have been utilized in training sessions, and staff who received training in the past have continued to refer to them in their work.²³ In addition, NGOs implementing CB-NRM-related activities outside the JICA/GCF Project have downloaded and used these manuals after learning about them through the JICA Office.

3.4.4 Financial Aspect

The MALFF budget for 2025 was USD 25.77 million, representing a 16% decrease from the previous year. In addition to the budget allocated from the central government, MALFF receives budget from the Agricultural Infrastructure Fund designated for large-

²⁰ Interview with JICA/GCF Project expert.

²¹ Interview with NGOs.

²² Interview with the division office of Aileu Municipality.

²³ Interview with the division office of Aileu Municipality.

scale facility development. The fund amounted to USD 16.8 million in 2025, a 66% increase from the previous year, bringing the total budget for the agricultural sector to approximately USD 40.9 million. This accounts for 2.3% of the national budget, a share that has remained almost unchanged from the previous year and is relatively small compared with other sectors.^{24,25} The 2025 budget for DGF was USD 2.72 million, a 13% decrease from the previous year, while the budget for NDFWMAM was USD 0.47 million, a 40% decrease from the previous year (Table 9). According to NDFWMAM, this decline might be attributed to the previous year's project progress or budget execution record, although this was not certain. In 2024, NDFWMAM spent USD 30,380 for activities related to the expansion of the CB-NRM mechanism (such as staff travel expenses).²⁶ For 2025, it was planned to allocate approximately the same amount, USD 28,600.²⁷ These amounts are not sufficient to carry out the activities required for the expansion of the CB-NRM mechanism.²⁸ Over the past decade, Timor-Leste has drawn the majority of its national budget from the Petroleum Fund (83% in 2024).²⁹ According to the National Petroleum Authority, production at the Bayu-Undan oil field was suspended in June 2025. As new oil field development has faced difficulties, there are growing concerns about the depletion of the Petroleum Fund. Given such a background, a significant increase in MALFF's budget in the coming years is unlikely.

Table 9. Budgets of NDFWMAM

(Unit: 1,000 USD)

	2022	2023	2024	2025 (Plan)
Central Government	1,800,000	2,800,000	1,830,000	2,073,000
MALFF	23,592	28,435	30,694	25,570
DGF	n.a.	4,684	3,112	2,721
NDFWMAM	1,479	458	767	476

(Source) State Budget for each year, JICA internal documents.

(Note) The budget of DGF in 2023 was that of DGFCIP and included the budgets related to coffee and industrial plants prior to the organizational restructuring.

The forestry division of the MALFF Aileu Municipal Office has applied for and received an annual budget of USD 1,800 for CB-NRM-related activities. In 2024, the budget was spent on establishing firebreaks, grass cutting, and other activities. Salaries for forest guards assigned to municipalities have often been delayed by MALFF, and as of May

²⁴ The share of each sector in the total national budget is as follows: roads 11.7%, public administration 9.8%, veterans' affairs 9.5%, electricity 9.3%, education 9.2%, social protection 8.6%, health 6.2%, police 3.5%, and military 2.3%.

²⁵ Ministry of Finance (2024) *General State Budget 2025: Investment in Strategic Infrastructure, Strengthening the Economy and Improving Citizens' Welfare*, p.35.

²⁶ JICA internal documents.

²⁷ Interview with NDFWMAM.

²⁸ Interview with NDFWMAM and JICA/GCF Project expert.

²⁹ Central Bank of Timor-Leste (2025) *Timor-Leste Economic Performance 2024*.

2025, they had not yet been paid. When forest guards visit villages as part of JICA/GCF Project activities, except for certain joint monitoring meetings held at the municipal level, related expenses are generally borne by the Timorese government, although they used to receive a transportation allowance of USD 5 in cases in which transportation was unavailable from the project. The 17 forest officers bear the cost of fuel themselves when visiting villages using motorcycles provided under the project. There have been cases in which the allocated amounts are insufficient or payments are delayed. Without the budget provision for transportation and fuel expenses, it has been difficult to maintain their motivation to participate in village-level activities.³⁰ Meanwhile, salaries for agricultural extension workers assigned to each village have been paid on schedule by the municipal offices. Because they are usually recruited from the villages where they work, no transportation or fuel allowances are required.

Previously, line ministries such as MALFF had branch offices at the municipal and administrative post levels and allocated budgets directly from the headquarters to the municipalities. Since 2022, decentralization has progressed, and municipal and administrative post offices have gradually begun to determine their own budgets for project implementation. On the other hand, for the forestry sector, MALFF has continued to retain authority over personnel assignment and budget allocation because it has been responsible for the management and protection of state-owned forests.

3.4.5 Environmental and Social Aspect

At the time of project planning, no environmental or social risks were anticipated, and no such risks that could affect the continuity of the project effects have arisen as of the ex-post evaluation.

3.4.6 Preventive Measures to Risks

One of the external conditions identified during project implementation was that “the fundamental laws related to land, forestry, and decentralization should not hinder project implementation.” During Phase II, the Aileu Municipal Administration Office distributed a standardized set of village regulations to all villages within the municipality, which differed from the PLUP approach promoted by the Project. In response, the Project made efforts within the PLUP process to review the municipal regulations together with traditional and existing rules to ensure consistency with the village regulations prepared by residents. By obtaining the consent of the municipal administration office on this approach, the Project was able to proceed with the formulation and implementation of village regulations through PLUP as planned. Since then, no risks related to project implementation have arisen.

³⁰ Interview with JICA/GCF Project expert.

Some issues have been observed in terms of the institutional/organizational and financial aspects. They are not expected to be improved/resolved. Therefore, sustainability of the project effects is moderately low.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

This project, implemented in Laclo and Comoro Watersheds, was intended to develop an operational mechanism of CB-NRM at the suco level (Phase I) and to enhance the capacities of key operational actors, including NDFWMAM, NGOs, and other stakeholders, for expansion of the CB-NRM mechanism (Phase II). The project was consistent with Timor-Leste's development policies and needs. The fact that the project's achievements were reflected in the *Forest Sector Policy* provides useful insights for other projects. The modifications made to the plan to promote the wider dissemination of the CB-NRM mechanism, as well as the approach taken to ensure equity of benefits, were appropriate. The project was consistent with Japan's development assistance policy and generated synergistic effects through collaboration with other JICA projects and DPs. Therefore, the project's relevance and coherence are very high. The project achieved the project purpose of developing the CB-NRM mechanism and enhancing relevant stakeholders' capacities and the overall goal of expanding the mechanism. Moreover, positive impacts, such as the improvement of livelihoods in the target villages, were observed. Therefore, effectiveness and impacts of the project are high. Although both the project cost and the project period slightly exceeded the plan, efficiency of the project is high. Some issues have been observed in terms of the institutional/organizational and financial aspects, which are not expected to be improved/resolved. Therefore, sustainability of the project effects is moderately low.

In light of the above, this project is evaluated to be satisfactory.

4.2 Recommendations

4.2.1 Recommendations to the Implementing Agency

Reutilization of the roadmap

NDFWMAM should revisit the dissemination target of the CB-NRM mechanism in the roadmap for 2030, as well as the corresponding action plan to achieve it. It is also recommended that the contents of the roadmap be shared with other DPs and NGOs. If their consensus can be obtained, it would be desirable for DGF, together with DPs and NGOs, to formulate a joint action plan toward achieving the 2030 target.

Sharing of Successful MP Cases

NDFWMAM should actively compile and disseminate successful cases of MPs implemented in the target villages of Phases I and II, particularly those that have continued for more than 10 years, and describe the factors contributing to their sustainability. Sharing

these cases with JICA/GCF Project target villages and municipalities, as well as with staff members in the forestry and agriculture sectors of other DPs, will contribute to promoting the expansion of the CB-NRM mechanism.

4.2.2 Recommendations to JICA

JICA Timor-Leste Office should encourage NDFWMAM to take the lead in sharing CB-NRM-related information, including the roadmap, through the utilization of the Forest Sector Technical Committee or the reactivation of DP coordination meetings. Instead of relying solely on intermittently dispatched experts, the JICA Office should serve as a central actor among DPs and NGOs in the forestry sector, fostering momentum for collaboration aimed at sharing past achievements and sustaining their effects.

4.3 Lessons Learned

Visits to Target Villages

In Phase II, activities were conducted to visit the target villages of Phase I. One purpose of the visit was reviewing the status of CB-NRM activities and monitoring of illegal activities discussed in village councils, followed by providing follow-up support and advice. The successful practices and challenges identified through these visits were utilized to improve implementation in Phase II villages, revise policy recommendations, and inform dissemination planning. As another purpose, residents from Phase II villages visited Phase I villages to directly exchange information and opinions. This contributed to strengthening motivation for continued practice and implementation on both sides. Such activities were made possible by the seamless implementation of the project without a gap between phases. For future projects with successive phases, incorporating visits to previous phase sites and residents into the project activities can enhance the benefits of follow-up, motivation for continuation, and engagement in the succeeding phase. Even in cases without a succeeding phase, similar effects can be achieved by dividing activity implementation into multiple batches.

5. Non-Score Criteria

5.1 Performance

5.1.1 Objective Perspective

Among the series of steps of the CB-NRM mechanism developed under this project, there is a process to disseminate village regulations within and outside villages through the traditional Tara Bandu ceremony. The content of the ceremony varies depending on each village's customs, but in many cases, it involves animal sacrifice. European DPs such as GIZ did not support this practice and instead adopted a method of enforcing village regulations without conducting this ceremony. In contrast, JICA experts respected local traditions and, recognizing the significance and effectiveness of Tara Bandu, incorporated

it into the CB-NRM mechanism. This approach was highly appreciated by the implementing agency and NGOs. Furthermore, the implementing agency commended the JICA experts for their dedication, noting that they repeatedly visited remote villages despite poor road conditions and carried out their duties sincerely and responsibly. The attitude of respecting local customs in the partner country distinguished JICA's cooperation approach from that of other DPs.

5.2 Additionality

During Phase II, the application to GCF was added to the project activities, and the proposal was successfully approved before project completion. Securing external funding proved to be necessary and effective means to promote the expansion of the CB-NRM mechanism in Timor-Leste, where financial resources are limited. This became the first collaborative project between JICA and GCF (Column 5).

Column 5. Application to GCF

◆ Application to GCF

In May 2018, when JICA was accredited as an Accredited Entity (AE) with access to GCF financing, Phase II had just completed the first draft of the roadmap for the expansion of the CB-NRM mechanism in June 2018. To implement this plan, it was necessary to secure financial backing and consider possible funding options. The roadmap aims to expand the CB-NRM mechanism to 14 priority watersheds (317 villages) across Timor-Leste. The Chief Advisor of Phase II recognized that it would not be efficient for JICA to repeatedly implement technical cooperation projects covering only 10 to 20 villages each time and that it would be inconsistent with the fundamental purpose of technical cooperation for JICA to repeat projects with the same objective merely to increase the number of target villages. At the same time, considering the nature of the activities—strengthening the autonomous capacity of the Timorese government side in forest and natural resource management—an ODA loan or grant aid was not considered an appropriate scheme.

At this time, the experts turned their attention to funding from GCF. Because the GCF's Simplified Approval Process (SAP) allows applications for small-scale grant schemes and Timor-Leste qualifies as a Small Island Developing State, the Phase II team began exploring the possibility of applying for GCF funding. The experts first initiated discussions with their counterparts at MAF and simultaneously consulted with JICA. At that time, JICA had no prior experience as AE and was seeking to secure GCF funding, so the interests of both parties aligned. The experts prepared a draft concept note, which was finalized through consultations with MAF, the GCF National Designated Authority, and JICA, and subsequently submitted by JICA to GCF in March 2019. In June 2019, after the GCF Secretariat approved the development of a Funding Proposal (FP), data collection, analysis, and drafting of FP formally began as an additional activity under Phase II. Even under SAP, FP required extensive data analysis, including examination of the relationship between the drivers of deforestation and corresponding countermeasures, presentation of impacts and future projections based on scientific data, mechanisms for paradigm shift, gender considerations, and adaptation-related outcomes, each of which had to meet GCF's rigorous criteria. The first draft of FP was submitted in June 2020, followed by frequent communications

with GCF officers, two rounds of internal technical reviews by GCF, an external expert review, a technical review by the GCF Board, and finally, approval by the board in March 2021.

This was JICA's first project to be approved by the GCF, and the application and review process itself was highly unpredictable, making it difficult for the experts to estimate the scope and volume of work required. Nevertheless, after a year and a half of intensive effort, the project was successfully approved thanks to the dedication of the JICA officers involved, the experts' exceptional proposal writing skills, and the fact that the CB-NRM mechanism had already been established by the end of Phase II, making it a suitable scaling-up case under SAP. The clear and straightforward paradigm shift toward a "community-led approach" was also a major factor that received high recognition. Coincidentally, the global COVID-19 pandemic broke out during this period, and the experts of Phase II were unable to travel to Timor-Leste from March 2020 onward. While staying in Japan, they focused their efforts on supporting the preparation of FP for GCF, which could be carried out remotely, and used the time effectively to prepare for the implementation of the roadmap. Although there were certainly negative impacts at the field level due to the pandemic, the experts later reflected that this period was utilized productively as an opportunity to secure investment for the future.

In the process of applying to GCF, it is necessary to classify the project as "mitigation," "adaptation," or "cross-cutting," addressing both areas. For "adaptation" projects, data are required to substantiate the projected future climate change scenarios and the expected adaptation effects, not only national-level trend data but also detailed, site-specific data for the target areas. In the case of Timor-Leste, however, such site-specific data were almost nonexistent, making it difficult to establish future scenarios and evaluate the expected impacts of interventions. Initially, the proposal was prepared as an "adaptation" project, but due to the lack of adequate data, it was later shifted to a "mitigation" project. The availability of detailed climate change-related data in the applying country thus becomes a critical factor in determining how to structure a project.

Initially, MALFF was considered to serve as the Executing Entity (EE). However, considering the limitations in personnel and institutional capacity, JICA ultimately assumed the role of EE as well. Although the fact that MALFF would not serve as EE affected the Timorese side's sense of ownership to some extent, a cooperative framework was gradually established through continued joint work and consultations with the project experts.

◆ Implementation of GCF Project

In March 2022, the "Project for Community-Based Landscape Management for Reduction of Deforestation and Strengthening of Climate Resilience of Local Livelihoods in the Priority Watersheds" was launched. Building on the achievements up to Phase II, the project aims to strengthen the organizational and individual capacities of vulnerable upland communities, as well as relevant governmental and non-governmental organizations, to reduce forest degradation and deforestation through the implementation of the CBNRM mechanism in 74 villages across four watersheds.

In the project, in addition to GCF's contribution, co-financing has been provided by both JICA and the Government of Timor-Leste (USD 10 million from the GCF, USD 3.5 million from JICA, and USD 1.9 million from the government of Timor-Leste). Although the scheme is a technical cooperation project several times larger in scale than usual, in practice, it integrates financial cooperation and technical cooperation. The experts of the JICA/GCF Project, in addition to the

roles that were played during Phase II, have been responsible for managing the execution of more than USD 15 million and conducting monitoring in accordance with GCF procedures and formats. These functions should be undertaken by EE, but in this project, they have been entrusted to JICA/GCF Project experts.

The experts of JICA/GCF Project, by analogy with ODA loan projects, are simultaneously fulfilling three roles: (1) as the Project Management Unit (PMU) responsible for overall project planning and implementation, financial management related to the formulation and execution of budget plans covering the three funding sources (GCF, JICA, and the Government of Timor-Leste), procurement and contract management, coordination among stakeholders, and support for JICA's reporting to GCF; (2) as an advisory service provider to PMU, including monitoring and technical assistance; and (3) as experts in the technical cooperation component attached to the project, responsible for technology transfer and capacity development of the stakeholders. According to the Chief Advisor of the JICA/GCF Project, the workload related particularly to roles (1) and (2) has been considerable, making it difficult to allocate sufficient resources to the technical cooperation activities under role (3), which had been the core of the work up to Phase II.

(Source) Created based on the Project Completion Report of Phase II, interviews with experts of Phase II and JICA/GCF Project, and questionnaire answers from JICA Global Environment Department.

(End)