

Joint Terminal Evaluation Report
On
The Project for Increasing Farmers
Households' Income Through Strengthening
Domestic Rice Production
In Timor-Leste

September 2023

Japan International Cooperation Agency

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Abbreviations

ACIAR	Australian Center for International Agricultural Research
AI-Com	Agricultural Innovations for Communities for Intensified and Sustainable Farming Systems in Timor-Leste
C/P	Counterpart Personnel
CMEA	Coordinating Ministry of Economic Affairs. After July 2023, Coordinating Minister of Economic Affairs
DG	Director General
IRCS	Improved Rice Cropping System
IRCP	Irrigation and Rice Cultivation Project in Manatuto
IS	Irrigation Scheme
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
KCCP	Knowledge Co-Creation Proram
KONSSANTIL	The National Council for Food Security, Sovereignty and Nutrition in Timor-Leste
MAF	Ministry of Agriculture and Fisheries
MALFF	Ministry for Agriculture, Livestock, Fisheries and Forestry (formerly MAF)
MCIE	Ministry of Commerce, Industry and Environment
MEAD	Ministry of Economic Affairs and Development
MRC	Maliana Rice Commission
MTCI	Ministry of Tourism, Commerce and Industry
MTI	Ministry of Trade and Industry
M/M	Minutes of Meeting
ND	National Director
NLC	National Logistic Center
O&M	Operation and Maintenance
ODA	Official Development Assistance
OECD-DAC	Organization for Economic Co-operation and Development - Development Assistance Committee
OJT	On-the-job training
PDM	Project Design Matrix
PO	Plan of Operation
R/D	Record of Discussions
SDGs	Sustainable Development Goals
SDP	Timor-Leste Strategic Development Plan
SECOOP	Secretary of State for Cooperatives
SOP	Standard Operating Procedure
TOT	Training of Trainers
WFP	World Food Programme
WUA	Water Users Association

1: Introduction

1.1 Background of the Project

In the Democratic Republic of Timor-Leste (hereinafter referred to as "Timor-Leste"), agriculture is the major industry, accounting for only 8.6% of GDP but employing 26.9% of the population. As the country highly depending on oil and natural gas production, promoting the development of industries based on agriculture is an important issue.

Under the circumstances, the government of Timor-Leste formulated "the Strategic Development Plan 2011-2030" in 2011 as the basis for nation-building until 2030. The plan has prioritized agriculture as one of key development sectors and articulated to achieve rice self-sufficiency by 2020 by setting development goals such as improving farming technologies, increasing food production, and improving the self-sufficiency rate of rice. However, the rice self-sufficiency rate in 2021 is about 30%, and imported rice currently takes up about 70% of domestic rice consumption. In addition, the influx of low-priced imported rice is increasing year by year, while the domestic planted/harvested areas for rice peaked at 46,000ha in 2008 and has since been declining.

In order to improve the food self-sufficiency rate, the challenges are: (1) lack of input materials (excellent seeds, fertilizers, etc.) and cultivation techniques, (2) unstable water intake due to improper management of irrigation facilities, (3) underdeveloped domestic rice market and distribution network, and (4) the immaturity of the purchase system by the government. This situation has caused a decrease/stagnation in rice productivity, in farmers' motivation to produce rice, and in the proper distribution of domestic rice, thus creating a situation that hinders the supply of domestic rice as a whole. In order to improve the food self-sufficiency rate in Timor-Leste, it is necessary to realize an appropriate income through rice production, providing incentives for farmers to rice production through consistently functioning value-chain of production, processing, distribution and marketing.

In light of the above, MAF¹, MCIE² and JICA are implementing *the Project for Increasing Farmers Households' Income Through Strengthening Domestic Rice Production In Timor-Leste* (hereinafter referred to as "the Project") targeting the entire country (mainly the Maliana I Irrigation Scheme the Buluto Irrigation Scheme). The Project aims to (1) improve the farming techniques of rice farmers in selected areas, (2) strengthen the operation and maintenance capacity of irrigation facilities, (3) build a domestic rice distribution and marketing model by the private sector, (4) improve domestic rice purchasing and distribution system by the government, (5) share the lessons learned from the Project, and (6) prepare options necessary for the policy formulation of domestic rice promotion by stakeholders, thereby increasing farmers' household income in the target area with rice production through the improvement of rice value-chain (production, processing, distribution, marketing and consumption), thus contributing to the improvement of livelihoods of farmers' households.

Toward the end of the Project in December 2023, the terminal evaluation is conducted to confirm the achievement, results and implementation process (promoting and hindering factors) of project activities, to make recommendations for the sustainability of project activities during and after the cooperation period, and to draw lessons learned for the implementation of similar projects in the future.

1.2 Outline of the Project

R/D (Record of Discussion) states the outline of the Project, which is transcribed into the format of PDM (Project Desing Matrix) for day-to-day management and monitoring during the project implementation. For the Terminal Evaluation, the latest PDM version 4 (dated December 6, 2022) is used as the reference for the Project outline. (See [Appendix 1](#) and [Appendix 2](#))

Outline of the Project

Project Name	The Project for Increasing Farmers Households' Income through Strengthening Domestic Rice Production in Timor-Leste
Project Period	7 years and 3 months (September 2016 – December 2023)
Total Budget	After the Detailed Planning Survey: 1 billion Japanese Yen

¹ The election for parliament members was held on May 21, 2023, and the new cabinet was inaugurated on June 21, 2023. On July 3, the new Minister of MAF was appointed and at the same time MAF was reorganized as MALFF.

² MCIE (Ministry of Commerce, Industry and Environment) was purchasing domestic rice at the time of the Detailed Planning Survey. Now, NLC (National Logistic Center) is in charge of purchasing domestic rice. NLC was under MTCI at the time of Mid-term review, under CMEA when the extension of the Project was decided, and under CMEA at present.

Implementing Agencies	Ministry of Agriculture and Fisheries (MAF (MALFF after the change of administration in July 2023)), Coordinating Ministry of Economic Affairs (CMEA), Local Authorities in the Project Sites
Project Sites	Output 1: Buluto and Maliana I irrigation schemes, and its surrounding area Output 2: Buluto and Maliana I irrigation schemes Output 3: Buluto and Maliana I irrigation schemes, its surrounding area, and Dili Output 4: Buluto and Maliana I irrigation schemes, and its surrounding area, Rice stockpiling warehouses in Dili and Maliana Output 5: Areas outside Buluto and Maliana I irrigation schemes Output 6: Whole country
Target Group	Direct Target Groups: Staff of Respective Ministries and Municipalities, Targeted Farmers in Baucau, Manatuto, Bobonaro and other municipalities, and Targeted Rice Retail Traders Indirect Target Groups: All Farmers in Baucau, Manatuto, Bobonaro and other targeted areas, Private Sector related to Rice Distribution and Marketing, and Consumers
PDM Narrative Summary	<p>【After the Detailed Planning Survey】</p> <p><Super Goal>³ Livelihood of farmers living in Timor-Leste is improved through increase in income by improved rice value-chain.</p> <p><Overall Goal> Livelihood of farmers living in the targeted municipalities is improved through increase in income by improved rice production.</p> <p><Project Purpose> Farmers households' income from rice production in the project sites is increased through the improvement of value-chain (Production, Manufacturing & Processing, Distribution and Sales/Consumption).</p> <p><Output> Output 1: Cultivation techniques for increasing rice production are improved in the project sites. Output 2: Capacity of operation and maintenance (O&M) for irrigation facilities is strengthened. Output 3: System(s) of domestic rice distribution/ sales are prepared for the rice branded by the project. Output 4: The rice purchasing/ distribution system of government is improved. Output 5: The Project activities are shared with stakeholders in other municipalities such as southern part of Timor-Leste under the initiative of MAF⁴.</p> <hr/> <p>【Latest PDM】</p> <p><Super Goal> Livelihood of farmers living in Timor-Leste is improved through increase in income by improved rice value-chain.</p> <p><Overall Goal> The improved rice value chains are sustained in Buluto and Maliana I with the initiative of the Government of Timor-Leste.</p> <p><Project Purpose> Farmers households' income from rice production in the project sites is increased through the improvement of rice value-chain (Production, Harvesting, Post-harvest and Processing, Distribution, and Sales/Consumption) achieved by collaborative approach.</p> <p><Output> Output 1: System of rice farming is improved. Output 2: System of irrigation water management among farmers is improved. Output 3: System of domestic rice distribution/ sales is improved. Output 4: System of domestic rice purchasing / distribution system by the government is improved. Output 5: The lessons learned from the Project are shared with stakeholders in other municipalities under the initiative of MAF. Output 6: Necessary options for formulating domestic rice promotion policies are prepared and shared by the stakeholders.</p>

1.3 Objectives of the Joint Terminal Evaluation

JICA's terminal evaluation aims to evaluate project's implementation status from the perspectives of achieving the project purpose, project efficiency, the prospect for sustainability and to summarize actions to be taken toward the end of the project together with the recipient country. Accordingly, the objectives of the joint terminal evaluation are to:

- (1) Based on the PDM and PO (Attachment 1 and 2), confirm the progress/results of the project and the project implementation process, and analyze the achievement status and prospects of its purpose and outputs, as well as contributing and hindering factors.

³ Set in November 2017 (1 year and 3 months after the start of the Project) as PDM Ver. 1.0 with amended R/D dated February 22, 2018.

⁴ Same as above.

- (2) Review the status of the Project at the time of the terminal evaluation from the viewpoint of six evaluation criteria (relevance, coherence, effectiveness, impact, efficiency, and sustainability).
- (3) Discuss and agree on actions to be taken during the remaining period of the Project as well as recommendations for achieving the overall goal after the completion of the Project.
- (4) Summarize lessons learned obtained through the Project for other similar projects.

1.4 Members of the Joint Evaluation Team

The evaluation was conducted mainly by the Japanese team in consultation with all the C/P and key stakeholders of Timorese Side. Due to the recent organizational change and staff transfer of MALFF in July through September 2023 after the inauguration of the new cabinet, MALFF was not able to assign an external evaluator for the joint evaluation. This terminal evaluation report, however, has been prepared in consultative and participatory way engaging the Timorese side.

(1) Timorese Side

Name	Role in the Team	Organization
	Evaluation	MALFF

(2) Japanese Side

Name	Role in the Team	Organization	Period in Timor-Leste
Mr. NAKADA Shunichi	Leader	Senior Advisor, JICA	2023/9/10-2023/9/21
Ms. NAGAI Eri	Cooperation Planning	Agriculture and Rural Development Group 1, Economic Development Department, JICA	Online Participation 2023/9/4-2023/9/20
Mr. HAYAKAWA Yuta	Evaluation Planning 1	Representative, JICA Timor-Lest Office	2023/9/4-2023/9/20
Mr. Armando Amaral da Cruz	Evaluation Planning 2	Senior Program Officer, JICA Timor-Leste Office	2023/9/3-2023/9/21
Mr. OKUDA Hiroyuki	Evaluation & Analysis	Consultant, Tekizaitekisho LLC	2023/9/3-2023/9/21

1.5 Schedule of the Evaluation

The terminal evaluation conducted on 3 September 2023 through 21 September 2023. Mission member of Japan side arrived in Timor-Leste (Evaluation & Analysis on 3 September and Leader on 11 September), conducted surveys and summarized the evaluation results in the joint terminal evaluation report. The report is to be submitted to the JCC scheduled on 20 September for approval.

Schedule of the joint evaluation

Date	Schedule	Accommodation
9/3 Sun	7:30 Arrival of a mission member (Evaluation & Analysis)	Dili
9/4 Mon	9:00-9:45 JICA Office 10:00-12:00 Meeting with JICA Expert Team 14:00-14:30 ToMAK, Ai-com 14:45-15:30 FAO (Small scale irrigation) 16:00-17:00 WFP @UN Office Caicoli	Dili
9/5 Tue	9:00-11:00 NLC Director Executive and visit warehouse in Benora (Dili) 11:20-12:00 NLC President of the Administration of Council and visit warehouse in Tibar 14:00-14:30 Courtesy call to MALFF 16:00-17:00 Interview with Loja Administrator	Dili
9/6 Wed	9:30-10:00 Director of Manatuto Municipal Service of Agriculture 10:30-11:00 Buluto IS Observation 14:00-15:30 Director of Baucau Municipal Service of Agriculture 16:00-17:00 Meeting with ACELDA	Baucau
9/7 Thu	8:00-8:30 Vemase Subdistrict Administrator 10:00-12:00 Interview with WUA 13:30-14:30 Interview with Extension Officer 15:00-16:00 Interview with Farmers	Manatuto
9/8 Fri	8:00-9:00 Buluto IS Observation 9:00-10:00 Laleia Subdistrict Administrator 14:00-15:30 Discussion with Project Team	Dili
9/9 Sat	Documentation	Dili

9/10	Sun	7:30	Arrival of a mission member (Leader)	Dili
9/11	Mon	9:00-10:00 15:00-17:00	Meeting with JICA Expert Team Director of Bobonaro Municipal Service of Agriculture	Bobonaro
9/12	Tue	8:30-9:30 9:30-10:30 11:00-12:00 14:00-15:30 16:00-17:00	Maliana Rice Commission (MRC) Meeting with the President of Municipality Bobonaro CAAKUB Interview to WUA and GK Interview with Extension Officers	Bobonaro
9/13	Wed	8:15-10:30 10:00-11:00 11:30-12:00	Maliana IS Observation Interview with farmers NLC Warehouse	Dili
9/14	Thu	11:00- 11:50- 14:10-	IRCP 2 Project Site Observation Buluto IS Observation MALFF Manatuto Municipality	Dili
9/15	Fri	9:00-10:00 10:15-10:30 11:30-12:00 16:00-17:00	Meeting with DG of Agriculture MALFF Meeting with ND of Extension MALFF Meeting with ND of Irrigation MALFF Meeting with SECOOP Mr. Arsénio Pereira da Silva	Dili
9/16	Sat		Documentation	Dili
9/17	Sun		Documentation	Dili
9/18	Mon	8:30-9:00 14:00-14:30 14:30-15:00 15:30-16:30	Meeting with the Minister of MALFF Meeting with MTI Minister Meeting with ND of Agro-commerce MALFF NLC Director Executive	Dili
9/19	Tue	9:00-11:00 11:00-11:30 14:30-15:00 16:00-16:30	Meeting with DG of Agriculture MALFF Meeting with ND of Irrigation MALFF Meeting with DG of Cooperation and Institutional Development Meeting with Project Submanager (Output 6)	Dili
9/20	Wed	10:00-12:00 14:30 16:00	JCC Report to JICA Timor Leste Embassy of Japan	Dili
9/21	Thu	8:30	Leave Dili international airport	-

1.6 Methodology of the Terminal Evaluation

The Terminal Evaluation is conducted based on JICA Project Evaluation Handbook (ver2.0, March 2021), which follows the Principles for Evaluation of Development Assistance 1991 prepared by Organization for Economic Co-operation and Development - Development Assistance Committee (OECD-DAC). As such, the following Six Evaluation Criteria (Relevance, Coherence, Effectiveness, Efficiency, Impact, Sustainability) are applied as the perspective of evaluation.

Perspective of evaluation (Six Evaluation Criteria)

Relevance	The extent to which the purpose and design of the intervention respond to beneficiaries' needs, policies and priorities and remain responsive as circumstances change.
Coherence	Compatibility of the intervention with other interventions by partner/development agency, recipient country, relevant sector and organization.
Effectiveness	The extent to which the purpose and output of the intervention have been achieved or likely to be achieved, including different outcomes of respective groups.
Impact	Degree of significant positive or negative, intended or unintended, higher-order effects caused or expected by the intervention.
Efficiency	The extent to which the intervention is implemented that produce outputs from inputs in an economical and timely manner.
Sustainability	The degree to which the net benefit of the intervention persists or is likely to persist from the perspectives of policy/institutional, organizational/human resources, financial, and technical aspects.

Main steps of conducting the joint evaluation are:

- (1) Prepare a questionnaire with information collected through available materials such as project reports and distribute the questionnaire in advance of visiting for field survey.
- (2) Conduct interviews with concerned parties (implementing agencies, direct/indirect beneficiaries, development agencies, stakeholders, etc.), collect filled-in questionnaires, and visit Project Sites to analyze and evaluate the results of intervention.

- (3) Draft the evaluation report with the joint evaluation team and discuss/agree on the contents with the concerned parties.
- (4) Submit the evaluation report to JCC (Joint Coordination Committee) of the Project for discussion and confirm the report with the approval of JCC.

1.7 Interviewees in the Terminal Evaluation

The evaluation team conducted a series of discussion and interview with the followings during the mission.

List of interviewees

Timor-Leste Side		
1. MALFF (Central)		
1-1	Mr. Marcos da Cruz	Minister of MALFF
1-2	Ms. Ervina Soares Pinto	DG for Cooperation and Institutional Development
1-3	Mr. Martinho Laurentino Soares	DG for Agriculture
1-4	Mr. Januario Marcal de Araujo	National Director of Agriculture and Extension
1-5	Mr. Jacinto Vicente Filipe Gama	National Director of Irrigation and Management of Water Utilization
1-6	Mr. Carlos Antunes Amaral	National Director of Agro-Commerce
1-7	Mr. Francis F. Gama	Staff of Department of Agriculture and Extension
1-8	Mr. Pedro Vital Borges	Chief, Irrigation and Management of Water Utilization
1-9	Mr. Vicente H. Guterres	Senior Technical Staff, Irrigation and Management of Water Utilization
1-10	Mr. Denis Quintao	Senior Technical Staff, Irrigation and Management of Water Utilization
1-11	Mr. Arcanjo dos Reis	Staff, Agro-Commerce
1-12	Mr. Miguel Amaral	Staff, Agro-Commerce
1-13	Mr. Gil Rangel Da Cruz	Project Sub-manager (Output 6)
2. MIT (NLC)		
2-1	Mr. Gervasio Cardoso de Jesus da Silva	President of the Administration Council
2-2	Mr. Jacinto Paijo	Executive Director
2-3	Mr. Vasco Cabecas de Araujo	Chief of Staff
2-4	Mr. Tarcicio Lopes	Maliana Warehouse (NLC Former Manager)
2-5	Mr. Manuel dos Santos	Maliana Warehouse (NLC Staff)
3. Municipality and Subdistrict government		
3-1	Mr. Thomas Francisco Piedade Ximenes	Director of Manatuto Municipal Service of Agriculture
3-2	Mr. Antonio de Sousa Correia	Extension Officer, Manatuto Municipal Service of Agriculture
3-3	Mr. Cosme Ximenes	Sub-district Administrator in Laleia, Manatuto
3-4	Mr. Moises Lobato Pereira	Director of Baucau Municipal Service of Agriculture
3-5	Mr. Martinho Ximenes	Irrigation Officer, Baucau Municipal Service of Agriculture
3-6	Mr. Americo S. da Costa	Extension Officer, Baucau Municipal Service of Agriculture
3-7	Mr. Pedro da Costa Freitas	Sub-district Administrator in Vemasse, Baucau
3-8	Mr. Fernando Freitas	Gatekeeper, Baucau Municipal Service of Agriculture
3-9	Mr. Nicolau Paicheco	Gatekeeper, Baucau Municipal Service of Agriculture
3-10	Mr. Alberto Gomes Lopes	Director of Bobonaro Municipal Service of Agriculture
3-11	Mr. Joaquim Serguira	Chief Department of Extension Department, Bobonaro Municipal Service of Agriculture
3-12	Mr. Celestino Henriques	Irrigation Officer, Bobonaro Municipal Service of Agriculture
3-13	Mr. Rui Lasi	Staff of Department of Agro-commerce, Bobonaro Municipal Service of Agriculture
3-14	Mr. João Mali Lelo	Gate Keeper, Bobonaro assigned to Ramaskora secondary Canal
3-15	Mr. Lucas Freitas dos Santos	Gate Keeper, Bobonaro assigned to Ritabou Secondary Canal
3-16	Mr. Domingos do Ceremo	Extension Officer, Bobonaro Municipal Service of Agriculture
3-17	Mr. Jeronimo Pedro	Extension Officer, Bobonaro Municipal Service of Agriculture
3-18	Ms. Joania Araujo	Extension Officer, Bobonaro Municipal Service of Agriculture
3-19	Mr. Januario Ferreira	Extension Officer, Bobonaro Municipal Service of Agriculture
4. Buluto IS		
4-1	Mr. Vincente de Sausa	Director WUA
4-2	Mr. Carlos Freitas	Deputy Director, WUA
4-3	Mr. Victor Viegas	Secretary, WUA
4-4	Mr. Carlos Freitas	Farmer
4-5	Ms. Malia Freitas	Farmer
4-6	Mr. Frabio	Farmer
4-7	Mr. Pedro Da Silva	Farmer
4-8	Mr. Marsal	Farmer
4-9	Mr. Cansio Da Costa	Farmer

5. Maliana 1 IS		
5-1	Mr. Joao do Carmo Belo	Secretary of Bobonaro Municipality
5-2	Mr. Pedro Gonsalves	President of the WUA
5-3	Mr. Carlito Gonsalves	Vice President of the WUA
5-4	Mr. Romeo Loe Siga	Representative Farmer
5-5	Mr. Tito Felis	Line planting Farmer
5-6	Mr. Julito Mendes	Direct seeding Farmer
5-7	Mr. Carlos P Afonso	Direct seeding Farmer
5-8	Mr. Carlito Bere	Line planting Farmer
6. Private Sector		
6-1	Mr. Higino da Costa Freitas	Director, ACELDA
6-2	Mr. Antonio da Conceicao	President of MRC, President of CAAKUB
6-3	Mr. Cazimeiro Pereira	Vice President of MRC
6-4	Ms. Marcela Sofiana da Costa	CAAKUB Accountant
6-5	Ms. Novelia de Araujo	CAAKUB Accountant Assistant
7. Development Partners		
7-1	Mr. Rob Williams	AI-Com Technical Director
7-2	Mr. Luis Pereira	AI-Com Technical Coordinator
7-3	Ms. Marcia e Silva	ACIAR Officer in Timor-Leste
7-4	Mr. Claudio Nabais	CA/CSA Director of research, FAO
7-5	Mr. Eligito dos Santos	National Consultant for Small-scale Irrigation Project, FAO
7-6	Dr. Ali Ahmad Khan	Head of Programme, WFP
8. Relevant Government organization		
8-1	Mr. Arsenio Pereira da Silva	Director of SECOOP
8-2	Mr. Filipus Nino Pereira	Minister of MTI
Japanese Side		
1. Project		
1-1	Mr. KAMIDOHZONO Akira	Chief Advisor
1-2	Mr. IINO Tokutaro	Cultivation Techniques / Community Development
1-3	Mr. MIYAZOE Mikio	Agricultural Distribution and Sales
1-4	Ms. NAGAI Naoko	Project Coordinator
1-5	Mr. Nelio Boavida Lay	Project Officer
1-6	Mr. Alberto Quintão de Oliveira	Project Officer
1-7	Mr. Fernando Fontes da Cruz	Project Officer
1-8	Mr. Celestino Rangel	Project Officer
1-9	Ms. Elvira Pereira Bano	Project Officer
1-10	Mr. Lucio da Costa	Project Officer
1-11	Mr. Elvis Marques	Field Staff
1-12	Mr. Mateus Barros	Field Staff
1-13	Mr. Pedro Da Silva	Field Staff
2. JICA Timor-Leste Office		
2-1	Dr. ITO Mimpei	Chief Representative

2: Achievement of the Project

2.1 Records of Inputs

Planned inputs to the Project from both the Japanese and the Timor-Leste side are indicated in the PDM Version 4 (dated December 6th, 2022). Actual inputs at the time of Terminal Evaluation are as follows.

(Japanese side)

2.1.1 Dispatch of Experts

Since the beginning of the Project in September 2016, total 12 long-term experts and 17 short-term experts have been dispatched. At the time of terminal evaluation, 4 long-term experts are assigned to the Project in field of Chief Advisor, Output 1 (Cultivation Techniques/Community Development), Output 3 (Agricultural Distribution and Sales), and Project Coordinator/Training and Extension. Long-term experts in charge of Output 2 (Participatory Irrigation Management) and Output 4 (Rice Purchasing and Distribution) left the Project in May 2023 and March 2023, respectively. After that, the expert in charge of Output 1 has been assigned to Output 2 and the expert in charge of Output 3 has been assigned to Output 4, thus the two experts working with multitasking currently. (See [Appendix 3](#))

In response to COVID-19, from March 2020 to January 2021, two long-term experts and from June 2020 to January 2021, other two experts, were instructed to return to Japan temporarily because of JICA's safety measures. During that period, they made full use of IT, assigned appropriate local personnel, and remotely promoted project activities.

2.1.2 Training

Four persons participated in counterpart training in Japan: three in Okinawa in October 2018 concerning establishment and management of farmers' market and one at JICA in January-February 2020 concerning strengthening safety management system of agricultural products.

As for online training connected to Japan, total 15 persons participated in 2021 and 2022 in the following fields: participatory irrigation management system for paddies, Promotion of Food Value Chain for Community-Based Agri-Business, Establishment and Development of Farmers' Organizations, Integrated Agriculture and Rural Development through the Participation of Local Farmers, Strengthening Safety Management System of Agricultural Products, and rural development. (See [Appendix 4](#))

Also, the Project have implemented many local seminar and training: FFS for rice cultivation (Output 1), food value chain training (Output 4), 5S/KAIZEN training (Output 4), rice quality analysis training (Output 4), workshop for WUA regeneration committee (Output 2), OJT for UWA (Output 2), information seminar on the Maliana Rice Commission (Output 3), workshop for participatory irrigation management (Output 2), OJT for rice quality control (Output 4), etc. (See [Appendix 5](#))

2.1.3 Provision of Equipment and Materials

Major equipment provided includes Land Cruiser, motor-bike, threshing machine, power machine, laptop, and laser printer. They have been already handed over to the Timor-Leste government. All the threshing machine, total 8 units, and one power machine are currently out of order with no prospect of repair. The other equipment are in good condition and being effectively utilized. (See [Appendix 6](#))

2.1.4 Budget for the Operational Cost

The local operational cost amounting to 291,664,256 Yen (JFY 2019- JFY 2023) was borne by the Japanese side till June 2023. (See [Appendix 7](#))

(Timorese Side)

2.1.5 Allocation of Counterpart Personnel

At the time of terminal evaluation, total 43 personnel are allocated as counterpart: 15 as JCC member and 28 as non-JCC member.

JCC member includes (1) 2 Co-Chairpersons from MAF and NLC, (2) Project Director from MAF, (3) 2 Co-Project Managers from MAF and NLC, (4) 7 Project Sub-managers from MAF and NLC, and (5) 3 presidents of participating

municipalities. Non-JCC member includes (1) 3 Director and 18 staff of MAF municipality offices in Bobonaro, Baucau, and Manatuto, (2) 3 sub-district administrators, (4) staff of MAF central, (5) 3 staff from NLC. (See [Appendix 8](#) and [Appendix 9](#))

2.1.6 Facility and equipment

The government of Timor-Leste has provided project office space in MAF, Buluto and Maliana I with equipment.

2.1.7 Local Cost

The electricity cost for the project offices in MAF and Maliana I amounting to USD 7,790 has been borne by the Timorese side as of the end of June 2023. Only the electricity cost is estimated as it is difficult to separate and calculate the amount expended only for the Project.

The Timorese side also cover expenses for project activities (i.e., paddy seeds, fertilizer, pesticide, fuel, tractor, combine harvester, threshing machine, milling machine, grease for irrigation facilities, irrigation ceremony), but their exact costs are unknown. In addition, the Timorese side prepared/constructed land, building and other facilities for project office and WUA office (e.g., installing water tank and air conditioner). (See [Appendix 10](#))

2.2 Prospect of Producing Expected Outputs

PDM version 4 (dated December 6, 2022) describes the following Outputs and corresponding PDM indicators. For the terminal evaluation, the progress/achievements are basically assessed in light of the extent to which the Project expects to achieve the PDM indicators by the end of cooperation period. The prospect of achieving each indicator, based on the information/data collected, is as in the table below. (See [Appendix 11](#))

Assessment of the status/prospect for Output

Indicator	Current Status	Result
Output 1: System of rice farming is improved.		
1-1 Yield at demonstration plots achieves 6 ton/ha at the rainy season in 2023.	• In 2023 rainy season, the average yield of 10 demonstration plots is 6.2t/ha; 6.4t/ha in Buluto (5 model farmers) and 5.9t/ha in Maliana 1 (5 model farmers).	Achieved
1-2 Average yield of participated farmers on FFS in Buluto and Maliana I site increases to 4.5ton/ha at the rainy season in 2023 from 2.5 t/ha and 2.9t/ha in 2019 respectively.	• In 2023 rainy season, the average yield of lead farmers is 5.1t/ha in Buluto (101 lead farmers) and 4.8 t/ha in Maliana 1 (100 lead farmers).	Achieved
1-3 Cultivation area in Buluto increases to 600 ha at the rainy season in 2023 from 426ha in 2019.	• In 2023 rainy season, the cultivated area was 619ha in Buluto (209ha in Laleia in Manatuto municipality, and 410ha in Vemase in Baucau municipality)	Achieved
Output 2: System of irrigation water management among farmers is improved.		
2-1 More than 50 % of beneficially farmers pay water fees in 2023 from 0% in May 2019.	• In 2023 rainy season, the collection rate of water fees is 71.3% in Buluto (403/565 farmers) and 28.0% in Maliana 1(374/1,335 farmers).	Partially Achieved
2-2 Main canal and sub-canals of irrigation schemes are cleaned and maintained by farmers in Buluto and Maliana I.	• Canal cleaning activities were implemented for 12 days in Buluto by total 918 farmers and 3 days in Maliana 1 by total 204 farmers before the rainy starts.	Achieved
Output 3: System of domestic rice distribution/ sales is improved.		
3-1 A total of more than 500 tons of paddy is sold by farmers in Buluto and Maliana I to private sectors such as CAAKUB and ACELDA per year.	• At the end of July 2023, total 255t of paddy were sold to private sector (CAAKUB 64t, ACELDA 30t, and others 161t)	Not Achieved
3-2 Marketing channel for domestic rice is expanded to private sectors such as restaurants, hotels, and farmers' market.	• CAAKUB, ACELDA and other traders sold rice to at least 24 companies in 2023, including hotel, restaurant, café, supermarket, and Loja (farmers' market).	Achieved
Output 4: System of domestic rice purchasing / distribution system by the government is improved.		
4-1 Plan of government purchase and distribution of domestic rice is prepared annually.	• Since 2020, NLC has revealed planned amount every year; in 2023, NLC plans to purchase 3,600t of paddy from throughout the country.	Achieved
4-2 Appropriate system of payment from NLC to farmers and private companies is introduced so that the timing of payment meets farmers' needs.	• NLC implements payment in accordance with "SOP for purchasing rice from NLC" prepared in the Project so that the timing of payment can meet farmers' needs.	Achieved

4-3 More than 1,000 tons of paddy is purchased by NLC in Buluto and Maliana, and its surrounding area per year.	<ul style="list-style-type: none"> In 2023, NLC plans to purchase 3,600t of paddy from the whole country. As of August, NLC has purchased 1,002t of paddy (40t from Buluto and 962t from Maliana 1). 	Achieved
4-4 Stocktaking of NLC warehouse is conducted and reported quarterly to the project.	<ul style="list-style-type: none"> Quarterly inventory data from January to March from NLC warehouses was reported for the 5 warehouses (Tibar, Maliana, Baucau, Natrabora, Dili) 	Achieved
Output 5: The lessons learned from the Project are shared with stakeholders in other municipalities under the initiative of MAF.		
5-1 Workshops on the project activities are held for stakeholders in five modern irrigation schemes to share Collaborative Approach under the initiative of MAF.	<ul style="list-style-type: none"> W/S to local stakeholders of the five modern irrigation facilities (Larisula, Caraulun, Oebaba, Bebui and Tono) were conducted in October 2019 through July 2023. 	Achieved
Output 6: Necessary options for formulating domestic rice promotion policies are prepared and shared by the stakeholders.		
(1) A roadmap of the policy for increase of domestic rice production, is discussed by Taskforce.	<ul style="list-style-type: none"> Taskforce to discuss the roadmap has not been established yet while many efforts were made. 	Not Achieved

2.3 Prospect of Achieving the Project Purpose

The Project Purpose is “Farmers households’ income from rice production in the project sites is increased through the improvement of rice value-chain (Production, Harvesting, Post-harvest and Processing, Distribution, and Sales/Consumption) achieved by collaborative approach.” The prospect of achieving Project Purpose indicator, based on the information/data collected, is as in the table below. (See [Appendix 11](#))

Assessment of the status/prospect for Project Purpose

Indicator	Current Status	Result
Project Purpose: Farmers households’ income from rice production in the project sites is increased through the improvement of rice value-chain (Production, Harvesting, Post-harvest and Processing, Distribution, and Sales/Consumption) achieved by collaborative approach.		
More than USD 600,000 of income is generated by sales of rice by farmers in Buluto and Maliana I per year. (equivalent to 1,500 tons of paddy sales at USD 0.40/kg).	<ul style="list-style-type: none"> In 2022, total 1,467.4t of paddy purchase amount was made where farmers sold 552t to NLC and 915.4t to private sector, out of which 805t was actually sold through private companies to the government (MTCI and SECOOP) for CESTA BASICA program. In 2023 by the end of July, 1,257.2t of paddy purchase amount was made: 255.1t to private sector and 1,002t to NCL. The quantity may increase until December. The purchase amount was surveyed by the Project. The purchasing price of NLC at fields remains the same, USD 0.40/kg 	Almost Achieved

2.4 Progress toward Attaining the Overall Goal

The Overall Goal is “The improved rice value chains are sustained in Buluto and Maliana I with the initiative of the Government of Timor-Leste.” (See [Appendix 11](#))

Assessment of the status/prospect for Overall Goal

Indicator	Current Status	Prospect
Overall Goal: The improved rice value chains are sustained in Buluto and Maliana I with the initiative of the Government of Timor-Leste.		
1) The production in Buluto and Maliana I is maintained or increased compared to the end of the project.	<ul style="list-style-type: none"> With the current government policy and surrounding environments, the production in Buluto and Maliana is expected to be maintained or increased. MAF conducts an annual national survey of rice production (cultivated area, yield, production amount) by municipality. This will be used as a means of verifying the indicator. 	Possibly will be achieved
2) The Buluto and Maliana I irrigation facilities are maintained by the WUA (with the support of MAF).	<ul style="list-style-type: none"> At present, works of “the Program for Urgent Rehabilitation of Flood Damaged Infrastructure” are underway at both irrigation schemes. Once the repairs are completed, these two irrigation facilities will be able to fully function. There are high expectations to the rehabilitations not only from MALFF but also from local administration, and continued monitoring by WUA and support by local and central government are expected. 	
3) The amount of domestic rice sold in Buluto and Maliana I is maintained or increased	<ul style="list-style-type: none"> "XX (quantity)" needs to be determined in this terminal evaluation (the reason it was not determined at the time of 	

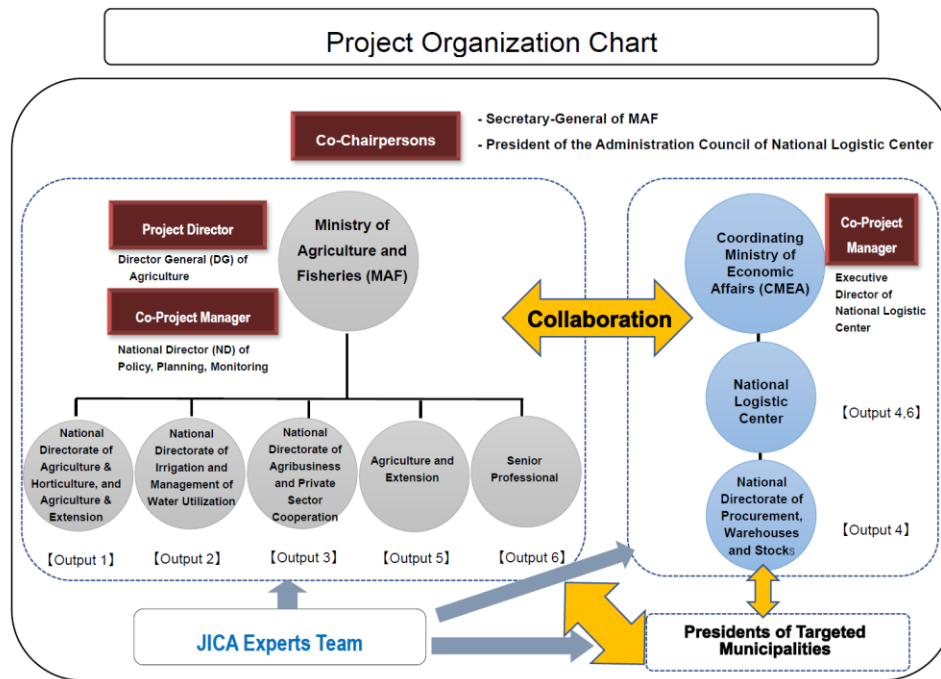
<p>compared to XX (to be determined at the Terminal Evaluation of the project).</p>	<p>the Advisory Mission in 2022 was because the impact of SESTA BASICA seemed too significant.)</p> <ul style="list-style-type: none"> Survey on the amount of rice sold in Blututo and Maliana 1 required considerable efforts of the Project to gather and compile information from many stakeholders. The Timor-Leste government needs to consider the way to collect relevant data. 	
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2.5 Implementation Process

2.5.1 Implementation Structure

Implementing agencies are MALFF and CMEA. The JCC is co-chaired by the DG for Cooperation and Institutional Development, MALFF, and the President of the Administration Council of NLC, CMEA.

Project Director is the DG of Agriculture, MALFF, for overall responsibility of project implementation. ND of Policy, Planning and Monitoring, MALFF and Executive Director of NLC are assigned as Co-Project Manager from each government entity. C/P is assigned to each Output from relevant section of MALFF as well as NLC.



Source) Project

Note) MAF is now MALFF after July 2023.

2.5.2 Extension of the Project and Transition of PDM

The project started in September 2016 with a five-year schedule. During the first three years, the Project placed emphasis on farmers' behavioral changes through farmer dialogue and awareness-raising to comply with the cultivation calendar. However, it became clear that, with the Nakroma variety currently recommended by the government, even if the cultivation calendar was adhered to, it would be difficult to expand double cropping due to the limited irrigation period. (PDM Ver. 1.0 in amended R/D dated February 22, 2018)

The Mid-term review was conducted in March 2019, the recommendations of which included planning appropriate policies by the government such as tariffs or border measures on imported rice. Other possible measures to achieve the Project Purpose could include: 1) Diversification of paddy sales destinations from farmers; 2) Improving farmers' motivation by promoting the market/distribution of domestic rice, 3) Improving cultivation techniques and increasing rice production to meet farmers' motivation. Since November 2019, Project has focused on stimulating farmers' motivation to produce rice by securing a market where they can sell the paddy they produce, while at the same time introducing cultivation techniques to increase yields. (PDM Ver. 2.0 in amended R/D dated July 11, 2019)

In May 2020, however, it was estimated difficult for the Project to achieve its purpose within the remaining one year and four months. Also in 2020, project activities were severely restricted due to the delay in the starting of rainy season and the declaration of a national state of emergency by the government due to the spread of COVID-19. Therefore, JICA, MAF, and NLC discussed extending the project implementation period and supplementing project activities, and it was decided to extend the project period by two years and three months beyond the original completion period. (PDM Ver. 3.0 in amended R/D dated November 4, 2020)

JICA advisory mission was dispatched in November-December 2022 to discuss and agree on the priority activities for the remaining year towards the end of the project in December 2023 as well as what the C/P need to work on after the project ends for sustainability of project benefits. The PDM including indicators was revised accordingly. (PDM Ver. 4.0 in amended R/D dated March 24, 2023) (See [Appendix 12](#))

2.5.3 Monitoring

The overall project implementation is monitored according to PDM. In order to monitor the project progress and discuss relevant issues among stakeholders, JCC was held as the table below. The 13th JCC will be the occasion where the results of Terminal Evaluation will be discussed. Besides the JCC meeting, a technical meeting was held once. Meanwhile, eleven monitoring sheets were created to date every six months.

Records of JCC meetings and technical meeting

JCC	Date	Venue	attendants
1 st	2016/10/28	MAF Conference Room	26 persons
2 nd	2017/4/10	MAF Conference Room	43 persons
3 rd	2017/11/17	MAF Conference Room	44 persons
4 th	2018/5/30	MAF Conference Room	46 persons
5 th	2018/11/22	MAF Conference Room	48 persons
6 th	2019/3/27	MAF Conference Room	49 persons
7 th	2019/8/12	MAF Conference Room	47 persons
8 th	2020/3/16	MAF Conference Room	32 persons
9 th	2020/9/24	Timor Plaza, Orchid Room (On-Line)	26 persons in Timor-Leste + 10 persons in Japan
10 th	2021/4/23	(On-Line)	34 persons in Timor-Leste + 6 persons in Japan
11 th	2021/12/10	MAF Conference Room	44 persons
12 th	2022/12/6	Timor Plaza, Maubara Room	44 persons
13 th	2023/9/20 (Scheduled)	-	-

In addition to the above, a Technical Meeting was held on 2021/6/29 at MAF Conference Room with 22 participants.

Records of the preparation of the Monitoring Sheet.

Number	Term
1 st	2017 Sep - 2017 Apr
2 nd	2017 May - 2017 Dec
3 rd	2018 Jan - 2018 Jun
4 th	2018 Jul - 2018 Nov
5 th	2018 Dec - 2019 Aug
6 th	2019 Aug - 2020 Feb
7 th	2020 Mar - 2020 Aug
8 th	2020 Sep - 2021 Feb
9 th	2021 Mar - 2021 Oct
10 th	2021 Nov - 2022 May
11 th	2022 Jun - 2023 Feb

2.5.4 Communication

The project, which aims to strengthen rice value chains, involves various stakeholders and has paid attention to promote discussions and information sharing for cooperation among those involved, between the central and local governments, discussions and joint work among each output team, preparation of various reports and feedback to the parties concerned.

A weekly meeting is held every Monday morning, where Project experts and staff review the previous week's activities and present the week's activity plan (all staff prepare reports of the previous week). Long-term experts meet once a week to discuss security/safety, health management, operational management of the Project, accounting/procurement, labor management, and other issues for improvement.

A monthly report of the Project has been prepared, which was agreed in the R/D signed on July 11, 2019, among the representative of JICA Timor-Leste Office, the Director-General of MAF Agriculture, and the President of the Administration of Council of NLC. This is a measure taken to promote understanding of project activities among JICA and C/P organizations including local government. The monthly reports have been prepared in both English and Tetun.

Project Monitoring Sheets are prepared jointly by experts and C/P, and submitted to JICA about once every six months. The Monitoring Sheet is prepared in both English and Tetun, and distributed to local government office as well. More questions being asked by local government officials these days at the JCC is likely to be a result of such efforts on promoting the communication.

3: Evaluation by the Six Evaluation Criteria

This chapter overviews the Project from the viewpoint of 6 Evaluation Criteria. Regarding a judgement of the respective evaluation criteria, the following four scales of high, relatively high, relatively low and low are used in this terminal evaluation.

3.1 Relevance

The relevance of the project is rated “high” with changed environment from “relatively low” at the time of Mid-term Review in 2019.

3.1.1 Consistency with the national development policy

The Project continues to be consistent with the national development plan and the agricultural sector policy of Timor-Leste, which remain the same since the Project started.

- (1) The national development plan of Timor-Leste is the “Strategic Development Plan (SDP) 2011-2030”, the goal of which is to become an upper middle-income country by 2030 by transitioning away from its economic dependence on oil production. The SDP describes sectoral and issue-specific targets with numerical goals for the short-term (2011-2015), medium-term (2016-2020), and long-term (2021-2030). The agricultural sector is prioritized as one of key sectors for economic development and the achievement of food self-sufficiency by 2020 is included as a goal.
- (2) The “MAF Strategic Plan 2014-2020” is the agricultural sector development plan, where the Timorese government sets a specific goal to increase rice harvested area up to 50,000ha as well as to increase the ratio of domestic rice up to 70% in the rice market of the country by 2023. The Plan has not been revised since and is still effective at the time of terminal evaluation.
- (3) The parliamentary election was held on May 21, 2023, and the new cabinet was inaugurated on June 21. At present, there is no strategic plan which has been released as an official document specified on domestic rice development.

3.1.2 Response to the needs of target societies

In terms of food security, rice is one of the country's staple foods and is a major crop for the people. The government is aiming to strengthen the production, sales, distribution, and supply of domestic rice. As such, the Project responds to the needs of the target societies.

- (1) Minister of MALFF recently indicated that the main role of the MALFF within five years is to reduce dependency on imported food products by increasing local food production. Regarding irrigation, the minister also mentioned that several irrigation schemes build by the government in Viqueque, Uatulari, Baucau, Lautem, Laivai, Maliana and other municipalities have limited irrigation storage and the irrigation systems are typically less efficient, thus MALFF would work on developing additional reservoirs and dams to increase the local products⁵.
- (2) In 2024 state budget, agriculture was announced as one of the four priorities by the Prime Minister, who also mentioned that the government would guarantee food security and support modern farmers, support agricultural cooperatives, and invest in research and development to increase agricultural productivity and competitiveness⁶.
- (3) According to KONSSANTIL (National Council for Food Security, Sovereignty and Nutrition in Timor-Leste), 20% of the population suffered from food insecurity in the country⁷. The rice production in the last decades was decreased compared to recent few years, where the domestic rice production now continues to increase and MALFF acknowledges the production quantity reaches 143,000t in 2022. Domestic production is still limited, however, to meet the domestic consumption and the country imports rice from abroad. The following two tables show production quantity, harvested area and yield of domestic rice in Timor-Leste from two data sources MALFF and FAO.

⁵ <https://en.tatoli.tl/2023/07/05/malff-seeks-to-reduce-imported-foods-by-increasing-local-food-production/05/>

⁶ <https://en.tatoli.tl/2023/09/12/education-health-agriculture-and-infrastructure-become-priorities-in-2024-state-budget/14/>

⁷ <https://en.tatoli.tl/2023/01/12/konssantil-20-of-the-timorese-population-suffering-from-food-insecurity/15/>

Production Amount, Harvested Area and Yield of domestic rice and imported amount of rice

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Production Quantity (ton)	98,297	119,166	85,334	88,824	60,361	35,361	36,982	57,418	79,703	82,352	120,135	143,055
Area Harvested (ha)	35,561	35,589	26,373	28,482	18,281	10,745	11,861	18,047	22,328	21,866	29,154	34,662
Yield (ton/ha)	2.76	3.35	3.24	3.12	3.30	3.34	3.12	3.37	3.57	3.8	4.1	4.1

Source) National Directorate of Agriculture and Horticulture

Production Amount, Harvested Area and Yield of Domestic Rice in Timor-Leste

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Production Quantity (ton)	98,297	119,166	87,332	88,824	71,541	60,000	62,115	57,000	47,822	49,983	45,455	N/A
Area Harvested (ha)	35,561	41,884	27,998	28,482	23,017	19,251	22,959	22,912	22,328	18,912	26,792	N/A
Yield (ton/ha)	2.76	2.85	3.12	3.12	3.11	3.12	2.71	2.49	2.14	2.64	1.70	N/A

Source) FAOSTAT <https://www.fao.org/faostat/en/#data/QCL>

(4) From the viewpoint of food security, the price of imported rice impact on availability and affordability of the staple food. Over the past years, the imported rice is less than half in price of domestic rice. In September 2023, however, WFP reports that the imported retail rice prices marked US\$0.66/kg in July 2023, a 16% increase from July 2022⁸. Currently, 90% of imported rice are from India, 9% from Vietnam, and 1% from Thailand 1%. The report lists up 6 reasons the price is on the increase such as 1) introduction of limitations to Indian rice exports, 2) globally strong demand for rice, 3) floods in China and Pakistan, 4) reduced production in Indonesia due to reduced rainfall, and so on.

Fig.1: Imported vs local retail rice prices, 2020-2023 (US\$/kg)



Source) Timor-Leste Q1 2023 Market Monitor Report Food Security Analysis

Quantity of imported rice

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Imported amount (ton)	62,114	100,653	139,671	222,274	300,000	115,786	143,344	135,847	81,049	77,570	109,993	114,305

Source) UN Comtrade <https://comtradeplus.un.org/>

3.1.3. Response to the needs of beneficiaries

After the Mid-term Review in 2019, there has been a big change of the needs and interest of beneficiaries, which are farmers as the Project title and the Project Purpose clearly specify. Now the Project meets the needs of beneficiaries.

The Mid-term Review of the Project in 2019 pointed out that one of main reasons for decreasing production and harvested area of domestic rice is due to farmers not being motivated to grow rice for sale because the cheap imported rice was on the market and domestic rice could not compete in price. Accordingly, farmers find better income source than rice sales. In this viewpoint, the Mid-term Review writes that while the project largely meets the development need of the Timorese government, it does not directly meet the needs of farmers who have neither interest in increasing rice production nor in selling their rice in the current market situations. This is a part of the reason why the relevance was rated “relatively low” in the Mid-term review.

⁸ <https://www.wfp.org/publications/?f%5B0%5D=country%3A2096>

Such attitude of farmers, however, has remarkably changed since 2019. During the terminal evaluation, farmers in Buluto and Maliana I expressed their willingness to grow more rice mainly due to the following two reasons.

- 1) Awareness of national food security has been increased due to the impact of COVID-19 and recent world situation. The government of Timor-Leste introduced CESTA BASICA in 2020, which has motivated farmers to produce more rice as they can expect companies to come and buy local rice after harvesting. In response to enormous impacts on economy by COVID-19, the government of Timor-Leste launched CESTA BASICA (Food Basket Program) on October 27th, 2020⁹ to support families in meeting their basic needs and addressing hunger in the country, as well as to give support to farmers, producers, and local traders through the circulation of financial resources to increase national production.¹⁰ For the CESTA BASICA program implemented by MTCI and SECOOP, in 2022, twenty companies purchased 58t from Buluto and 747t from Maliana I, totaling 805t of rice from the Project sites.
- 2) The Project has provided technological support on rice production, irrigation management and rice sales as one package in a timely manner in order for farmers to realize production and sales increase. The increase of productivity is acknowledged by farmers when the Project help farmers convert from conventional rice cultivation to modern rice cultivation in the irrigation scheme. In the Project, MALFF's Good Agriculture Practice (GAP, it is called as "Pratika Agrikultur Diak (PAD)" in Tetun language) manual is used for technical guidance for 1) nursery preparation, 2) basal fertilization, 3) line transplanting, 4) weeding, 5) top dressing fertilization, 6) pest & disease control, 7) community seed production, and 8) timely harvesting. All these processes are following the already established rice technical package of the GAP. In addition to timely supports on the operation and maintenance of irrigation facilities in the Project, farmers named fertilizer, weeding, timely harvesting, and direct seedling among others as particularly effective.

3.1.4 Appropriateness of the approach

The approach of the Project to achieve its purpose has changed during its implementation. After the Mid-term Review, in particular, the Project has expanded its scope to achieve its purpose, including the preparation of policy options necessary for domestic rice promotion. It may require further discussion to evaluate the appropriateness of this scope expanded at the time of Mid-term review. The Project aims at increasing farmers' income not only by promoting rice production but also by expanding domestic rice market.

- 1) Initially, the project activities mainly focused on training and awareness-raising of farmers and stakeholders for each output: training on rice cultivation techniques for targeted farmers, training on the operation and maintenance of irrigation facilities for WUA members, training on distribution and sales of domestic rice, and 5S training on rice warehouse management for government officers. These activities were selected out of action area proposed in the Master Planning Survey conducted in 2015, based on the situation of rice production and distribution of domestic rice. The Project narrowed down the scope as pilot activity in considering implementation capacity of the government. The identified area of activity (production technique, irrigation management, and public procurement support) well capture the fundamental issue in relation to domestic rice promotion, that is, low productivity due to production technique and limited water supply combined with flooding importation of cheap imported rice significantly reduce farmer's motivation in rice farming and all these factors reinforcing each other as a vicious cycle. This situation still persists, which implies the appropriateness of the approach selected in the project.
- 2) This initial approach was found not so effective as the understanding of actual situation of farmers progressed, where they were hardly motivated to produce rice because the country is highly dependent on cheap imported rice and farmers have little opportunities to sell rice even though they produce it. Then, the Project adopt "Farmers Dialogue" approach to motivate farmers while collecting information on farmers' activities, promoting farming techniques, disseminating market information, and monitoring farmers' activities.
- 3) The Mid-term review in 2019 assess the status of project implementation and found out that public procurement system, which was foundation of project activity to secure domestic rice market, was not properly implemented at that time. The mission report suggests that the government needs to consider taking measures not only on production but also on border control and market creation (e.g., School Feeding Program, farmers market, subsidy to compensate productivity difference) to fill the price gap between domestic and imported rice. Although the domestic rice promotion is stipulated in the national and sectoral plan, the government actually hasn't implemented

⁹ <http://timor-leste.gov.tl/?p=26037&n=1&lang=en>

¹⁰ <https://estatal.gov.tl/wp-content/uploads/2021/12/Medida-da-Cesta-Basica-Relatorio-do-Secretariado-Tecnico.pdf>

such measures to realize the promotion in the current situations. Due to this reason in part, the Mid-term review rated relevance of the Project “relatively low”.

- 4) Accordingly, the revised PDM was proposed by the Mid-term Review with the addition of Output 5 “The Government promotes domestic rice by planning appropriate policies and disseminating lessons learned from the Project.” From November 2019 onwards, the Project focuses on activating domestic rice market where farmers can sell their paddy, thus providing incentive for farmers to improve cultivation techniques and can produce and sell more rice.
- 5) Also in response to the recommendation of Mid-term review, from the 2020 rainy season, instead of conducting its own “Farmers Dialogue”, the Project has used the technical package in the PAD manual (with a target yield of 5t), and has implemented FFS through MAF extension workers.

3.1.5 Appropriateness of target regions

The target region is appropriate considering the importance of Baucau, Bobonaro and Manatuto municipalities in domestic rice production. According to the statistics of MALFF, the three municipalities take up 52.5% of the rice production of the country in 2022.

Data Record of Rice Production 2022

Municipality	Area Harvested (ha)	Average Yield (t/ha)	Production (t)	Ratio (%)
Aileu	381.76	3.7	1,412.51	1.0
Ainaro	189.00	3.9	737.10	0.5
Baucau	10,066.75	4.2	42,280.35	29.6
Bobobaro	5,490.11	4.9	21,960.44	15.4
Covalima	2,531.56	4.5	11,311.02	7.9
Dili	21.25	3.0	82.88	0.1
Ermera	705.52	3.7	2,610.42	1.8
Lautem	1,012.38	3.8	3,847.04	2.7
Liquica	242.71	3.7	898.03	0.6
Manatuto	2,745.60	3.9	10,707.84	7.5
Manufahi	764.15	4.2	3,209.43	2.2
RAEOA	5,056.70	4.2	21,013.05	14.7
Viqueque	5,472.50	4.2	22,984.50	16.1
TOTAL	34,881.99	4.1	143,054.61	100.0

National Directorate of Agriculture and Horticulture

Buluto irrigation scheme (Baucau Municipality and Manatuto Municipality) was rehabilitated through Grant Aid from Japan in 2013 through 2017. It was quite acceptable to select the Buluto IS as the target area for the Project in the east of the country as an incentive for local farmers to produce and increase rice productivity as well as rice production in the country. Maliana 1 irrigation system (Bobonaro Municipality) is another irrigation scheme rehabilitated under Japan’s Grant Aid in 2007 through 2009. The condition of irrigation facilities after the rehabilitation has been full and an incentive for the farmers to increase the productivity including crops diversification for dry season cultivation.

3.1.6 Expected ripple effects to other regions and groups

The ripple effects of the introduced techniques can be reasonably expected to other region and groups. For the improvement of the farming techniques, the Project follows the already established rice technical package of MAF’s GAP manual and the extension method of FFS so that it can be replicable across the country. When applying the techniques in demonstration plot, the Project tries to minimize financial and material inputs from the viewpoint of sustainability for farmers to continue to apply the techniques on their own. In accordance with PAD, the Project only provided some minimal agricultural material/equipment as listed in the table below. In conducting FFS workshop to Lead Farmers (farmers who participate in FFS workshop), the Project hasn’t provided lunch, allowance, nor conference package except fuel for transportation and communication cost for extension workers which were requested by MAF HQ for smooth implementation. Farmers have well adopted the techniques, recognizing them as effective. Farmers are positive to continue to apply PAD in their fields if equipment and fertilizer are supported by the government in a timely manner.

Inputs by the Project to conduct FFS workshop

Material	Source	Remarks
Seed	By MALFF as free input. Though whenever subsidy delays the project also procures and supports distribution.	Nakroma variety
Fertilizer	NPK/Urea supplied from Agro dealer by JICA NASA organic fertilizer by MAF	100kg NPK and 50kg Urea for 0.5ha, Few farmers
Line markers	Made by local workshop provided by JICA	25cm, 30cm 4-5 lines
Rotary weeder	Made by local welding workshop by JICA	Metal with 15cm (for 25cm interrow) and 18cm (for 30cm interrow) width
Hand tractor	By JICA	1 piece to Maliana 1
Drum Seeder	Made by local workshop provided by JICA	30 units of drum seeder
Fuel	By MALFF as subsidy and JICA	Transportation for extension workers and for tractor
Pesticide	By MALFF as subsidy and JICA	Regent, BASSA, Besidor for FFS participant (model farmers and lead farmers)

Source) 11th Monitoring Sheet of the Project

3.1.7 Application of the Lessoned Learned from similar past projects

In the detailed planning survey report of this Project, there are some recommendations which were extracted from the lessons during the previously implemented similar projects in Timor-Leste (Irrigation and Rice Cultivation Project in Manatuto Phase-II). One key lesson is to carefully select technologies feasible in the target area, taking into consideration the current technical level and socio-economic situation. The project has well followed this guidance and selected technologies from existing good agriculture practice prepared by Timor government. Those set of technologies are simple but have effectively improved yield level of the target farmers.

The other recommendation is to make most use of system of traditional irrigation management. The Project has formulated WUA in a way that its activities include Kabwee as a key player in WUA (e.g., water fee collection, cleaning of canal).

3.2 Coherence

The coherence of the Project continues to be rated “high”.

3.2.1 Priority in Japan’s development cooperation policy

The project is consistent with Japan’s ODA policy for Timor-Leste. The Development Cooperation Policy for Timor-Leste (May 2017) by the Ministry of Foreign Affairs of Japan gives a priority on “assisting the process for establishing the foundation of sustainable development of the country” and “promoting industrial diversification to break away from an economy dependent on oil and natural gas”. Accordingly, the Rolling Plan for Timor-Leste (April 2021) writes that the county is dependent on oil and natural gas, so it is necessary to diversify its industries by strengthening the infrastructure of agriculture, fisheries, tourism, etc., and building institutional capacity. The Project is included in the prioritized area of industrial diversification.

JICA GA (Global Agenda) of Agriculture and Rural Development has five clusters, one of which is “Strengthening Food Value Chains (FVCs) in Southeast Asia” According to GA, to improve agricultural income, farmers need to produce and supply agricultural products that meet market needs and increase agricultural profits. Also, to connect diversifying and increasing market needs for agricultural products, it is necessary to build FVCs while adding value at each stage of agricultural products, from production to processing, distribution, and consumption. As such, the Project is aligned with the GA.

To date, JICA has provided support on the domestic rice production in Timor-Leste as early as from 2001 as the table below. The table covers main supports on the domestic rice production. The Project is the continuation and development of these preceding cooperation which also includes Buluto and Maliana 1 irrigation scheme.

Cyclone Seroja caused significant damage in Timor-Leste on April 5, 2021. At present, the Program for Urgent Rehabilitation of Flood Damaged Infrastructure is ongoing around the headworks of both Buluto and Maliana 1 irrigation scheme. The Cyclone also damaged Lacro IS, the headwork and main canal of which have not been functioning since. Along the main road, there are many abandoned fields where there has been no planting for the past two years.

No	Project Name	Period	Scheme	Target
1	The Project for the Rehabilitation of Lacro Irrigation Scheme	2001-2003	Urgent Grant Aid	Lacro IS
2	Irrigation and Rice Cultivation Project in Manatuto - Phase 1	January 2005 - March 2010	Technical Cooperation	Lacro IS
3	The Project for Rehabilitation and Improvement of Maliana 1 Irrigation Scheme	August 2007 - February 2009	Grant Aid	Maliana 1 IS
4	Advisors for Agriculture field (5 dispatches)	May 2008 - October 2018	Advisor	Whole Country
5	Irrigation and Rice Cultivation Project in Manatuto - Phase 2	November 2010 - November 2015	Technical Cooperation	Lacro IS
6	Project for Agriculture Master Plan and Irrigation Development Plan	September 2013 - May 2015	Technical Cooperation	Whole Country
7	The Project for the Rehabilitation and Improvement of the Buluto Irrigation Scheme	December 2013 - January 2017	Grant Aid	Buluto IS
8	The Program for Urgent Rehabilitation of Flood Damaged Infrastructure	February 2023 – August 2024	Urgent Grant Aid	Buluto IS Maliana 1 IS

(Source) Evaluation Team

3.2.2 Consistency with international agenda such as SDGs

The Project is aligned with SDG (Sustainable development Goal 1 (Eradicate Poverty) and SDG 2 (Zero Hunger) among others. For SDG 1, it is essential to reduce poverty in rural areas by promoting agriculture and related industries. SDG 2 sets the goal of eradicating hunger by 2030 while the number of chronically hungry people in the world has been increasing since 2014. The Project aims at increasing farmers' household income through domestic rice production in Timor-Leste, thus contribute to poverty eradication and zero hunger.

3.2.3 Synergistic effects with other intervention

(1) AI-Com and TOMAK

The Project has been sharing project activities and achievements of Output 1 with AI-Com and TOMAK programs. Both programs are funded by Australia, aiming at technology development and development support, respectively. The Project regularly exchange technology and opinions with the programs, including discussions regarding the revision of PAD. Their target crops are not limited to rice, but include maize, beans, and potatoes while the Project is focused on rice and rice value chain.

AI-Com (Agricultural Innovations for Communities for intensified and sustainable farming systems in Timor-Leste) is a research program between MALFF, UNTL (National University of Timor-Lorosa'e), World Vision Timor-Leste and UWA (University of Western Australia). The program is funded by ACIAR (Australian Center for International Agricultural Research) and aims to improve agricultural productivity and profitability in pilot communities. AI-Com has four objectives: (1) community based natural resource management, (2) intensive irrigated cropping system, (3) intensify crop management options for rainfed crops, (4) design and evaluate methods to increase sandalwood production with communities. Activities of the objective (2) includes the application of Urea and rice hull biochar in Vemasse to increase rice yield.

TOMAK (To'os ba Moris Di'ak or Farming for Prosperity) is a 10-year agriculture livelihoods program in Timor-Leste, funded by the Australian Government, operating in Baucau, Bobonaro and Viqueque municipalities. Following the Phase I (2016-2022), TOMAK Phase 2 (2022-2026) has three outcomes: (1) improved and sustainable government policies, programs and services, (2) more resilient agriculture-based livelihoods and improved economic empowerment, (3) improved household food security and dietary diversity. The program includes extension activity for promotion of red rice and new rice varieties.

(2) FAO

The Project is also sharing information with FAO in Timor-Leste, activities of which includes strengthening coordination role for KONSSANTIL, support to first national agriculture census, improving farming livelihood and diversity of household diets, support to smallholder fishing and aquaculture, and development of cash crop economy. The first Timor-Leste agriculture census was conducted in 2019, but it has not been available as yet. FAO also promote small-scale irrigation, but relevant information was not obtained during the terminal evaluation mission.

(3) WFP

The Project has been considering possible collaboration with WFP but hasn't realized it so far. WFP helped launch the School Feeding Programme in Timor-Leste in 2005. In 2011, the MoEYS (the Ministry of Education, Youth, and Sports) took over the responsibility for the programme, turning it into the National School Feeding Programme (NSFP). In December 2022, the tripartite MoU was signed between WFP, MoEYS, and MSA (the Ministry of State Administration) to work together in boosting the health and nutrition of school children by introducing fortified rice as a part of the School Feeding Program, targeting 79,000 children in over 400 schools in Baucau, Bobonaro and other municipalities. The Project considered supplying domestic rice for school lunches in Dili through "Loja Dos Agricultores" in collaboration with WFP as an activity of Output 3. In October 2022 and July 2023, WFP also participated in the seminar on proposed rice quality standard which had been prepared by a short-term expert.

3.3 Effectiveness

The effectiveness of the Project is "high" as the Project is achieving most of the PDM indicators.

3.3.1 Prospect of attaining the Project Purpose

The Project Purpose is "Farmers households' income from rice production in the project sites is increased through the improvement of rice value-chain (Production, Harvesting, Post-harvest and Processing, Distribution, and Sales/Consumption) achieved by collaborative approach". The Project has collected data on sales and income of model farmers, lead farmers and some conventional farmers. The data proved that the income of model farmers and lead farmers have increased compared with conventional farmers. It is difficult, however, to collect the data on all farmers' income of the Project sites.

The indicator for the Project Purpose is "More than USD 600,000 of income is generated by sales of rice by farmers in Buluto and Maliana I per year. (equivalent to 1,500 tons of paddy sales at USD 0.40/kg). Regarding the target of 1,500t, the survey conducted by the Project reveals that 1,257.2t of paddy purchase was realized in Buluto and Maliana I in 2023 (January through July) as in the table below. Thus, the Project has almost achieved the indicator for Project Purpose. Also, the table below indicates that the paddy purchase of the project sites is on the increase in general from 2017 through 2023.

For collecting data on paddy purchase as in the table below, the Project carried out (1) survey on purchasing record of companies contracted by NLC, (2) survey on purchasing record of CAAKUB and ACELDA, (3) interview with farmers on rice which were sold to private sector other than CAAKUB, ACELDA or companies contracted by NLC. That way, the Project carefully excluded the duplication (double counting) of purchases and sales among NLC, CAAKUB, ACELDA or private sector. It is also noted that the total amount of 1,257.2t could be underestimated because not all farmers necessarily remember how much rice they sold to whom.

Results of paddy purchase in Buluto and Maliana I from 2017 to 2023

Year	2017	2018	2019	2020	2021	2022	2023 (Until July)
CAAKUB	39.6t	87.7t	93.4t	59.3t	91.9t	46.1t	64.3t
Buluto	0	0	0	0	0		
Maliana I	39.6t	87.7t	93.4t	59.3t	91.9t		
ACELDA	46.9t	253.7t	113.5t	105.7t	137.9t	64.3t	30.0t
Buluto	46.9t	53.7t					
Maliana I	0	200t					
Other	No data					805.0t*	160.8t
Buluto						58t	72.1t
Maliana I						747t	88.7t
Private Sector TOTAL	86.5t	341.4t	206.9t	165.9t	229.8t	915.4t	255.1t
NLC (Food Security)	0	0	342t	42t	466t	552t (Paddy)	1,002.1t
Buluto			0	6t	0	223t	40.1t
Maliana I			342t	36t	466t	329t	962.0t
TOTAL	-	-	-	-	-	1,467.4t	1,257.2t

Source) Survey conducted by the Project.

*) In 2022, 805.0t was sold to 20 private companies for CESTA BASICA (Food Basket Program launched in October 2020 and implemented by MTCL and SECOOP). In 2023, CESTA BASICA was not implemented.

3.3.2 Major effects of the Project towards achieving PDM indicators

The Project has already achieved 10 out of 13 Indicators for Output. Except for Output 6, the Project is causing its intended effects at the Project Purpose as well as at each Output level. The appropriateness of including the preparation of policy options as Output 6 at the time of Mid-term review may require further discussion. There are many significant effects of Project realized towards achieving its PDM indicators as follows:

(Output 1) Rice farming techniques

- Persons in charge from the Municipal Service of Agriculture emphasize the importance of integrated activities from production to harvesting and sales. In the Project, extension officers have collaborated with irrigation and agro-commerce in order to increase yields. Prior to the Project, there was no such collaboration at municipalities.
- Techniques in PAD have been gladly accepted by Farmers who also express their willingness to produce more rice under the current situation. Weeding, fertilizing and cropping calendar are mentioned particularly effective while line transplanting and timely harvesting is a challenge because of its heavy labor. Farmers acknowledge that following the instruction of PAD realizes a high yield. For field leveling, farmers used hand tractors with leveling attachments the government or development donors provided first, then they level the paddy manually part by part.
- Regarding PAD, extension officers and farmers in Maliana I have learned a new technique of direct seeding through the Project. Line transplanting and broadcasting are already practiced in Maliana I, but the direct seeding with drum seeders is a new technique. Farmers in Maliana I have applied the new technique because of its lower labor costs.
- Output 1 activities achieved a high yield over 6 t/ha by combining basic simple techniques easily adopted by farmers, which is applicable to cover key production stage from tillage land preparation up to post-harvest processing, based on local technical standards. By providing two technical options incorporating instruction of not only transplanting but also direct seeding, this techniques package could be applicably transferred to other regions to other rice farming area.

(Output 2) Irrigation water management

- WUA was regenerated in both irrigation schemes and keep conducting activities abiding by the bylaw developed through the Project. These are the first WUA established in Timor-Leste and expected by the government to be a good practice to be replicated in other irrigation schemes.
- Irrigation Management Manual has been used by the Gatekeepers who are contracted officers of the municipality.
- Division of responsibility for O&M of irrigation facilities are understood among stakeholders. Municipality is responsible for O&M of irrigation facilities (headworks and main canals) and gatekeepers do the work on daily basis. WUA structure and member farmers are responsible for cleaning (sediment removal and weeding) as well as minor repairs. MALFF is responsible for large-scale maintenance or rehabilitation works of irrigation facilities.
- WUA cooperate with the authorities (subdistrict administrator and village chief) for collecting water fee. At Buluto IS, Kabwee (water manager per canal since the time of traditional irrigation) are responsible for the collection and help realize its high collection rate.
- For the maintenance operation and management maintenance of irrigation facilities, the project led the initiative of farmers and WUA by directly involving WUA's members and farmers through information orientations to farmers and annual representative meeting. For this reason, activities were narrowed down to essential requirement, and participatory decision-making process was introduced. This strategy led successful improvement of irrigation management in the target irrigation scheme.

(Output 3) Sales of rice to private Sector

- CAAKUB, a farmer association, has been strengthened in Maliana I by the Project providing fertilizer, pesticides, and threshing machine and working on harvesting and post-harvest processing for rice quality control.
- Farmer Information Card was created in Maliana I, which contain a lot of information such as field, varieties grown, and seeds, etc. The card is used by Municipality MALFF and CAAKUB for information to know when and how much to buy paddy as well as to evaluate the moisture content of the paddy.
- Maliana Rice Commission (MRC) was established in December 2022 by engaging all stakeholders to ensure the quality and promote the sales of Maliana rice which is very popular in Dili. MRC has been testing the moisture content of the paddy supported by the Project providing a moisture meter. In August 2023, MRC released its first product bearing the logo.
- Domestic rice is selling stably at the "Loja (farmers market store)" in Dili, which opened through the support of the Project in 2019 under the name of "Loja Dos CAAKUB Agricultores" where MALFF Agro-commerce

assigned staff until June 2023. Recently, Loja has changed its name to “Loja Hakbiit Agricultores” and became a private enterprise by acquiring a new commercial license from MTI. At Loja, red rice and black rice are especially popular among consumers.

(Output 4) Purchasing of rice by the Government

- NLC and its warehouses have been benefited from training conducted in the Project based on “the Rice Quality Control Manual”, “SOP for purchasing rice from NLC”, and “5S-Kaizen Training for NLC.” There are six NLC warehouses in the country, out of which Tibar, Maliana, Bebora/Dili were observed clean, sorted and set-in-order during the mission.
- NLC conducted Socialization Workshops (briefings for farmers) in January and February 2023 to explain purchasing procedures in Maliana and Buluto. The Project supported the workshops (e.g., reserving subdistrict government conference room, supplement the explanation of purchasing procedures, and assist farmer groups and private parties in preparing necessary documents.)
- There were some complains from local farmers about rice purchasing process by NLC, saying that payment are not done on time or delayed for long time. This is due to a government rule that the payment is to be processed through bank transfer. Farmers prefer selling rice to private companies that pay in cash to purchasing by NLC.
- The SOPs and distribution plans introduced by the Project led farmers to have more options for selling domestic rice, and the program has achieved a certain level of success in terms of stable food supply. It also led to an increase in the number of private companies participating in the purchase of domestic rice.

(Output 5) Information sharing with other irrigation scheme

- Meetings and seminars have been organized to share project activities related to dry and rainy season cultivation, operation and maintenance of irrigation facilities, and rice quality guidelines with the five modern irrigation scheme: Larisula, Caraulun, Oebaba, Bebui and Tono.

(Output 6) Option of rice promoting policy

- MAF Minister of the former government mentioned that the task force should be set up as soon as possible at the meeting with the CMEA Minister and advisors with the coordination of MAF person-in-charge in June 2022.

3.3.3 Response to the recommendations of Mid-term Review (March 2019) and Advisory Mission (December 2022)

All the recommendations made to the Project have been effectively responded except for the one to promote policy dialogue with Taskforce. Despite many efforts being made as activities of Output 6, the task force has not been realized yet. One recommendation made to the Timorese government was about the implementation of policies such as purchasing domestic rice for school feeding programs or introducing quotas on imported rice. CESTA BASICA implemented by the government in 2020 through 2022 to address the economy affected by COVID-19 had a significant impact on nurturing domestic rice production.

At the Advisory mission, two categories of recommendations were made: “before the project completion” and “after the project completion”. As for the recommendation on before the project completion, the Project has implemented most of these recommendations effectively. There are some recommendations which still need to be addressed such as securing budget for the continuation of activities and establishing task force on rice policy. These recommendations, together with those on “after the project completion”, have been consolidated into the recommendation at the terminal evaluation. ([See Appendix 13](#))

3.3.4 Promoting Factor

(Of planning/design of the Project)

None.

(Of implementation of the Project)

(1) Support for promotion of domestic rice provided by the former government administration

Back in 2018, the former Prime Minister expressed positive and strong support for domestic rice promotion since his taking office. The former Minister of MAF attended the launching ceremony of nursery transplanting organized both in the Buluto and Maliana I irrigation schemes in December 2018. The former First Lady also provided positive support for domestic rice promotion; she purchased rice from CAAKUB and attended a signing ceremony for CAAKUB’s making a contract with hotels and restaurants. Such support greatly contributed to encouraging farmers

in the project sites.

(2) Positive support for CAAKUB and Loja provided by MAF

For several years, CAAKUB had not been functioning as a farmer association, and it was reorganized in 2016 with a great support from MAF. CAAKUB started to purchase paddy from farmers in Maliana I and this has contributed to increase in rice sold among farmers in Maliana I and income by rice selling.

Loja (farmers market store) opened in Dili at Timor Plaza and Fatu-hada in 2019 through the support of MAF and the Project. MAF Agro-commerce assigned staff until June 2023 when Loja became a private enterprise by acquiring a new commercial license from MTI. MALFF Agro-commerce continue to support Loja, subsidizing the rent of the stores.

(3) Positive support for promotion of domestic rice provided by the ACELDA Company

While ACELDA was originally involved with exporting business of candlenuts oil, it started a domestic rice sales business in 2014 to promote domestic materials, although the local rice business is not yet profitable for them. ACELDA's engagement in purchasing paddy from farmers in Buluto has greatly contributed to increase in rice sales in the project.

(4) Increased awareness of national food security due to COVID-19 and recent world situation

In response to the pandemic COVID-19, the Government of Timor-Leste declared a State of Emergency on 28 March 2020, which enforced travel restriction on the people and caused disruption of rice value chain. In addition, on 25 March 2020, Vietnam which accounted for approximately 80% of the rice imported to Timor-Leste that time, temporarily banned rice export to ensure its domestic supplies during COVID-19. These circumstances increased people's concern and awareness about the food security. In October 2020, CESTA BASICA program was introduced in Timor-Leste and overall demand on domestic rice increased and farmers' motivation in rice farming significantly improved. Furthermore, concerns about food security are increasing in many countries due to recent world situation such as Russia's invasion into Ukraine and the related rise in global food prices.

3.3.5 Hindering Factor

(Of planning/design of the Project)

(1) Trend of a prominent position of imported rice in the rice market of Timor-Leste

Timor-Leste is importing considerable amount of rice from abroad to fill the gap between domestic production and consumption. Since domestic rice is more expensive, almost double in price, than imported rice, people generally tend to buy cheap imported rice. The Project has been implemented under such circumstances where domestic rice is not in high demand among general consumers compared to cheaper imported rice.

(2) Insufficient long-term strategy and clear policy measures to promote domestic rice in Timor-Leste

Although the government has a policy to be self-sufficient in 2020, it cannot be achieved without a well-designed long-term strategy and clear policy measures. The insufficient long-term strategy, policy measures, as well as budget supports to realize the target have discouraged the Project to increase the production amount of rice. One of fundamental issue to formulate rice policy is a lack of basic statistics regarding rice production and consumption. Recent direction toward membership acquisition for WTO/ASEAN might become a promoting factor for rice policy including domestic support, border control for food security and domestic rice promotion. However Timor-Leste government need to be well prepared for the negotiation.

(Of implementation of the Project)

(1) Low motivation for rice cultivation among farmers in early stage of the Project

Farmers in the project sites were not so motivated to cultivate rice as farmers had little access to the rice market for sale, because of which the Project had to change its initial approach. In the course of the project implantation, however, such attitude of farmers has greatly changed after COVID-19 as already described above.

3.4 Efficiency

The efficiency of the Project is rated "Relatively low" due to the exceeded budget and cooperation period than initially planned at the time of detailed planning survey in 2016. This is, however, in part due to the adverse effects of the pandemic COVID-19, which affected not only the Project but also across the entire society. Another reason is

that the approach of the Project to achieve its purpose changed during its implementation as explained in “3.1.4 Appropriateness of the approach”

3.4.1 Inputs to the Project from Japanese side

Inputs from the Japanese side are good in terms of sharing knowledge to local farmers through Project technical staff allocated for the purpose to improve rice production as well O&M of irrigation facilities in Timor-Leste. There have been a few changes on project approach and project scope in the course of its implementation, which may have affected the efficiency of the Project. The dispatch of long-term experts in charge of Output 2 (Participatory Irrigation Management) and Output 4 (Rice Purchasing and Distribution) has been delayed after the Mid-term Review. As for the Output 6, which was newly added at the time of Mid-term review, long-term expert has not been dispatched during the cooperation period and third country training was not conducted as planned due to COVID-19 situation. The Project contracted National Staff and field staff to implement activities who are also translator as well as interpreter between English and Tetum language.

3.4.2 Inputs to the Project from Timor-Leste side

Inputs such as assignment of officers, fields, coordination among stakeholders are good in general for Timor-Leste side. MALFF officers and municipality staffs including extension officers have actively involved in the Project activities.

3.4.3 Impact of COVID-19 on project efficiency

During the pandemic COVID-19, people become aware that strengthening food security is important through actions on securing food for those who are vulnerable and on increasing domestic agricultural production and productivity in the country, which led to the implementation of CESTA BASICA program.

In response to the COVID-19 pandemic and the subsequent suspension of dispatch of long-term expert, the Project have created on Google Drive a dedicated data platform to manage and utilize various reports and materials prepared in the Project. For Output 1, the FFS progress sheet (log sheet), rice growth monitoring sheet, yield survey sheet, and photos are uploaded onto the platform, and are shared among experts, counterparts, project staff and field staff on PCs, tablets, and mobile phones, thus also sharing analysis and insights. In Output 2, the database have been used to create a list of WUA association members, land registers, water depth of irrigation canals monitoring, progress data of water fee collection activities, etc., to improve the accuracy and efficiency of activities. Regarding Output 3 and Output 4, in cooperation with Bobonaro MALFF, a comprehensive database of farmers on general cultivation types and post-harvest processing was established and managed to improve traceability for Mariana Rice Committee and CAAKUB.

3.5 Impact

Impact of the Project is rated “relatively high” as the Indicator for the Overall Goal can be achieved by the Timor-Leste side 3 years after the Project if Timor-Leste continues to take the initiative in continuing the activities after the Project.

3.5.1 Prospect toward achieving the Overall Goal

The Overall Goal is “The improved rice value chains are sustained in Buluto and Maliana I with the initiative of the Government of Timor-Leste.” In terms of PDM Indicators below, it is possible that the indicator for the Overall Goal will be achieved by the Timor-Leste side 3 years after the project termination in December 2023 if the current activities continue. Situation analysis is described under the Sustainability of the next section.

- 1) The production in Buluto and Maliana I is maintained or increased compared to the end of the project.
- 2) The Buluto and Maliana I irrigation facilities are maintained by the WUA (with the support of MAF).
- 3) The amount of domestic rice sold in Buluto and Maliana I is maintained or increased compared to XX (to be determined at the Terminal Evaluation of the project).

3.5.2 Important Assumption toward Overall Goal

Following important assumption of the latest PDM still applies in order for Timor-Leste side to attain the Overall Goal three years after the Project completion, which are:

- (1) massive natural disasters (such as drought and flood) do not occur.
- (2) Budget for purchasing domestic rice is prepared and its disbursement is conducted by NLC to meet its target amount of domestic rice purchase.”
- (3) Agricultural inputs as government subsidies such as seeds, fertilizer and machines are supplied properly in quality, quantity and timing.

Serious natural disaster not destroying the irrigation scheme is an important condition toward achieving the Overall Goal. At present, the grant aid “Program for Urgent Rehabilitation of Flood Damaged Infrastructure” is ongoing around the headworks of both Buluto and Maliana I irrigation scheme which were seriously damaged by the Cyclone Seroja in April 2021. This grant aid make it possible for the Overall Goal to be achieved in spite of the event of natural disaster.

The Cyclone also caused tremendous damage on Laclo irrigation scheme which had been supported by JICA technical cooperation “Irrigation and Rice Cultivation Project in Manatuto - Phase 1 and 2”. Now, the Laclo irrigation facilities have not been functioning at all, and there are many abandoned fields are observed where there has been no planting for the past two years.

3.5.3 Other impacts

There have been several impacts of the Project observed in in areas other than the Project sites or activities of relevant organizations as follows:

- (1) Second cropping is common in Buluto IS during the dry season. Farmers from Cai Rui IS participated in FFS in 2022 dry season conducted in Bluto, then applied the learned farming techniques in their own paddy fields together with extension workers. Cai Rui sub-district is located in the upstream of Vemase sub-district.
- (2) The Project has started direct seeding with drum seeder in Maliana 1 IS. In 2022, the Project received inquiries from TOMAK regarding the drum seeder. The Project crafted it at a workshop and provided it with a manual in the Titun language. Now the drum seeder is used for direct seedling at Viqueque municipality. Recently, TOMAK placed another order for drum seeders.
- (3) The Project has provided technical support to the Waidaba Association, a seed cooperative in Venilale sub-district of Baucau Municipality, and has worked on producing high-quality seeds. The Project has monitored the production status and purchased seeds from the seed cooperative for use in project activities.
- (4) Rotary weeders have been used in Buluto IS by the Project. Having seen the equipment, World Vision placed an order for about 100 units of rotary weeder in 2021.
- (5) Officers of regional logistic center in Oecusse Municipality with their own budget participated in the on-the-job training (OJT) session on rice quality control, which was conducted by the Project in Dili on July 13, 2023. As for the OJT session on rice quality control conducted in Baucau on July 27, 2023, the participants were not limited to MALFF and warehouse officers but also included ACELDA, Vemasse Credit Union, and WFP.
- (6) Starting with the 2021 rainy season, the Project has conducted joint research with the University of Tokyo Graduate School of Agricultural and Life Sciences (Professor Kato's laboratory) on transplanting, direct seeding techniques, surveys of direct seeding farmers, production costs, etc. In Maliana region, approximately 70% of farmers are practicing broadcasting. Together with the same laboratory, the Project prepared an FFS technical guidance for Wet-Seeded rice, and based on it, the Project implemented the row direct seeding cultivation in both rainy and dry season. Students from the same laboratory also visited the Project three times in 2022 and 2023, and conducted agronomic survey to assess impact of fertilizer, water management and herbicide on direct seeding under water limited environment. As many farmers are practicing direct seeding, MAF is now considering including the technique into PAD.
- (7) There are no negative impacts observed or reported during the evaluation mission of the Project on environment, societies,

3.6 Sustainability

Overall sustainability of the Project is rated as “Relatively Low” where the continued reality of financial constraints and its uncertainty are widely indicated during the evaluation mission. From the organizational and human resources aspect as well as from technical aspect, the prospect of sustainability is more than “Relatively Low”.

3.6.1 Policy and Institutional Aspect

The Timorese Government has made it clear to give priority to the domestic rice promotion under SDP and MAF Strategic Plan. CESTA BASICA in 2020 through 2022 to support families in needs as well as farmers and local traders with the circulation of financial resource under COVID-19 actually stimulated domestic rice production and sales. The Prime Minister announced that in 2024 state budget the agriculture is a priority, guaranteeing food security, supporting modern farmers as well as agricultural cooperatives, and investing in R&D to increase agricultural productivity and competitiveness. Minister of MALFF recently indicated that the main role of MALFF within five years is to reduce dependency on imported food products by increasing local food production. As such, the political support for the domestic rice promotion can be expected in Timor-Leste even after the Project termination, and this support will be strengthened if a long-term strategy on domestic rice with policy measures are discussed, agreed and introduced among relevant ministries in the government.

3.6.2 Organizational and Human Resources Aspect

The central and local authorities including municipalities, sub-districts and villages of Buluto IS and Maliana 1 IS have actively involved in project activities. Officers of central and local governments have taken major roles in promoting activities with farmers, WUA members, traders and private companies in their own duties. Also, the importance of integrated activities from production to harvesting and sales is emphasized by officers of Municipal Service of Agriculture during the evaluation mission, which notifies that the purpose of the Project of improving rice value-chain (Production, Harvesting, Post-harvest and Processing, Distribution, and Sales/Consumption) is well understood by the Timorese authorities. In the Project, extension officers have collaborated with irrigation and agro-commerce in order to increase rice yields. Prior to the Project, there was no such collaboration at municipalities. Organizational and individual capacities have been developed while implementing project activities as well as with trainings and tangible outputs (manual, SOP, newsletter etc.) prepared by the Project.

3.6.3 Financial Aspect

The Project has always taken into consideration the sustainability of project benefits in implementing its activities. For example, when conducting FFS workshop, the Project tries to minimize financial and material inputs for farmers to apply the techniques on their own and for central/local government to take over the support provided by the Project (i.e., fuel for transportation of extension worker, fertilizer, some equipment such as rotary weeder and drum seeder). Farmers are positive to continue to apply PAD in their fields if equipment and fertilizer are supported by the government in a timely manner.

The costs necessary for implementing activities are already calculated by the Project and this can be used as a good reference for the Timorese C/P to consider preparing budget to take over the activities. Followings are some examples of cost calculated:

- 1) Output 1: Costs (input materials and equipment) of implementing techniques recommended in PAD for row transplanting as well as direct seeding, each 1 ha, were calculated and shared with the Extension Department.
- 2) Output 2: Actual amount supported for fuel costs for irrigation staff and gatekeepers
- 3) Outcome 3: Expenses spent on activities related to the Mariana Rice Committee (including rice quality control training)

Based on the achievement of the Project, municipal governments have prepared 2024 budget to continue and develop some activities; for example, Bobonaro Municipal Service of Agriculture has included budget for expanding the use of drum seeders to other subdistricts as well as budget for promoting Maliana Rice Commission regarding rice quality control. Depending on the country's fiscal situation and developmental priorities, however, the amounts approved by the Ministry of Finance are usually limited to cover only the administrative and operational costs. As such, Municipal Service of Agriculture usually rely on the MALFF for agricultural inputs such as seeds and fertilizers.

MALFF needs to support a total of nine modern irrigation facilities including Buluto IS and Maliana I IS. The government aims to increase domestic rice production and has plans for inputs such as rice seed, fuel, and fertilizer, but MALFF admits there are budget constraints and that their supports are limited at present while hoping to secure the budget to meet the demands of farmers. During the evaluation mission, however, DG of Agriculture and ND of Irrigation shared information that the following activities are ongoing or planned:

1. Ongoing Government Project on rehabilitation of Irrigation Facilities in Galata, Baucau Municipality and Laivai,

Lautem Municipality.

2. Budget approved by National Development Agency (ADN) for other 3 big irrigation schemes: Seical in Baucau; Irabere in border between Lautem and Viqueque; Maliana II in Bobonaro Municipality.
3. Budget allocated for rehabilitation of Oebaba Irrigation scheme in Covalima Municipality.

3.6.4 Technical Aspect

Technical capacities of all the target beneficiaries including central/local government officials (MALFF, NLC, Municipal Service of Agriculture), farmers and WUA at Buluto and Maliana I, and CAAKUB have been improved during the Project. From the viewpoint of technical aspect, sustainability can be expected at each of the rice value-chain (Production, Harvesting, Post-harvest and Processing, Distribution, and Sales/ Consumption)

As with the improvement of the farming techniques, the Project follows the already established rice technical package of MALFF's GAP manual and the extension method of FFS so that it can be replicable by MALFF. Farmers have well adopted the techniques, recognizing them as effective, and they are positive to continue to apply PAD in their fields if equipment and fertilizer are supported by the government in a timely manner.

Regarding the irrigation water management, WUA is conducting activities based on the Annual Work Plan. Water fees have been collected based on the WUA regulation. In Maliana I, the collected fee were utilized appropriately for repair. Daily operation (gate operation) and maintenance of main irrigation facilities are conducted by gatekeeper while supervised by municipal irrigation officers, in accordance with Irrigation Management Manual. Irrigation officer of Buluto IS reports to MALFF in the form of quarterly reports. Irrigation officer of Maliana I is preparing a semi-annual report for submission to MALFF.

Regarding the sales to private sector, CAAKUB continue to take the initiative to purchase paddy from the member farmers. With Farmer Information Card, CAAKUB understand farmers' cropping conditions so that CAAKUB and Bobonaro Municipal Service of Agriculture can provide the services in a timely manner. CAAKUB manages equipment provided by the Projects properly such as powder machine and moisture meter. CAAKUB is also a member of Maliana Rice Commission newly established in December 2022 for the quality control of Maliana rice which is very popular in Dili.

As for the purchasing by the government, NLC is expected to continue to purchase rice from farmers based on the Purchase Plan. NLC is following the SOP prepared in the Project to ensure the purchase and payment procedures efficiently. The 5S/KAIZEN check sheet is being used at the three project warehouses: Mariana, Dili, and Tibar, where warehouse management tasks (cleaning, organizing, etc.) are filled out once a month and sent to NLC. NLC's warehouse are kept clean, sorted and set-in-order utilizing 5S-KAIZEN. The results of quarterly stocktaking of warehouses are tabulated in PC and reported to NLC.

4: Conclusion and Recommendations

4.1 Conclusion

The evaluation results based on the Six Evaluation Criteria are summarized as the table below.

Summary of the evaluation results

Criteria	Evaluation	Significant Points
Relevance	High	The Project continues to be consistent with the government policy and the needs of domestic rice production in the country.
Coherence	High	The Project consistent with Japan's ODA policy for Timor-Leste. There are some synergistic effects with other intervention.
Effectiveness	High	The Project is achieving most of the PDM indicators.
Efficiency	Relatively Low	The project exceeded budget and cooperation period than initially planned. This is largely due to the adverse effects of the pandemic COVID-19.
Impact	Relatively High	The Indicator for the Overall Goal can be achieved by the Timor-Leste side 3 years after the Project if Timor-Leste continues to take the initiative in continuing the activities after the Project.
Sustainability	Relatively Low	The continued reality of financial constraints and its uncertainty are widely indicated during the evaluation mission. Based on policy and institutional/organizational and human resource/financial aspect, Timor-Leste is expected accelerate or continue policy development, budgeting and staffing.

4.2 Recommendations

Based on the findings of the Joint Terminal Evaluation, the Terminal Evaluation Team (hereinafter referred to as "the Team") would like to make the following recommendations to be implemented by the end of the Project with a view to ensuring the Project's sustainability and achieving the overall goal.

Overall Recommendation

[Points of attention]

The Project have shown significant impact to improve domestic rice production and sales at two target sites. However, this positive outcome can be sustained and expanded under the condition that central government will set appropriate policy to maintain/expand domestic rice market through public and private channel, and government provides timely support on operation and maintenance of irrigation scheme which constantly suffered from natural calamity.

To Project, MALFF, NLC and other responsible agencies

[Before the Project completion]

- Discuss and revise PDM regarding the indicator 3) of Overall Goal based on the suggestion from the Team.

To Project

[Before the Project completion]

- Share the lessons learned from the Project with Counterparts in Timor-Leste to enhance their motivation, via a seminar or workshop.

To MALFF, NLC and other responsible agencies

[Before the Project completion]

- Continue to make efforts to secure budget for continuation of essential activities to sustain the outcomes achieved by the Project.

[After the Project completion]

- MALFF in collaboration with the other responsible agencies to continue the essential activities to sustain the outcomes achieved by the Project.

Output 1

To Project

[Before the Project completion]

- Provide technical recommendation for PAD guideline, extension manual and TOT(Training on Trainers) material to include direct seeding technology and other.

To MALFF

[After the Project completion]

- Maintain Farmers Field School (hereinafter referred to as “FFS”) activities
 1. ensure timely provision of farm inputs required to implement PAD technology
 2. operational cost in the Project area(e.g. cost of agriculture extension personnel expenses)

Output 2

To Project and Water Users Association (hereinafter referred to as “WUA”)

[Before the Project completion]

- The Team appreciates current project practice to support operation of WUA including Operation and Management (hereinafter referred to as “O&M”) of irrigation scheme and collection of water fee and requests steady implementation and monitoring of current practice up to the Project completion including,
 - Enhancement of transparency for water fee collection and usage among WUA member through regular communication, improvement of water fee collection procedure as appropriate (ex. provision of certificate to water fee collector with a signature of Suco chief and WUA chairperson)
 - Daily operation of irrigation O&M following Irrigation Management Manual (hereinafter referred to as “IMM”) and annual workplan, including trial on rotational irrigation

To WUA

[After the Project completion]

- Review water fee collection status and collection method regularly, update water fee collection method as necessary.
- Review the result of irrigation O&M status including the result of rotational irrigation regularly, update IMM as necessary.

To MALFF and the other responsible agencies

[Before the Project completion]

- Steady implementation and monitoring of irrigation O&M by each stakeholder (Gatekeepers (hereinafter referred to as “GKs”), Prefecture and MALFF), which include the following;
 - Daily operation (gate operation) and maintenance of main irrigation facilities by GKs supervised by municipal irrigation officers, in accordance with Irrigation Management Manual.
 - Reporting System implementation which support regular reports from Prefecture to MALFF.

[After the Project completion]

- Clarify the role and responsibility in irrigation O&M among all stakeholders including national government, provincial/municipal government, and WUA. This process could include enactment of irrigation law.
- Secure resources for irrigation O&M, especially maintenance and rehabilitation of main canal and headworks

Output 3

To MALFF

[After the Project completion]

- Discuss among stakeholder and provide recommendation about possible options to enhance competitiveness of CAAKUB as farmer association based on the experience through the Project.
- Discuss among stakeholder and provide recommendation about possible options to promote application of rice quality standard.
- Assess provided options and consider possible applicability

Output 4

To NLC

[Before the Project completion]

- Update SOP version 1 and 2 to include warehouse management control and distribution plan (including 5S/KAIZEN).

[After the Project completion]

- Discuss among stakeholder and provide recommendation about possible options to reduce workload to follow all the requirement in procure process from farmer group.
- Maintain public rice purchase from farmer group by NLC to improve farmers access to market following purchase plan and SOP.
- Review rice purchase procedure regularly and update as required, especially rice purchase from farmer groups.

Output 5

To MALFF and other responsible agencies

[Before and after the Project completion]

- Counterparts in Timor-Leste are expected to explore the possibilities to share and apply the good practices of the Project to other areas through their regular activities and mandate based on the Implementation and Action Plan.

Output 6

To MALFF and other responsible agencies

[Before and after the Project completion]

- It is recommended that either of the following 1 or 2 would be accelerated to discuss among the relevant Ministries regarding the policy and direction of the domestic rice promotion.
 1. the procedures for establishing the Rice Task Force
 2. Incorporation of Rice Task Force's activities into the existing framework (e.g. KONSSANTIL: National Council on Food Security, Sovereignty and Nutrition in Timor-Leste)
- The Rice Task Force or incorporated framework are expected to formulate a policy and future directions of domestic rice production (including to what extent self-sufficiency of domestic rice is to be pursued, despite tremendous effort and investment required such as Irrigation facilities, marketing infrastructure, policy measures to control cheap imported rice flooding into domestic market).

4.3 Lessons Learned

- (1) Implementing with domestic rice purchase by Government and support activities of overall rice value chain in parallel.

In this project, production technology, irrigation management, and sales promotion activities were conducted as a single package to improve the overall rice value chain. The timely introduction of the package in line with the period of expanded government purchases of rice enhanced complementary of each activity and has led a significant impact on farmer's motivation and overall rice value chain.

- (2) Promoting Domestic rice through improved quality management

While there is a general preference for domestically produced rice in Timor-Leste, there are also disincentives: first, the price difference is nearly double with that of imported rice. Second, quality management was not properly conducted after harvest and distribution. The project has been experimenting with an approach of setting quality standards for rice, applying this standard with labeling that indicates domestic rice with quality assurance to expand marketing channel. While this direction seems appropriate, it is an approach that requires continuous efforts and expansion of the scale of activities, and strategic efforts on the part of the government are needed in the future.

- (3) Managing and maintaining foundation irrigation facilities by government

The establishment of implementation structure that clarifies the role and responsibilities of central ministries, local governments, and WUA is essential for proper irrigation management. The project significantly improved O&M of irrigation scheme by WUA and municipal irrigation department, however it still suffered from natural calamity which damage irrigation system and hinder daily operation of the irrigation. Timely budget allocation and service provision based on the defined responsibilities is critical under such situation.

- (4) Fostering Government Leadership in promoting food security policies

Since Food security is a national responsibility, it is impossible for individual private companies and farmers to achieve food security. It is essential for the government to set appropriate target to balance private market channel and public purchase of domestic rice, together with stable importation for ensuring food security. The project provided number of achievement and lessons to promote domestic rice through mainly bottom-up approach. This learning become effective furthermore to be integrated with higher level food security policy.

(5) Sharing information continuously since Project Formation

Project members should understand the background and objectives of a project. These information will promote activities during the project and to maintain and improve the results after the project is completed.

Appendix 1: Project Design Matrix

Project Monitoring sheet I (Project Design Matrix (PDM) Version 4.0)

Project Names: The Project for Increasing Farmers Households' Income through Strengthening Domestic Rice Production in Timor-Leste

Project Period: 7 years and 3 months (September 2016 – December 2023)

Implementation Agencies: Ministry of Agriculture and Fisheries (MAF), Coordinating Ministry of Economic Affairs (CMEA), Local Authorities in the Project Sites

Project Sites: Project Sites for each Output are as follow:

Output 1: Buluto and Maliana I irrigation schemes, and its surrounding area

Output 2: Buluto and Maliana I irrigation schemes

Output 3: Buluto and Maliana I irrigation schemes, its surrounding area, and Dili

Output 4: Buluto and Maliana I irrigation schemes, and its surrounding area, Rice stockpiling warehouses in Dili and Maliana

Output 5: Areas outside Buluto and Maliana I irrigation schemes

Output 6: Whole country

Direct Target Groups: Staff of Respective Ministries and Municipalities, Targeted Farmers in Baucau, Manatuto, Bobonaro and other municipalities, and Targeted Rice Retail Traders

Indirect Target Groups: All Farmers in Baucau, Manatuto, Bobonaro and other targeted areas, Private Sector related to Rice Distribution and Marketing, and Consumers

(As of December 6th, 2022)

Narrative Summary	Objectively Verifiable Indicators	Means of verification	Important Assumptions
Super Goal			
Livelihood of farmers living in Timor-Leste is improved through increase in income by improved rice value-chain.	- The TL government is strengthened to share The project outcomes in The project sites with stakeholders over The country. - The production of domestic rice in Timor-Leste is stable or increases for five years after The achievement of The Overall Goal of The Project.	- Government records and other official documents	
Overall Goal			
The improved rice value chains are sustained in Buluto and Maliana I with the initiative of the Government of Timor-Leste.	1) The production in Buluto and Maliana I is maintained or increased compared to the end of the project. 2) The Buluto and Maliana I irrigation facilities are maintained by the WUA (with the support of MAF). 3) The amount of domestic rice sold in Buluto and Maliana I is maintained or increased compared to XX (to be determined at the Terminal Evaluation of the project).	- Records of CAAKUB Farmers' Association, ACELDA, and NLC - Government records and other official documents	The Government implements appropriate policies for domestic rice promotion.
Project Purpose			
Farmers households' income from rice production in the project sites is increased through the improvement of rice value-chain (Production, Harvesting, Post-harvest and Processing, Distribution, and Sales/Consumption) achieved by collaborative approach[1].	More than USD 600,000 of income is generated by sales of rice by farmers in Buluto and Maliana I per year. (equivalent to 1,500 tons of paddy sales at USD 0.40/kg).	- Records of CAAKUB Farmers' Association, ACELDA, and NLC - Government records, other official documents - Project monitoring sheets /progress reports -Farmers' Dialogue Report	- Massive natural disasters (such as drought and flood) do not occur. - Budget for purchase of domestic rice is prepared and its disbursement is conducted by NLC to meet its target amount of domestic rice purchase.
Narrative Summary			
Output			
1 System of rice farming is improved.	1-1 Yield at demonstration plots achieves 6 ton/ha at the rainy season in 2023. 1-2 Average yield of participated farmers on FFS in Buluto and Maliana I site increases to 4.5ton/ha at the rainy season in 2023 from 2.5 t/ha and 2.9t/ha in 2019 respectively. 1-3 Cultivation area in Buluto increases to 600 ha at the rainy season in 2023 from 426ha in 2019 [2].	- Baseline and end-line surveys - Government records, other official documents - Project monitoring sheets /progress reports - Farmers' Dialogue Report	- Massive natural disasters (such as drought and flood) do not occur. - Budget for purchase of domestic rice is prepared and its disbursement is conducted by NLC to meet its target amount of domestic rice purchase.
2 System of irrigation water management among farmers is improved.	2-1 More than 50 % of beneficially farmers pay water fees in 2023 from 0% in May 2019. 2-2 Main canal and sub-canals of irrigation schemes are cleaned and maintained by farmers in Buluto and Maliana I.	- Baseline and end-line surveys - Government records, other official documents - Project monitoring sheets /progress reports - Farmers' Dialogue Report	- Agricultural inputs as government subsidies such as seeds, fertilizer and machines are supplied properly in quality, quantity and timing.
3 System of domestic rice distribution/ sales is improved.	3-1 A total of more than 500 tons of paddy is sold by farmers in Buluto and Maliana I to private sectors such as CAAKUB and ACELDA per year. 3-2 Marketing channel for domestic rice is expanded to private sectors such as restaurants, hotels, and farmers' market.	- Records of CAAKUB Farmers' Association and ACELDA - Baseline and end-line surveys - Government records, other official documents - Project monitoring sheets /progress reports - Farmers' Dialogue Report	
4 System of domestic rice purchasing / distribution system by the government is improved.	4-1 Plan of government[3] purchase and distribution of domestic rice is prepared annually. 4-2 Appropriate system of payment[4] from NLC to farmers and private companies is introduced so that the timing of payment meets farmers' needs. 4-3 More than 1,000 tons of paddy is purchased by NLC in Buluto and Maliana, and its surrounding area per year. 4-4 Stocktaking of NLC warehouse is conducted and reported quarterly to the project.	- Baseline and end-line surveys - Government records, other official documents - Project monitoring sheets /progress reports - Farmers' Dialogue Report - Records of NLC	
5 The lessons learned from the Project are shared with stakeholders in other municipalities under the initiative of MAF.	5-1 Workshops on the project activities are held for stakeholders in five modern irrigation schemes[5] to share Collaborative Approach under the initiative of MAF.	- End-line surveys - Government records, other official documents - Project monitoring sheets /progress reports	
6 Necessary options for formulating domestic rice promotion policies are prepared and shared by the stakeholders.	6-1 A roadmap of the policy for increase of domestic rice production, is discussed by Taskforce.		

Activities	Input		Pre-condition
	Japanese Side	Timor-Leste Side	
<p>0 Baseline Survey (first six months) and End-Line Survey (last six months)</p> <p>0-1 Design and conduct the baseline survey in first six months of the project for gathering detailed data/information required for the implementation of the project.</p> <p>0-2 Revise the project documents (PDM, Plan of Operation (PO), etc.) and get approval from the Joint Coordinating Committee (JCC).</p> <p>0-3 Design and conduct the End-Line Survey for evaluating results of the project in last six months of the project.</p> <p>1 System of rice farming is improved.</p> <p>1-1 Enhance the understanding of the stakeholders on their role and responsibility through Farmers Dialogue (FD) process.</p> <p>1-2 Identify core set of cultivation techniques that should be introduced in order to increase production in the target area.</p> <p>1-3 Facilitate/conduct socialization activities for increasing a yield and market-oriented farming through FD process, workshop and follow up meeting among farmers and stakeholders.</p> <p>1-4 Facilitate coordination of water distribution and multi cropping with proper tractor utilization under collaboration among farmers and stakeholders in order to promote effective utilization of rice field.</p> <p>1-5 Introduce core set of cultivation techniques identified in activity 1-2 based on each farmer's social and field circumstance in order to increase productivity.</p> <p>1-6 Revise core set of techniques identified in Activity 1-2 according to concerns and problems raised by farmers during the project.</p> <p>1-7 Support farmers to design plan of rice-centered farming based on their circumstances in order to promote sustainable rice-centered farming through activities 1 to 6.</p> <p>2 System of irrigation water management among farmers is improved.</p> <p>2-1 Enhance the understanding on the role and responsibility of the stakeholders through Farmers Dialogue process.</p> <p>2-2 Draft and revise the strategy of irrigation water management.</p> <p>2-3 Set-up the working structure (e.g. Task Group, WUA Regeneration Committee, etc.) for the project activities</p> <p>2-4 Support and facilitate discussion on the rules and regulations of farmers' groups in Buluto and Maliana 1 irrigation schemes among stakeholders. (e.g. existing WUA, Kabuwees, leaders of farmers' groups, Suco chiefs and sub-municipality administrators.)</p> <p>2-5 Support implementation of water management by farmers' groups based on the rules and regulations discussed by local stakeholders in Buluto and Maliana I.</p> <p>2-6 Support establishment of the system to continue water management by farmers' groups in Buluto and Maliana I.</p> <p>2-7 Share the results and lesson learned with local and central government for better management in next cultivation, and for better, functioning policy framework.</p> <p>3 System of domestic rice distribution/ sales is improved.</p> <p>3-1 Enhance the understanding of the stakeholders on their role and responsibility through Farmers Dialogue process.</p> <p>3-2 Make implementation plan(s) to improve post-harvest and processing, distribution, and sales/consumption of domestic rice through Farmers' Association(s) and private sector.</p> <p>3-3 Introduce the implementation plan(s) to farmers, Farmers' Association, Private Sector and all stakeholders through report distribution, workshops, and Farmers' Dialogue.</p> <p>3-4 Conduct direct OJT (On The Job Training) to farmers' association (s) and private sector(s) in order to improve paddy purchasing, paddy drying, milling, packing, distribution, and sales of domestic rice.</p> <p>3-5 Conduct direct OJT (On The Job Training) to Farmers' Association (s) in order to strengthen financial administration and organizational management.</p> <p>3-6 Conduct cooking OJT (On the Job Training) to rice processing business persons in order to develop rice-processed goods.</p> <p>3-7 Create markets to increase the consumption of domestic rice through the viewpoints of quality, variety and producing area.</p> <p>4 Domestic rice purchasing / distribution system by the government is improved.</p> <p>4-1 Enhance the understanding of the stakeholders on their role and responsibility through Farmers' Dialogue process.</p> <p>4-2 Assist to elaborate the purchasing and distribution plan for domestic rice.</p> <p>4-3 Assist to introduce the appropriate payment system among NLC, Private bank and Farmers.</p> <p>4-4 Assist to formulate the Standard Operating Procedure (SOP) of purchasing paddy and strengthen ability of NLC officers to carry out the SOP through OJT.</p> <p>4-5 Support planning of appropriate rice purchasing/ distribution system in Malina and Buluto.</p> <p>4-6 Support implementation of purchasing operation of rice in Maliana and Buluto.</p> <p>4-7 Support distribution operation of rice, in collaboration with Ministry of Education and Ministry of Social Solidarity based on the plan prepared in Activity 4-2 & 4-5.</p> <p>4-8 Rehabilitate rice stockpiling warehouses in Dili and Maliana.</p> <p>4-9 Warehouse management is carried out based on 5S[6] by NLC in collaboration with other Development Partners and private companies.</p> <p>5 The lessons learned from the Project are shared with stakeholders in other municipalities under the initiative of MAF.</p> <p>5-1 Conduct workshops among government officials and trainings for farmers to disseminate experience and lessons learned from the project activities to stakeholders in other areas under the initiative of MAF.</p> <p>6 Necessary options for formulating domestic rice promotion policies are prepared and shared by the stakeholders.</p> <p>6-1 Support examination on possible policies for increase of domestic rice production through policy dialogue.</p> <p>6-2 Support preparation of a roadmap for the policy that have been chosen through the process of Activity 6-1.</p>	<p>1. Dispatch of Japanese experts in specific fields.</p> <p>- Chief Advisor</p> <p>- Agricultural Distribution and Sales</p> <p>- Project Coordinator</p> <p>- Stockpiling Rice Warehouse 5S Management</p> <p>- Irrigation Management / Water Management Groups</p> <p>- Rice Cultivation Techniques (Detailed position of each long-term & short-term expert will be decided during the base line survey)</p> <p>2. Trainings in Japan and/or in other countries.</p> <p>3. Provision of equipment and materials as necessary for the project implementation.</p> <p>4. Budget for the operational costs for the project implementation.</p>	<p>1. Allocation of counterpart personnel from MAF and MCI (Co-Chairpersons, Project Director, Project Managers, Project Sub-Managers), municipality level contact points and other government officials.</p> <p>2. Provision of space and building for the project offices.</p> <p>3. Budget for operational cost for the project implementation (local costs, electricity, water, internet access and travel allowances for Timorese counterparts, etc.).</p> <p>4. Supply or replacement of equipment and any other materials other than the equipment provided by JICA.</p> <p>(5. Appointment of a full-time coordinator from the Timorese side.)</p>	<p>Proper allocation of budgets to the implementing agencies.</p>

[1] Collaborative approach requires all stakeholders to understand their appropriate roles and responsibilities and to work together.

[2] Growing area in Maliana 1 site has already exceeded 1050 ha as of 2019, and there is no room for expansion.

[3] In this PDM, "government" shall mean the NLC.

[4] Payment is made on time as stated in the contract.

[5] The five modern irrigation schemes are Larisula, Caraulun, Oebaba, Bebuy and Tono.

[6] As a concrete 5S, especially in 1). first in first out, 2). regular cleaning, 3). check for protection of small animals such as birds and rats and 4). checking rice bags for tears and damage, are to be implemented.

Appendix 3: Dispatch of Experts

As of September 2023

Name	Field	Arrival date – Departure date (Including travel dates)								
		2016	2017	2018	2019	2020	2021	2022	2023	
Long-Term										
1	Mr. NIWA Noriaki	Chief Advisor	2016/9/12			2019/9/10				
2	Mr. HIRONAKA Shinji	Agricultural Distribution and Sales	2016/9/12			2019/11/10				
3	Mr. HAMAGUCHI Toshinori	Project Coordinator	2016/9/12		2018/9/11					
4	Mr. ODASHIMA Nariyoshi	Rice Cultivation Techniques		2017/1/9		2019/9/10				
5	Ms. NAGAI Naoko	Project Coordinator / Training and Extension			2018/8/31					Project Coordinator Present
6	Mr. OSUGA Kimio	Chief Advisor				2019/9/25		2021/9/10		
7	Mr. OKUYAMA Hitoshi	Agricultural Distribution and Sales				2019/9/25	Output 3		2022/1/31	
8	Mr. IINO Tokutaro	Cultivation Techniques / Community Development				2019/10/1				Output 1&2 Present
9	Mr. TOKUNAGA Seiro	Rice Purchasing and Distribution					2020/3/8	Output 4		2023/3/7
10	Mr. TAIRA Kazufumi	Participatory Irrigation Management						2021/5/19	Output 2	2023/5/18
11	Mr. KAMIDOHZONO Akira	Chief Advisor						2021/9/3		Chief Advisor Present
12	Mr. MIYAZOE Mikio	Agricultural Distribution and Sales							2022/5/7	Output 3&4 Present
Mid-Term Review										
Short-Term										
1	Mr. ODASHIMA Nariyoshi	Rice Cultivation Techniques	2016/10/3-10/28			2019/11/3-11/15				
2	Ms. MISHIMA Azusa	Rice Farming Survey	2016/10/10-11/6	2017/2/20-3/12 2017/3/24-4/5 2017/10/6-10/25 2017/11/24-12/7						
3	Ms. HONDA Yoshiko	Survey on Rice Distribution and Sales	2016/10/10-11/6							
4	Mr. NEGISHI Masaya	Irrigation Management	2016/12/5-12/23			2019/6/9-6/29 2019/11/24-12/14		2020/2/18-3/11		
5	Mr. ANDO Takamasa	Organization of WUA		2017/3/17-5/3						
6	Ms. KAKUTA Ieko	Operational Guidance			2018/2/10-2/21	2019/2/16-3/7				
7	Mr. HOMMA Toru	Private Sector Development			2018/5/15-5/27					
8	Mr. NAGAOKA Hirokazu	Rice Stockpile Management (SS/KAIZEN)			2018/10/12-11/2	2019/2/1-2/24		2020/1/14-3/13		
9	Ms. SHIBA Ayari	Rice Processing Product Development				2019/1/25-3/24				
10	Mr. HAGITA Satoshi	Rice Processing Product Development				2019/2/9-2/17				
11	Mr. OSUGA Kimio	Advisory mission				2019/8/19-8/27				
12	Mr. KANAMOTO Masakazu	Advisory mission						2020/1/15-1/28		
13	Mr. HATSUKADE Tsumio	Rice Processing Product Development						2020/2/15-3/20	2021/11/15-12/13	
14	Mr. SAKAKI Michihiko	Strengthening the organization of Water Users' Association (WUA)						2021/4/20-7/21 2021/10/21-12/13	2022/1/27-2/22	
15	Mr. NISHINO Shunichiro	Rice Quality Control						2021/8/3-10/21 2021/11/6-12/13	2022/9/16-10/23	
16	Mr. OKUWA Kunita	Irrigation Water Management						2022/1/27-3/18 2022/7/6-9/1	2022/8/15-9/16	
17	Mr. FUKUDA Yasushi	Facility Repair by Farmers Participation								

Appendix 4: Training

As of September 2023

No	Name	Period of Participation	Field/Name of the Course	Implementing Institution	Current Position,
Counterparts' Participation in Training Overseas (Japan)					
1	Fernando Egidio Amaral	2018/10/21 ~ 2018/10/26	Establishment and Management of Farmers' Market	JA Okinawa, etc	Director of Agro-commerce, MAF
2	Malianatalice Ximenes	2018/10/21 ~ 2018/10/26	Establishment and Management of Farmers' Market	JA Okinawa, etc	Chief Department of Market Information, Department of Agro-commerce, MAF
3	Manuel Maria dos Sentos	2018/10/21 ~ 2018/10/26	Establishment and Management of Farmers' Market	JA Okinawa, etc	Technical Staff, Department of Agro-commerce, MAF
4	Aniceto dos Reis	2020/01/19 ~ 2020/02/15	Strengthening Safety Management System of Agricultural Products	JICA	Technical Assistant, Department of Agro-commerce, MAF
Counterparts and Project National Staffs' Participation in JICA ONLINE Training					
1	Sergio Miguel Luis Freitas	2021/05/17 ~ 2021/05/28	Participatory Irrigation Management System for Paddies	JICA	Vice President of Buluto Water Users Association (WUA)
2	Nelio Boavida Lay	2021/05/17 ~ 2021/05/28	Participatory Irrigation Management System for Paddies	JICA	Project National Staff
3	Malianatalice Ximenes	2021/08/24 ~ 2021/09/22	Promotion of Food Value Chain for Community-Based Agri-Business	JICA	Chief Department of Market Information, Department of Agro-commerce, MAF
4	Albino Ribeiro	2021/08/24 ~ 2021/09/22	Promotion of Food Value Chain for Community-Based Agri-Business	JICA	Chief Department of Promotion Agriculture Product, Department of Agro-commerce, MAF
5	Henrique J. A. Gonçalves	2021/09/13 ~ 2021/10/29	Establishment and Development of Farmers' Organizations	JICA	-, 2023/7/17
6	Rui Amaral Pereira	2022/01/11 ~ 2022/01/31	Integrated Agriculture and Rural Development through the Participation of Local Farmers	JICA	Chief Department of Education and Training, Department of Extension, MAF
7	Abel Ximenes	2022/01/17 ~ 2022/01/28	Strengthening Safety Management System of Agricultural Products	JICA	Manager of Plant Quarantine Laboratory, Department of Plant Quarantine, MAF
8	Lilina Amena Lopes	2022/02/14 ~ 2022/02/25	Pembangunan Pedesaan (Rural Development)	JICA	Staff of Department of Extension, MAF
9	Laurentino Ximenes	2022/02/14 ~ 2022/02/25	Pembangunan Pedesaan (Rural Development)	JICA	Staff of Department of Agriculture and Horticulture, MAF
10	Malianatalice Ximenes	2022/02/14 ~ 2022/02/25	Pembangunan Pedesaan (Rural Development)	JICA	Chief Department of Market Information, Department of Agro-commerce, MAF
11	Jacinto Doutel Ximenes	2022/02/14 ~ 2022/02/25	Pembangunan Pedesaan (Rural Development)	JICA	Irrigation Officer, MAF Manatuto
12	Abel Soares de Carvalho	2022/02/14 ~ 2022/02/25	Pembangunan Pedesaan (Rural Development)	JICA	Irrigation Officer, MAF Baucau
13	Alberto Quintão de Oliveira	2022/02/14 ~ 2022/02/25	Pembangunan Pedesaan (Rural Development)	JICA	Project National Staff
14	Lucio da Costa	2022/02/14 ~ 2022/02/25	Pembangunan Pedesaan (Rural Development)	JICA	Project National Staff
15	Celestino Rangel	2022/02/14 ~ 2022/02/25	Pembangunan Pedesaan (Rural Development)	JICA	Project National Staff

Appendix 5: Implementation of Seminars and Training

As of September 2023 (after the Mid-term Review of 2019)

No	Year	Name of the Course	Date		No. of Participants	Target Participants	Remarks	Output
			From	To				
1	2019	Training and resetting for cash register in the Farmers Market	24 Oct.	26 Oct.	11	Manager and staffs of the Farmers Market		3
2	2020 *rainy season	Farmers Field School (FFS) for Rice Cultivation	20 Nov. 2019	26 Mar. 2020	316	FFS participating farmers and MAF Extension Officers	4 sites, 16 workshops	1
3	2020	Food Value Chain Training	24 Jan.	24 Jan.	23	NLC staffs, MAF staff, and Project National Staffs		4
4	2020	5S/KAIZEN Training	27 Feb.	28 Feb.	40	NLC staffs and Project National Staffs		4
5	2020 *dry season	Farmers Field School (FFS) for Rice Cultivation	30 May. 2020	22 Oct. 2020	312	FFS participating farmers and MAF Extension Officers	3 sites, 15 workshops	1
6	2021 *rainy season	Farmers Field School (FFS) for Rice Cultivation	7 Jan. 2021	3 Jun. 2021	485	FFS participating farmers and MAF Extension Officers	8 sites, 27 workshops	1
7	2021 *dry season	Farmers Field School (FFS) for Rice Cultivation	21 Jun. 2021	28 Sep. 2021	337	FFS participating farmers and MAF Extension Officers	6 sites, 23 workshops	1
8	2021	Training on software of cash register in the Farmers Market	Jul.	Aug.	5	Manager and staffs of the Farmers Market	2 times per week for 2 months	3
9	2021	Rice quality analysis training	17 Aug.	19 Aug.	6	MAF Agro-commerce staffs		3
10	2021	Rice quality analysis training	25 Aug.	26 Aug.	14	NLC Dili staffs		4
11	2021	Rice quality analysis training	14 Sep.	16 Sep.	10	NLC Maliana staffs, CAAKUB, ACELDA		4
12	2021	Extra-Training on software of cash register in the Farmers Market	Sep.	Dec.	5	Manager and staffs of the Farmers Market	1 time per week for 4 months	3
13	2021	Workshop for Water Users' Association (WUA) Regeneration Committee (WRC) by Task Group	15 Nov.	19 Nov.	14	WRC members and GateKeepers	Buluto site	2
14	2021	Workshop for Water Users' Association (WUA) Regeneration Committee (WRC) by Task Group	30 Nov.	3 Dec.	13	WRC members and GateKeepers	Maliana site	2
15	2022 *rainy season	Farmers Field School (FFS) for Rice Cultivation	28 Dec. 2021	23 May. 2022	1,059	FFS participating farmers and MAF Extension Officers	12 sites, 71 workshops	1
16	2022	Basic training for WUA and Kabu-wee	19 Jan.	12 Jan.	16	WUA members and Kabu-wee	Buluto site	2
17	2022	OJT for Treasury of WUA	15 Feb.	15 Feb.	2	WUA members	Buluto site	2
18	2022	Workshop for Kabu-wee	26 May.	26 May.	9	Kabu-wee	Buluto site	2
19	2022 *dry season	Farmers Field School (FFS) for Rice Cultivation	31 May. 2022	23 Nov. 2022	723	FFS participating farmers and MAF Extension Officers	8 sites, 45 workshops	1
20	2022	OJT for WUA	3 Aug.	4 Aug.	5	WUA members	Maliana site	2
21	2022	OJT for Treasury of WUA	12 Oct.	12 Oct.	5	WUA members	Buluto site	2
22	2022	Seminar on draft of proposed rice quality standard	14 Oct.	14 Oct.	app. 20	MAF staffs, NLC staffs, Bobonaro Municipality, local authority, CAAKUB, and rice related stakeholders in Maliana		4
23	2022	OJT for budget utilization plan setting	19 Oct.	19 Oct.	4	WUA members	Buluto site	2
24	2022	OJT for Treasury of WUA	20 Oct.	20 Oct.	2	WUA members	Maliana site	2
25	2022	Seminar on draft of proposed rice quality standard	21 Oct.	21 Oct.	app. 20	MAF staffs, NLC staffs, WFP, University, and rice related stakeholders in Dili		4
26	2022	First information seminar on the Maliana Rice Commission (MRC)	21 Dec.	21 Dec.	app. 20	MAF Bobonaro, Bobonaro Municipality, local farmers, rice millers, brokers, and other stakeholders in Maliana		3
27	2022	OJT for budget utilization plan setting	8 Nov.	8 Nov.	2	WUA members	Maliana site	2
28	2023 *rainy season	Farmers Field School (FFS) for Rice Cultivation	27 Dec. 2022	25 May. 2023	1,029	FFS participating farmers and MAF Extension Officers	11 sites, 64 workshops	1
29	2023	Oath taking ceremony for the members of the Maliana Rice Commission (MRC)	30 Jan.	30 Jan.	app. 30	MAF Bobonaro, Bobonaro Municipality, local farmers, rice millers, brokers, and other stakeholders in Maliana		3
30	2023	Joint-OJT for GK in Buluto	27 Feb.	2 Mar.	8	WUA members and GateKeepers	inviting Maliana's Irrigation Officer and GateKeepers to Buluto	2
31	2023	Workshop for Participatory Irrigation Management (PIM)	25 Apr.	27 Apr.	12	MAF National irrigation Department, MAF Municipal Directors, Municipal Irrigation Officers	inviting 5 Municipalities (Lauten, Viqueque, Manufahi, Covalima, Oecusse)	2
32	2023	Progress report of Maliana Rice Commission (MRC)	6 Jul.	6 Jul.	app. 35	MAF Bobonaro, Bobonaro Municipality, local farmers, rice millers, brokers, and other stakeholders in Maliana		3
33	2023	OJT for rice quality control	13 Jul.	13 Jul.	15	NLC Dili staffs, NLC Tibar staffs and NLC Oecusse staffs		4

34	2023	OJT for rice quality control	20 Jul.	20 Jul.	18	NLC Maliana staffs, MAF Extension, MAF Agro-commerce, Maliana Rice Comission, WFP, and rice related stakeholders in Maliana	4
35	2023	OJT for rice quality control	27 Jul.	27 Jul.	11	NLC Natarbora staffsand NLC Baucau staffs	4

Appendix 6: Provision of Equipment and Materials

As of September 2023

No	Name of Machinery	Arrival Date	Product Number	Maker	Price (USD)	Unit	Installation Place	Condition
1	Land Cruiser	2017/1/30	Prado	Toyota	65,000	1	MAF National	Good
2	Land Cruiser	2017/3/2	Prado	Toyota	65,000	2	MAF National	Good
3	Land Cruiser	2017/10/13	Prado	Toyota	65,000	1	MAF National	Good
4	Motor-bike	2017/4/3	Verza	Honda	1,625	9	MAF Bobonaro (Project Container)	Good
5	Motor-bike	2017/4/3	Mio M3	Yamaha	1,425	1	MAF Bobonaro (Project Container)	Good
6	Motor-bike	2017/5/2	Verza	Honda	1,625	4	Project Office in Buluto (MAF Manatuto)	Good
7	Motor-bike	2017/5/2	Verza	Honda	1,625	4	Project Office in Buluto (MAF Baucau)	Good
8	Motor-bike	2017/5/2	Mio M3	Yamaha	1,425	1	Project Office in Buluto (MAF Manatuto)	Good
9	Motor-bike	2017/5/2	Mio M3	Yamaha	1,425	1	Project Office in Buluto (MAF Baucau)	Good
10	Threshing Machine	2018/3/7	TPA-1000MG	Agrindo	1,675	4	Farmers Association in Laleia (MAF Manatuto)	Broken
11	Threshing Machine	2018/3/7	TPA-1000MG	Agrindo	1,675	4	Farmers Association in Laleia (MAF Baucau)	Broken (Currently Out of Service)
12	Powder Machine	2019/3/18	GRD 1500	Maksindo	1,800	1	CAAKUB (MAF, Agro-commerce Department)	Not Repairable (Currently Out of Service)
13	Vehicle	2019/3/26	Gran Max	Daihatsu	17,000	1	Farmers Market (MAF, Agro-commerce Department)	Good
14	Powder Machine	2020/1/8	GRD 1500	Maksindo	1,800	1	CAAKUB (MAF, Agro-commerce Department)	Good
15	Motor-bike	2022/2/21	MX King 150	Yamaha	1,875	1	MAF Baucau (Irrigation Department)	Good
16	Motor-bike	2022/2/21	MX King 150	Yamaha	1,875	1	MAF Manatuto (Irrigation Department)	Good
17	Motor-bike	2022/2/21	MX King 150	Yamaha	1,875	3	MAF Bobonaro (Irrigation Department)	Good
18	Laptop	2022/2/22	14-dq2078wm	HP	1,330	2	MAF Bobonaro (Agro-commerce Department)	Good
19	Laser Printer	2022/2/22	MFP 135a	HP	235	1	MAF Bobonaro (Agro-commerce Department)	Good

Appendix 7: Budget for the Operational Costs (Japanese side)

1) Covered by Japan

Content	JFY2016	JFY2017	JFY2018	JFY 2019	JFY 2020	JFY 2021	JFY 2022	JFY 2023*	Total
	Sep.2016-Mar.2017	Apr 2017-Mar.2018	Apr.2018-Dec.2018	Apr. 2019-Mar.2020	Apr. 2020-Mar. 2021	Apr. 2021-Mar. 2022	Apr. 2022-Mar. 2023	Apr. 2023-Jul. 2023	
Total (\$) (1)+(2)	-	-	-	605,414	604,291	663,531	496,552	154,387	2,524,176
JICA Rate (annual average)	-	-	-	109.13	105.76	111.92	134.79	137.66	-
Total (Yen)	13,556,847	49,502,355	35,290,010	66,069,057	63,906,894	74,263,531	66,928,028	21,252,285	292,419,795
(1) Procured / Paid by JICA TL Office (\$)				93,268	48,000	30,000	-	-	171,268
- NLC Warehouse Rehabilitation Consultant	-	-	-	73,268	-	-	-	-	73,268
- Project Vehicle (Truck)	-	-	-	-	28,000	-	-	-	28,000
- Social Security for Project Staff, Flights for Short-term Experts, etc (rough amount)	-	-	-	20,000	20,000	30,000	-	-	70,000
(2) Procured / Paid by Project (\$)				512,147	556,291	633,531	496,552	154,387	2,352,909
- Administration & Management ¹⁾	-	-	-	378,968	319,627	416,329	414,059	137,769	1,666,753
- Farmers Dialogue	-	-	-	706	-	-	-	-	706
- Output 1	-	-	-	46,605	59,524	105,816	51,693	8,866	272,505
- Output 2	-	-	-	3,702	283	18,592	14,962	4,618	42,157
- Output 3	-	-	-	1,682	138,993	79,462	6,717	2,565	229,418
- Loja ²⁾	-	-	-	69,579	34,380	7,535	-	-	111,494
- Output 4	-	-	-	2,307	3,485	5,797	5,228	568	17,385
- Output 5	-	-	-	8,597	-	-	3,894	-	12,490
- Output 6	-	-	-	-	-	-	-	-	-

1) Project Staffs' Salary, Trip Allowance, Gasoline, Security, Tele-Communication, JCC Meeting, etc.)

2) Farmer's Market in Timor-Plaza and Time Square (Hatuhada)

Cost for FFS (PAD practice, Transplanting) (\$/0.5ha) in Output 1

Item	Unit Price (\$)	Recommended Amount	Necessary Amount (\$)	Remarks
NPK (50kg)	\$65.00	2	\$130.00	
Urea (50kg)	\$65.00	1	\$65.00	
Seeds (Nakroma)	\$1.50	25	\$37.50	
Push Weeder	\$45.00	0.5	\$22.50	share with 2 farmers
Line Maker	\$25.00	0.2	\$5.00	share with 5 farmers, mainly only in Buluto
Regent (250 ml)	\$10.00	0.11	\$1.00	
BASSA (400 ml)	\$8.00	0.5	\$4.00	
Besvidor (100 g) (Insecticide)	\$6.00	0.5	\$3.00	
TOTAL (\$)	-	-	\$268.00	

Project National Staff

No	Name	Position	Main Areas	Assigned Period
1	Mr. Nelio Boavida Lay	Project Officer	Output 1 (Rice Cultivation) in Maliana	2017/2~Present
2	Mr. Alberto Quintão de Oliveira	Project Officer	Output 1 (Rice Cultivation) in Buluto	2016/10~Present
3	Mr. Fernando Fontes da Cruz	Project Officer	Output 2 (Irrigation Management) in Maliana	2017/4~Present
4	Mr. Celestino Rangel	Project Officer	Output 2 (Irrigation Management) in Buluto & Administration / Finance	2017/2~Present
5	Ms. Elvira Pereira Bano	Project Officer	Output 4 (Purchasing / Distribution by the Government) & Output 3 (Distribution / Sales by Private Sector)	2017/2~Present
6	Mr. Lucio da Costa	Project Officer	Output 3 (Distribution / Sales by Private Sector) & Output 4 (Purchasing / Distribution by the Government) & Output 5 (Sharing) & Output 6 (Task Force / Policy)	2016/10~Present
7	Mr. Elvis Marques	Field Staff	Output 1 (Rice Cultivation) in Maliana	2019/7~Present
8	Mr. Mateus Barros	Field Staff	Output 1 (Rice Cultivation) in Maliana	2021/5~Present
9	Mr. Pedro Da Silva	Field Staff	Output 1 (Rice Cultivation) in Buluto	2019/8~Present
10	Mr. Benigno Aquino F. Soares	Driver	Driver	2023/1~Present
11	Mr. Assis F. Alves	Driver	Driver	2017/10~Present
12	Mr. Paulino Soares	Driver	Driver	2019/10~Present
13	Mr. Patricio da Costa	Driver	Driver	2017/3~Present

Appendix 8: Allocation of Counterpart Personnel

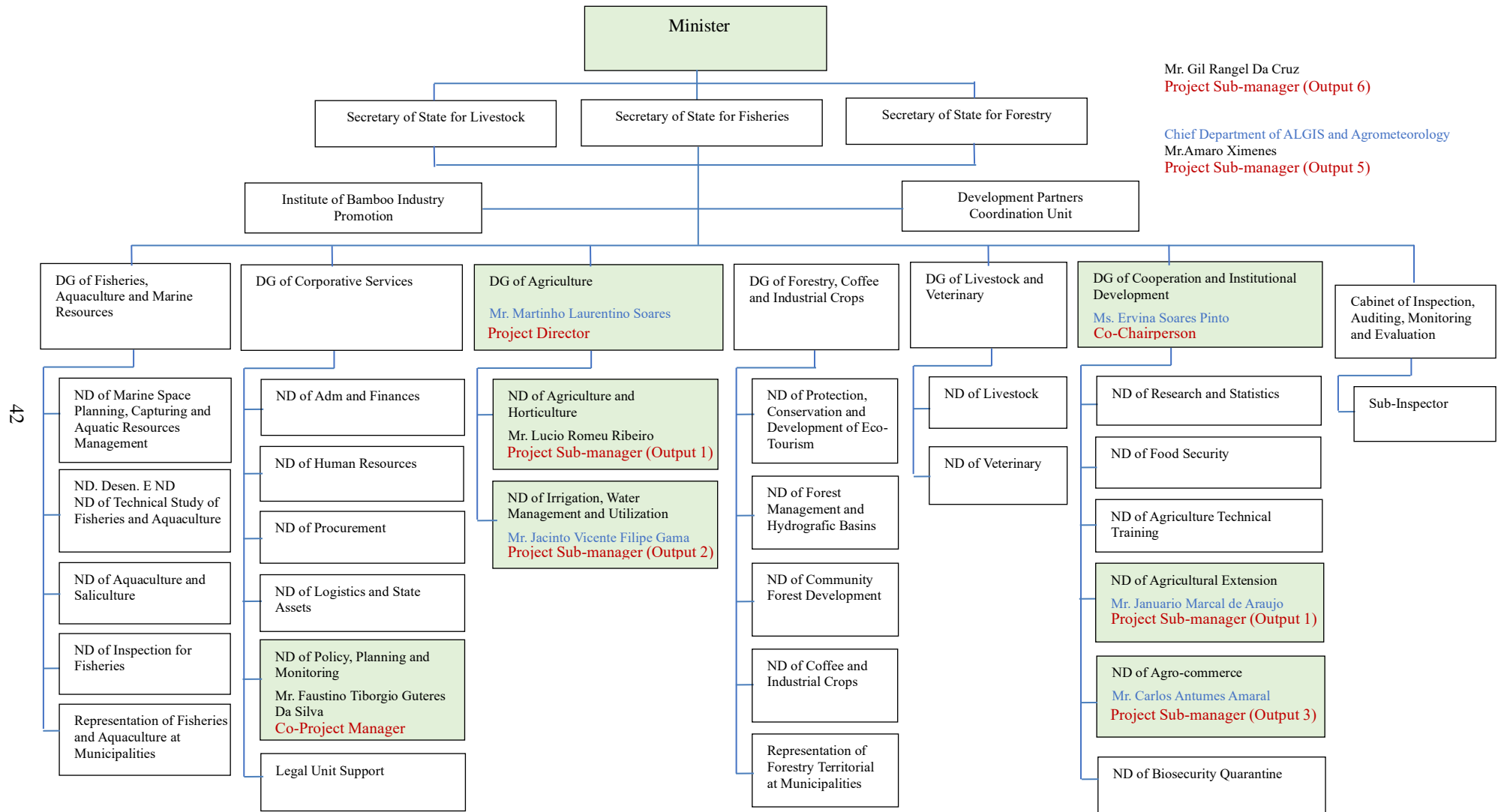
As of September 2023

No.	Institution	Name	Position	Assigned Period	Name of Expert in Charge	Involvement in project
JCC Member						
1	MALFF	Ms. Ervina Soares Pinto	Director General for Cooperation and Institutional Development	2023/9-Present	Mr. Kamidohzono	Co-Chairperson
2	NLC	Mr. Gervasio Cardoso de Jesus da Silva	President of the Administration Council	-Present	Mr. Kamidohzono	Co-Chairperson
3	MALFF	Mr. Martinho Laurentino Soares	Director General for Agriculture	2023/9-Present	Mr. Kamidohzono	Project Director
4	MALFF	Mr. Faustino Tiborgio Guterres Da Silva	Director of Policy, Planning, and Monitoring	2016/9-Present	Mr. Kamidohzono	Co-Project Manager
5	NLC	Mr. Jacinto Paijo	Executive Director	2016/9-Present	Mr. Kamidohzono	Co-Project Manager
6	MALFF	Mr. Lucio Romeu Ribeiro	National Director of Agriculture and Horticulture	2021/1-Present	Mr. Iino	Project Sub-manager (Output 1)
7	MALFF	Mr. Januario Marcal de Araujo	National Director of Agriculture and Extension	2023/9-Present	Mr. Iino	Project Sub-manager (Output 1)
8	MALFF	Mr. Jacinto Vicente Filipe Gama	National Director of Irrigation and Management of Water Utilization	2023/9-Present	(Mr. Taira), Mr. Iino	Project Sub-manager (Output 2)
9	MALFF	Mr. Carlos Antunes Amaral	National Director of Agro-Commerce	2023/9-Present	Mr. Miyazoe	Project Sub-manager (Output 3)
10	NLC	Mr. Jose Fernando H.S.dos Santos	National Director of Procurement, Warehouses and Stocks	-Present	(Mr. Tokunaga), Mr. Miyazoe	Project Sub-manager (Output 4)
11	MALFF	Mr. Amaro Ximenes	Chief Department of ALGIS and Agrometeorology	-Present	Ms. Nagai	Project Sub-manager (Output 5)
12	MALFF	Mr. Gil Rangel Da Cruz	Senior Professional	2022/12-Present	(Mr. Tokunaga), Mr. Kamidohzono	Project Sub-manager (Output 6)
13	Bobonaro Municipality	Mr. Ernesto de Oliveirs Barreto	President	-Present	All project experts	JCC member
14	Baucau Municipality	Mr. Olivio Bou Lesa Freitas	President	-Present	All project experts	JCC member
15	Manatuto Municipality	Mr. Bernado Lopes	President	-Present	All project experts	JCC member
Non-JCC Member						
16	Bobonaro Municipality	Mr. Alberto Gomes Lopes	Director of MALFF Bobonaro	-Present	All project experts	Counterpart
17	Baucau Municipality	Mr. Moises Lobato Pereira	Director of MALFF Baucau	-Present	All project experts	Counterpart
18	Manatuto Municipality	Mr. Thomas Francisco Piedade Ximenes	Director of MALFF Manatuto	2016/9-Present	All project experts	Counterpart
19	Bobonaro Municipality	Mr. Tomas Laca-loe	Sub-district Administrator in Maliana, Bobonaro	-Present	All project experts	Counterpart
20	Baucau Municipality	Mr. Pedro da Costa Freitas	Sub-district Administrator in Vemasse, Baucau	-Present	All project experts	Counterpart
21	Manatuto Municipality	Mr. Cosme Ximenes	Sub-district Administrator in Laleia, Manatuto	-Present	All project experts	Counterpart
22	MAF	Mr. Francis F. Gama	Staff of Department of Agriculture and Extension	2018/2-Present	Mr. Iino	Counterpart (Output 1)
23	Bobonaro Municipality	Mr. Joaquim Serguira	Chief Department of Extension Department	-Present	Mr. Iino	Counterpart (Output 1)
24	Bobonaro Municipality	Mr. Kazamiro Lopes	Coordinator of Extension	-Present	Mr. Iino	Counterpart (Output 1)
25	Bobonaro Municipality	Mr. Domingos do Cermo	Extension Officer	-Present	Mr. Iino	Counterpart (Output 1)
26	Bobonaro Municipality	Mr. Francisco Caf	Extension Officer	-Present	Mr. Iino	Counterpart (Output 1)
27	Bobonaro Municipality	Mr. Alcino Leto Mau	Extension Officer	-Present	Mr. Iino	Counterpart (Output 1)
28	Bobonaro Municipality	Mr. Januario dos Santos	Extension Officer	-Present	Mr. Iino	Counterpart (Output 1)
29	Bobonaro Municipality	Mr. Jeronimo Pedro	Extension Officer	-Present	Mr. Iino	Counterpart (Output 1)
30	Bobonaro Municipality	Mr. Edgar Jose Santos Ramos	Extension Officer	-Present	Mr. Iino	Counterpart (Output 1)
31	Baucau Municipality	Mr. Bonifasio da Costa Freitas	Extension Officer	-Present	Mr. Iino	Counterpart (Output 1)
32	Baucau Municipality	Mr. Nazario da L. Freitas	Extension Officer	-Present	Mr. Iino	Counterpart (Output 1)
33	Baucau Municipality	Mr. Americo S. da Costa	Extension Officer	-Present	Mr. Iino	Counterpart (Output 1)
34	Manatuto Municipality	Mr. Joao Domingos da Costa	Extension Officer	-Present	Mr. Iino	Counterpart (Output 1)
35	Manatuto Municipality	Mr. Antonio de Sousa Correia	Extension Officer	-Present	Mr. Iino	Counterpart (Output 1)
36	Bobonaro Municipality	Mr. Celestino Henriques	Irrigation Officer	-Present	Mr. Iino	Counterpart (Output 2)
37	Baucau Municipality	Mr. Martinho Ximenes	Irrigation Officer	-Present	Mr. Iino	Counterpart (Output 2)
38	Manatuto Municipality	Mr. F. Antonio de Carvalho	Irrigation Officer	-Present	Mr. Iino	Counterpart (Output 2)
39	Bobonaro Municipality	Mr. Rui Lasi	Staff of Department of Agro-commerce	-Present	Mr. Miyazoe	Counterpart (Output 3)
40	Bobonaro Municipality	Mr. Joel Afonso	Staff of Department of Agro-commerce	-Present	Mr. Miyazoe	Counterpart (Output 3)
41	NLC	Mr. Vasco Cabecas de Araujo	Chief of Staff	-Present	Mr. Miyazoe	Counterpart (Output 4)
42	NLC	Mr. Tito da Costa	National Director of Transportation and Logistic	-Present	Mr. Miyazoe	Counterpart (Output 4)
43	NLC	Ms. Florbela Monica de Araujo	National Director of Finance	-Present	Mr. Miyazoe	Counterpart (Output 4)

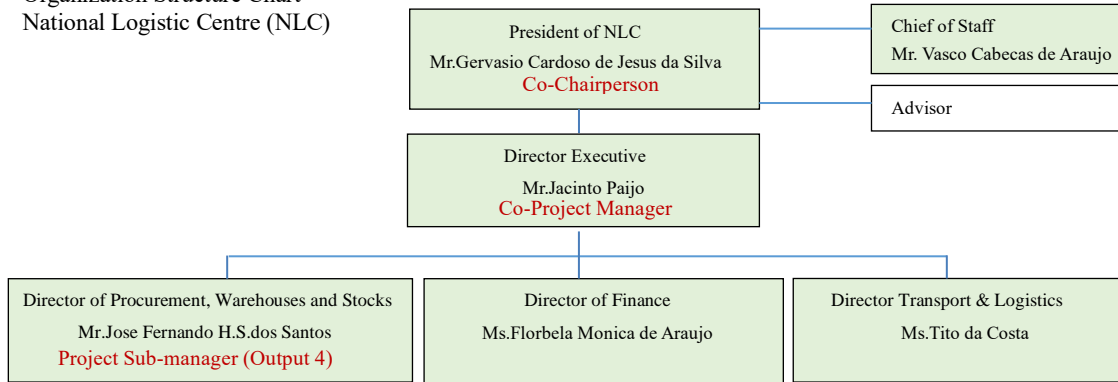
Note) Interviewees during the terminal evaluation survey were highlighted.

Appendix 9
Organization Structure Chart
Ministry of Agriculture, Livestock, Fisheries and Forestry (MALFF)

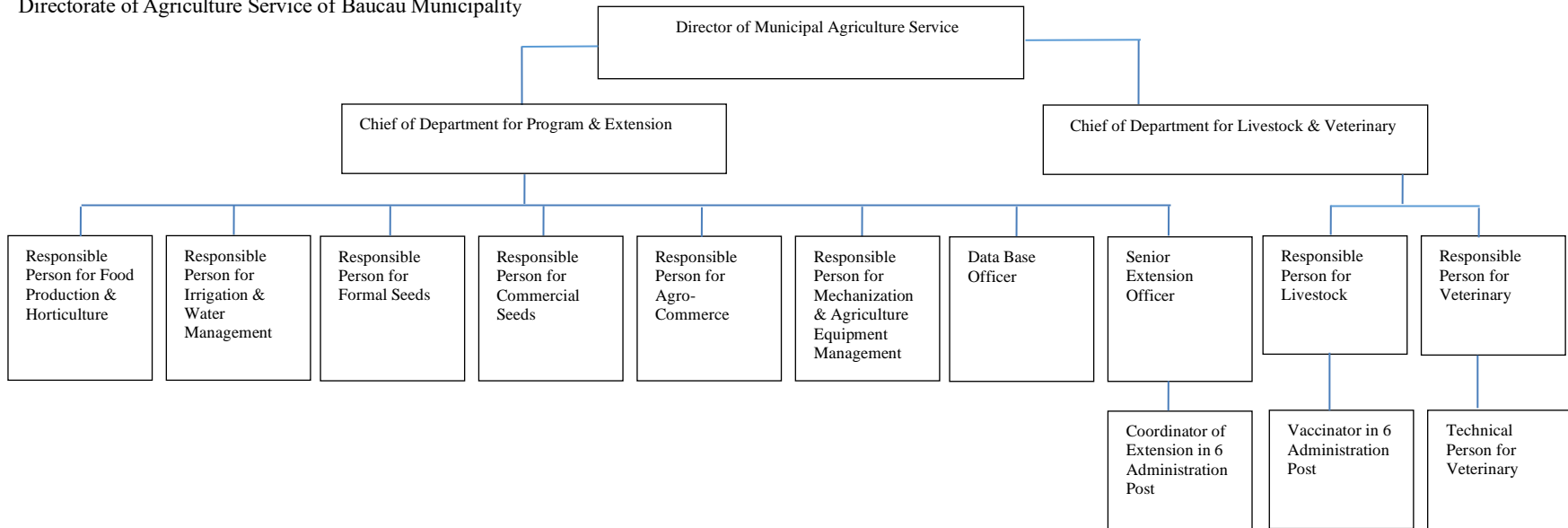
As of September,2023



Organization Structure Chart
National Logistic Centre (NLC)



Organization Structure Chart
Directorate of Agriculture Service of Baucau Municipality



Appendix 10: Budget for the Operational Costs (Timorese side)

2) Covered by Timor-Leste

(Currency: USD)

No	Items	JFY2016 (From Sep.2016)	JFY2017	JFY2018	JFY 2019	JFY 2020	JFY 2021	JFY 2022	JFY 2023 (Till Jun2023)	Total
1	Electricity for the Project Office in MAF	240	840	840	840	840	840	840	200	5,480
2	Electricity for the Project Office in Maliana	-	360	360	360	360	360	360	150	2,310
3	Electricity for the Project Office in Bluto	0	0	0	0	0	0	0	0	0
Total		240	1,200	1,200	1,200	1,200	1,200	1,200	350	7,790

Note) \$40/month for electricity for the Temporary Project Office in Jurisdiction Dept. and behind the Minister's Office.
 \$70/month for electricity for the current Project Office in the MAF.
 \$30/month for electricity for the Project Office in Maliana.
 Electricity for the Project Office in Bluto is paid by the Japanese side.

Local Operation Expenses Covered by Partner Country: Project Activities

Content	Cost (\$)
Paddy Seed (Nakroma)	Exact cost unknown
Fertilizer (organic)	Exact cost unknown
Pesticide	Exact cost unknown
Fuel for Tractor	Exact cost unknown
Tractor	Exact cost unknown
Combine Harvester	Exact cost unknown
Threshing Machine	Exact cost unknown
Milling Machine	Exact cost unknown
Grease for Irrigation Facilities (MAF Baucau)	Exact cost unknown
Inauguration Ceremony for NLC Warehouse Rehabilitation	Exact cost unknown

Appendix 11 Achievement of Indicator

Narrative Summary		Indicators	Data currently available/needed	Evaluation																																																																																																																																	
Super Goal	Livelihood of farmers living in Timor-Leste is improved through increase in income by improved rice value-chain.	<ul style="list-style-type: none"> - The TL government is strengthened to share The project outcomes in The project sites with stakeholders over The country. - The production of domestic rice in Timor-Leste is stable or increases for five years after The achievement of The Overall Goal of The Project. 	-																																																																																																																																		
Overall Goal	The improved rice value chains are sustained in Buluto and Maliana I with the initiative of the Government of Timor-Leste.	<ol style="list-style-type: none"> 1) The production in Buluto and Maliana I is maintained or increased compared to the end of the project. 2) The Buluto and Maliana I irrigation facilities are maintained by the WUA (with the support of MAF). 3) The amount of domestic rice sold in Buluto and Maliana I is maintained or increased compared to XX (to be determined at the Terminal Evaluation of the project). 	<ul style="list-style-type: none"> • With the current government policy, the production in Buluto and Maliana is expected to be maintained or increased. MAF conducts an annual national survey of rice production (cultivated area, yield, production amount) by Municipality. This will be used as a means of verifying the indicator. • At present, works of “the Program for Urgent Rehabilitation of Flood Damaged Infrastructure” are underway at both irrigation schemes. Once the repairs are completed, these two irrigation facilities will be able to fully function. There are high expectations for the rehabilitations not only from MALFF but also from local administration, and it is expected that continued monitoring by WUA and support by local and central government are expected. • "year XX" needs to be determined in this terminal evaluation (the reason it was not included at the time of the advisory mission in 2022 was because the impact of SESTA BASICA was too significant). 	Possibly will be achieved																																																																																																																																	
Project Purpose	Farmers households' income from rice production in the project sites is increased through the improvement of rice value-chain (Production, Harvesting, Post-harvest and Processing, Distribution, and Sales/Consumption) achieved by collaborative approach.	More than USD 600,000 of income is generated by sales of rice by farmers in Buluto and Maliana I per year. (equivalent to 1,500 tons of paddy sales at USD 0.40/kg).	<ul style="list-style-type: none"> • In 2022, farmers in project sites sold to private sector 892t of paddy, out of which 805t was actually purchased by the government (MTCI and SECOOP) for CESTA BASICA. Farmers also sold 552t to NLC. Accordingly, total 1,357t of paddy sales was made. • In 2023 so far, 1,257.2t of paddy sales was made: 255.1t to private sector and 1,002t to NCL as the table below. <p>Paddy Purchase Results in Buluto and Maliana I</p> <table border="1"> <thead> <tr> <th>Year</th> <th>2017</th> <th>2018</th> <th>2019</th> <th>2020</th> <th>2021</th> <th>2022</th> <th>2023 (as of 7/31)</th> </tr> </thead> <tbody> <tr> <td>CAAKUB</td> <td>39.6t</td> <td>87.7t</td> <td>93.4t</td> <td>59.3t</td> <td>91.9t</td> <td>46.1t</td> <td>64.3t</td> </tr> <tr> <td> Buluto</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td></td> </tr> <tr> <td> Maliana I</td> <td>39.6t</td> <td>87.7t</td> <td>93.4t</td> <td>59.3t</td> <td>91.9t</td> <td></td> <td></td> </tr> <tr> <td>ACELDA</td> <td>46.9t</td> <td>253.7t</td> <td>113.5t</td> <td>105.7t</td> <td>137.9t</td> <td>64.3t</td> <td>30.0t</td> </tr> <tr> <td> Buluto</td> <td>46.9t</td> <td>53.7t</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Maliana I</td> <td>0</td> <td>200t</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td colspan="5">No data</td> <td>805.0t*</td> <td>160.8t</td> </tr> <tr> <td> Buluto</td> <td colspan="5"></td> <td>58t</td> <td>72.1t</td> </tr> <tr> <td> Maliana I</td> <td colspan="5"></td> <td>747t</td> <td>88.7t</td> </tr> <tr> <td>Private Sector TOTAL</td> <td>86.5t</td> <td>341.4t</td> <td>206.9t</td> <td>165.9t</td> <td>229.8t</td> <td>915.4t</td> <td>255.1t</td> </tr> <tr> <td>NLC (Food Security)</td> <td>0</td> <td>0</td> <td>342t</td> <td>42t</td> <td>466t</td> <td>552t (Paddy)</td> <td>1,002.1t</td> </tr> <tr> <td> Buluto</td> <td></td> <td></td> <td>0</td> <td>6t</td> <td>0</td> <td>223t</td> <td>40.1t</td> </tr> <tr> <td> Maliana I</td> <td></td> <td></td> <td>342t</td> <td>36t</td> <td>466t</td> <td>329t</td> <td>962.0t</td> </tr> <tr> <td>TOTAL</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>1,467.4t</td> <td>1,257.2t</td> </tr> </tbody> </table> <p>*) In 2022, 805.0t was sold to 20 private companies for CESTA BASICA (Food Basket Program launched in October 2020 and implemented by MTCI and SECOOP). In 2023, CESTA BASICA was implemented.</p> <table border="1"> <thead> <tr> <th>Product</th> <th>Field Price</th> <th>NLC's Warehouse Price</th> </tr> </thead> <tbody> <tr> <td>Paddy Rice</td> <td>\$0.40</td> <td>\$0.52</td> </tr> <tr> <td>Maize</td> <td>\$0.40</td> <td>\$0.50</td> </tr> </tbody> </table>	Year	2017	2018	2019	2020	2021	2022	2023 (as of 7/31)	CAAKUB	39.6t	87.7t	93.4t	59.3t	91.9t	46.1t	64.3t	Buluto	0	0	0	0	0			Maliana I	39.6t	87.7t	93.4t	59.3t	91.9t			ACELDA	46.9t	253.7t	113.5t	105.7t	137.9t	64.3t	30.0t	Buluto	46.9t	53.7t						Maliana I	0	200t						Other	No data					805.0t*	160.8t	Buluto						58t	72.1t	Maliana I						747t	88.7t	Private Sector TOTAL	86.5t	341.4t	206.9t	165.9t	229.8t	915.4t	255.1t	NLC (Food Security)	0	0	342t	42t	466t	552t (Paddy)	1,002.1t	Buluto			0	6t	0	223t	40.1t	Maliana I			342t	36t	466t	329t	962.0t	TOTAL	-	-	-	-	-	1,467.4t	1,257.2t	Product	Field Price	NLC's Warehouse Price	Paddy Rice	\$0.40	\$0.52	Maize	\$0.40	\$0.50	Almost Achieved
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Output1-	1. System of rice farming is improved.	<p>1.1 Yield at demonstration plots achieves 6 ton/ha at the rainy season in 2023.</p> <p>Rainy season is usually from November to June. Dry season is usually from July to October.</p>	<p>Source) NLC Presentation on</p> <ul style="list-style-type: none"> The Ministry of Agriculture's Good Agriculture Practice (GAP) manual is used for guidance. The extension method is FFS. In order to achieve the indicated yield of 5t/ha in the GAP manual, the Project selected cultivation techniques focusing on securing the appropriate number of panicles (approximately 300/m²) for the local variety (IR strain). The Project has provided FFS and technical guidance on techniques: 1) nursery preparation, 2) basal fertilization, 3) line transplanting, 4) weeding, 5) top dressing fertilization, 6) pest & disease control, 7) community seed production, and 8) timely harvesting. All these processes are following the already established rice technical package of the GAP. Target yield for Model farmer (MF)'s demonstration was 6.0 ton/ha with intensive support by extension workers and project staff. In 2023 rainy season, the average yield of 10 demonstration plots (Model Farmers) is 6.18t/ha. <p>Yield at demonstration plot (Model Farmers' sites) in 2023 rainy season</p> <table border="1"> <thead> <tr> <th>Irrigation Scheme</th> <th>Location of Model Farmer (MF) Demonstration Plot</th> <th>Yield (kg/ha)</th> </tr> </thead> <tbody> <tr> <td>Buluto</td> <td>Laleia Bibiten OT 5/6</td> <td>6,488</td> </tr> <tr> <td>Buluto</td> <td>Vemasse Siu Le'en OT 9</td> <td>6,206</td> </tr> <tr> <td>Buluto</td> <td>Vemasse Weten OT 12</td> <td>5,678</td> </tr> <tr> <td>Buluto</td> <td>Vemasse Welaban OT 13</td> <td>7,097</td> </tr> <tr> <td>Buluto</td> <td>Vemasse Eraruin OT 16</td> <td>6,642</td> </tr> <tr> <td colspan="2">Buluto Average</td> <td>6,422</td> </tr> <tr> <td>Maliana1</td> <td>Raebou Orok</td> <td>7,532</td> </tr> <tr> <td>Maliana1</td> <td>Aikiar</td> <td>5,355</td> </tr> <tr> <td>Maliana1</td> <td>Ramaskora</td> <td>5,452</td> </tr> <tr> <td>Maliana1</td> <td>Diruaben</td> <td>5,503</td> </tr> <tr> <td>Maliana1</td> <td>Direct Seeding</td> <td>5,888</td> </tr> <tr> <td colspan="2">Maliana 1 Average</td> <td>5,946</td> </tr> <tr> <td colspan="2">Average all the 10 demonstrations</td> <td>6,184</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Since the 2020 rainy season when FFS was initiated in the Project, though villages (demonstration plots) where FFS were implemented have changed, the yields have been high and stable. <p>Average yield of demonstration plots (Model Farmers' sites) (transplanting)</p> <table border="1"> <thead> <tr> <th>Season</th> <th>Buluto (t/ha)</th> <th>Maliana 1 (t/ha)</th> </tr> </thead> <tbody> <tr> <td>2019 rainy season</td> <td>2.5 (average of all farmers)</td> <td>2.9 (average of all farmers)</td> </tr> <tr> <td>2019 dry season</td> <td>-</td> <td>-</td> </tr> <tr> <td>2020 rainy season</td> <td>6.9 (2 sites)</td> <td>4.8 (2 sites)</td> </tr> <tr> <td>2020 dry season</td> <td>4.7 (1 site)</td> <td>5.2 (1 site)</td> </tr> <tr> <td>2021 rainy season</td> <td>5.3 (4 sites)</td> <td>5.8 (4 sites)</td> </tr> <tr> <td>2021 dry season</td> <td>7.1 (2 sites)</td> <td>5.2 (4 sites)</td> </tr> <tr> <td>2022 rainy season</td> <td>7.2 (6 sites)</td> <td>6.0 (5 sites)</td> </tr> <tr> <td>2022 dry season</td> <td>6.2 (3 sites)</td> <td>5.4 (3 sites)</td> </tr> <tr> <td>2023 rainy season</td> <td>6.4 (5 sites)</td> <td>5.9 (5 sites)</td> </tr> </tbody> </table> <p>Note) Table from 11th Monitoring sheets</p>	Irrigation Scheme	Location of Model Farmer (MF) Demonstration Plot	Yield (kg/ha)	Buluto	Laleia Bibiten OT 5/6	6,488	Buluto	Vemasse Siu Le'en OT 9	6,206	Buluto	Vemasse Weten OT 12	5,678	Buluto	Vemasse Welaban OT 13	7,097	Buluto	Vemasse Eraruin OT 16	6,642	Buluto Average		6,422	Maliana1	Raebou Orok	7,532	Maliana1	Aikiar	5,355	Maliana1	Ramaskora	5,452	Maliana1	Diruaben	5,503	Maliana1	Direct Seeding	5,888	Maliana 1 Average		5,946	Average all the 10 demonstrations		6,184	Season	Buluto (t/ha)	Maliana 1 (t/ha)	2019 rainy season	2.5 (average of all farmers)	2.9 (average of all farmers)	2019 dry season	-	-	2020 rainy season	6.9 (2 sites)	4.8 (2 sites)	2020 dry season	4.7 (1 site)	5.2 (1 site)	2021 rainy season	5.3 (4 sites)	5.8 (4 sites)	2021 dry season	7.1 (2 sites)	5.2 (4 sites)	2022 rainy season	7.2 (6 sites)	6.0 (5 sites)	2022 dry season	6.2 (3 sites)	5.4 (3 sites)	2023 rainy season	6.4 (5 sites)	5.9 (5 sites)	Achieved
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Malianal	Maliana Ramaskora	20	4,277																																																																																																																													
Malianal	Maliana Diruaben	20	4,869																																																																																																																													
Malianal	Maliana Direct seeding	20	5,055																																																																																																																													
Average of Maliana 100 farmers			4,810																																																																																																																													
Year	Buluto (t/ha)	Maliana 1 (t/ha)																																																																																																																														
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2019 dry season	-	-																																																																																																																														
2020 rainy season	4.5 (31 LF)	4.1 (39 LF)																																																																																																																														
2020 dry season	4.7 (19 LF)	4.3 (9 LF)																																																																																																																														
2021 rainy season	4.5 (74 LF)	5.6 (79 LF)																																																																																																																														
2021 dry season	4.2 (23 LF)	4.2 (60 LF)																																																																																																																														
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	<p>1.3 Cultivation area in Buluto increases to 600 ha at the rainy season in 2023 from 426ha in 2019.</p>	<p>Farmer registration list is currently been updated by the Project.</p> <p>In 2021, the cultivation area was 629ha. In 2023, the area is expected to be higher than that of 2021.</p> <p>The farmer register list survey conducted in 2021 by Output 2 team estimated the cultivation area in Buluto to be 629 ha.</p> <table border="1"> <thead> <tr><th>Year</th><th>Cultivation area</th></tr> </thead> <tbody> <tr><td>2018</td><td>Rainy season 531.6 ha, Dry season 0.5 ha</td></tr> <tr><td>2019</td><td>Rainy season 426.4 ha (4th farmer dialogue survey), Dry season 10.5 ha</td></tr> <tr><td>2020</td><td>Rainy season 770 ha, Dry season 33 ha</td></tr> <tr><td>2021</td><td>Rainy season 629 ha (Farmer Register List survey was conducted by Output 2)</td></tr> <tr><td>2022</td><td>-</td></tr> <tr><td>2023</td><td>Rainy season 619ha (survey by the Project and Farmer Register List)</td></tr> </tbody> </table> <p>Note) In the dry season, the Laleia River runs dry and water uptake is insufficient, limiting the area planted.</p> <p>Breakdown of the cultivated area in rainy season, Buluto</p> <table border="1"> <thead> <tr><th rowspan="2">Year</th><th colspan="2">Laleia Subdistrict, Manatuto Municipality</th><th colspan="2">Vemase Subdistrict, Baucau Municipality</th><th colspan="2">Buluto Total</th></tr> <tr><th># of cultivators</th><th>cultivated area</th><th># of cultivators</th><th>cultivated area</th><th># of cultivators</th><th>cultivated area</th></tr> </thead> <tbody> <tr><td>2019</td><td>214</td><td>162 ha</td><td>258</td><td>264 ha</td><td>472</td><td>426ha</td></tr> <tr><td>2020</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>2021</td><td>226</td><td>174 ha</td><td>496</td><td>455 ha</td><td>722</td><td>629 ha¹⁾</td></tr> <tr><td>2022</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>2023</td><td>-</td><td>209ha</td><td>-</td><td>410ha</td><td>-</td><td>619ha²⁾</td></tr> </tbody> </table> <p>1) COVID-19 stalled imports. Food rationing increased the demand for domestic rice, driving farmers to cultivate the crop. 2) Total land area is 798ha, so the land-use ratio is 77.6% (=619ha/798ha) Q</p>	Year	Cultivation area	2018	Rainy season 531.6 ha, Dry season 0.5 ha	2019	Rainy season 426.4 ha (4th farmer dialogue survey), Dry season 10.5 ha	2020	Rainy season 770 ha, Dry season 33 ha	2021	Rainy season 629 ha (Farmer Register List survey was conducted by Output 2)	2022	-	2023	Rainy season 619ha (survey by the Project and Farmer Register List)	Year	Laleia Subdistrict, Manatuto Municipality		Vemase Subdistrict, Baucau Municipality		Buluto Total		# of cultivators	cultivated area	# of cultivators	cultivated area	# of cultivators	cultivated area	2019	214	162 ha	258	264 ha	472	426ha	2020	-	-	-	-	-	-	2021	226	174 ha	496	455 ha	722	629 ha ¹⁾	2022	-	-	-	-	-	-	2023	-	209ha	-	410ha	-	619ha ²⁾	<p>Farmer registration list is currently been updated by the Project.</p> <p>In 2021, the cultivation area was 629ha. 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		<p>collected only from landowners, which increased the collection rate in 2023. Tenant farmers leave paddy field at the end of rainy season and go back to mountains, which make it difficult to collect water fee.</p> <p>3) With project support, Kabwee (water manager per canal since the time of traditional irrigation) are responsible for the collection. WUA cooperate with the authorities (subdistrict administrator and village chief) to work for collecting water fee.</p> <ul style="list-style-type: none"> Mariana 1, the collection rate in 2023 is 28%. Water fee is \$5.50/ha. There are some challenges and difficulties, including 1) good rainfall in 2023, 2) confused demarcation of role, 3) no punishment against those who didn't pay, 4) lack of trust to former WUA, 5) performance of Chief of Canal, 6) lack of transport for WUA, etc. Recommendation for improving future collection activities is currently discussed. <p>Maliana 1:</p> <table border="1" data-bbox="801 363 1805 523"> <thead> <tr> <th>Year</th> <th>Total amount of fee collected</th> <th>Number of paid farmers</th> <th>Total number of farmers</th> <th>Collection rate (%)</th> </tr> </thead> <tbody> <tr> <td>2019</td> <td>\$350</td> <td>50</td> <td>-</td> <td>-</td> </tr> <tr> <td>2020</td> <td>No delivery record</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>2021</td> <td>None at this time</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>2022</td> <td>\$2,302</td> <td>547</td> <td>1,327</td> <td>41.2% (in %)</td> </tr> <tr> <td>2023 (as of 11 Aug)</td> <td>\$1,622.50</td> <td>374</td> <td>1,335 (provisional)</td> <td>28.0% (provisional)</td> </tr> </tbody> </table> <p>Note) Data of previous seasons are from the 9th -11th Monitoring Sheets.</p>	Year	Total amount of fee collected	Number of paid farmers	Total number of farmers	Collection rate (%)	2019	\$350	50	-	-	2020	No delivery record	-	-	-	2021	None at this time	-	-	-	2022	\$2,302	547	1,327	41.2% (in %)	2023 (as of 11 Aug)	\$1,622.50	374	1,335 (provisional)	28.0% (provisional)	<p>Canal cleaning activity was implemented before 2023 rainy season rice cultivation started in both Buluto and Maliana 1.</p> <p>2023 rainy season</p> <table border="1" data-bbox="801 608 1805 699"> <thead> <tr> <th rowspan="2">Name of Scheme</th> <th rowspan="2">Target facility</th> <th rowspan="2">Activity period</th> <th rowspan="2">Actual working days</th> <th colspan="2">Number of farmers attended</th> </tr> <tr> <th>Total</th> <th>Daily average</th> </tr> </thead> <tbody> <tr> <td>Buluto</td> <td>main canal</td> <td>11/14/2022-12/6/2022</td> <td>12 days</td> <td>918</td> <td>77</td> </tr> <tr> <td>Maliana 1</td> <td>main canal</td> <td>11/16-11/18/2022</td> <td>3 days</td> <td>204</td> <td>68</td> </tr> </tbody> </table> <p>2022 rainy season</p> <table border="1" data-bbox="801 722 1335 791"> <thead> <tr> <th>Name of scheme</th> <th>Target facility</th> <th>Number of farmers attended</th> </tr> </thead> <tbody> <tr> <td>Buluto</td> <td>10 sub-canals</td> <td>169</td> </tr> <tr> <td>Maliana 1</td> <td>main canal</td> <td>121</td> </tr> </tbody> </table> <p>(Supplemental) This activity is conducted by all the WUA members through the WUA secretariat and irrigation staff of MAF municipality office before the rainy season starts. At Burto and Mariana 1, the schedule is decided so as not to conflict with local ritual events.</p> <ul style="list-style-type: none"> The MAF municipality office is responsible for O&M of irrigation facilities (headworks, main canals, etc.) and staff gatekeepers are available on a daily basis. WUA staff and affiliated farmers are responsible for cleaning (sediment removal, weeding, etc.) and minor repairs. In addition to canal cleaning, achievements of activities are: <ol style="list-style-type: none"> Gatekeepers' O&M activities based on the Irrigation Management Manual (timely operation of headworks gates, daily inspection of irrigation facilities, maintenance of gate such as lubricating oil application, etc.) Implementation of entries in various record books, etc. WUA, village, municipality, and national government (with support of the project) shared the cost (labor), procured materials and implemented repair work in Maliana 1. This can be a good example of farmer-participatory irrigation management. 	Name of Scheme	Target facility	Activity period	Actual working days	Number of farmers attended		Total	Daily average	Buluto	main canal	11/14/2022-12/6/2022	12 days	918	77	Maliana 1	main canal	11/16-11/18/2022	3 days	204	68	Name of scheme	Target facility	Number of farmers attended	Buluto	10 sub-canals	169	Maliana 1	main canal	121	Achieved
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3. System of domestic rice distribution/ sales is improved.	3.1 A total of more than 500 tons of paddy is sold by farmers in Buluto and Maliana I to private sectors such as CAAKUB and ACELDA per year.		<ul style="list-style-type: none"> As of July 31, 2023, the total amount of paddy sold to private sector is 255.1t. It is unclear whether the Cesta Basica Program, which started in October 2020, will be implemented in 2023. The indicator is not likely to be achieved in 2023. Before 2021, the indicator was "A total more than 500t of paddy is sold by farmers in the whole country per year through private sector", then the indicator was revised in 2022, confining farmers only in Buluto and Maliana. In 2022 as well as 2023, there are cases in which farmers sell to buyers whose affiliations are unknown and there are no records such as receipts, which makes it difficult to track the total amount of paddy sold to private sector. <p>Amount of paddy sold by farmers to private sectors in Buluto and Maliana ^{*)}</p> <table border="1" data-bbox="801 1201 1917 1321"> <thead> <tr> <th></th> <th>2017</th> <th>2018</th> <th>2019</th> <th>2020</th> <th>2021</th> <th>2022</th> <th>2023¹⁾</th> </tr> </thead> <tbody> <tr> <td>CAAKUB (Farmer Association)</td> <td>39.6t</td> <td>87.7t</td> <td>93.4t</td> <td>59.3t</td> <td>91.9t</td> <td>46.1t</td> <td>64.3t</td> </tr> <tr> <td>ACELDA (Private company)</td> <td>46.9t</td> <td>253.7t</td> <td>122.5t</td> <td>287.8t</td> <td>163.1t</td> <td>64.3t</td> <td>30.0t</td> </tr> <tr> <td>Others</td> <td>-</td> <td>-</td> <td>105.0t</td> <td>468.9t²⁾</td> <td>55.8t²⁾</td> <td>805.0t³⁾</td> <td>160.8t</td> </tr> <tr> <td>Total</td> <td>86.5t</td> <td>341.4t</td> <td>320.9t</td> <td>816.0t</td> <td>310.8t</td> <td>915.4t</td> <td>255.1t</td> </tr> </tbody> </table> <p>1) Data is based on the records from January to July only. 2) For 2020 and 2021, the amounts were obtained by Loja Dos Agricultures supplying rice to UNDP's emergency relief program and to MTCI/SECOOP's food basket program (Sesta Basica) for COVID-19 relief program. 3) 805t was sold to private companies through Cesta Basica Program *) Before 2021 the amount in the table above is the paddy sold by farmers in whole country. After 2022, the amount in the table above is the paddy sold by farmers only in Buluto and Maliana 1. This change is due to the revision of PDM indicator 3.1. PDM indicator 3.1 target area has been changed 3 times. The target area in PDM before November 2020 was Buluto and Maliana.</p>		2017	2018	2019	2020	2021	2022	2023 ¹⁾	CAAKUB (Farmer Association)	39.6t	87.7t	93.4t	59.3t	91.9t	46.1t	64.3t	ACELDA (Private company)	46.9t	253.7t	122.5t	287.8t	163.1t	64.3t	30.0t	Others	-	-	105.0t	468.9t ²⁾	55.8t ²⁾	805.0t ³⁾	160.8t	Total	86.5t	341.4t	320.9t	816.0t	310.8t	915.4t	255.1t	Not achieved																			
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	3.2 Marketing channel for domestic rice is expanded to private sectors such as restaurants, hotels, and farmers' market.	<ul style="list-style-type: none"> • CAAKUB, ACELDA and other private companies sold rice to at least 27 private companies (23 in Maliana 1 and 4 in Buluto) in 2022 and 24 companies in 2023, respectively, including hotel, restaurant, café and supermarket (including Loja). As such, private sector sales channels for domestic rice have expanded. <table border="1" data-bbox="808 217 1807 355"> <thead> <tr> <th></th> <th>2018</th> <th>2019</th> <th>2020</th> <th>2021</th> <th>2022</th> <th>2023</th> </tr> </thead> <tbody> <tr> <td>Hotel</td> <td>2</td> <td>6</td> <td>-</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Restaurant</td> <td>13</td> <td>5</td> <td>-</td> <td>7</td> <td>10</td> <td>8</td> </tr> <tr> <td>Cafe</td> <td>-</td> <td>2</td> <td>-</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>Supermarket (including Loja)</td> <td>3</td> <td>5</td> <td>5</td> <td>10</td> <td>16</td> <td>15</td> </tr> <tr> <td>Total Channel</td> <td>18</td> <td>18</td> <td>5</td> <td>18</td> <td>27</td> <td>24</td> </tr> </tbody> </table> <p data-bbox="808 379 1039 400">Amount Rice Sold in Loja (kg)</p> <table border="1" data-bbox="808 400 1919 580"> <thead> <tr> <th rowspan="2">Variety</th> <th colspan="4">Loja 1 Timor-Plaza</th> <th colspan="4">Loja 2 Fatu-hada</th> </tr> <tr> <th>2020</th> <th>2021</th> <th>2022</th> <th>2023*</th> <th>2020</th> <th>2021</th> <th>2022</th> <th>2023*</th> </tr> </thead> <tbody> <tr> <td>White Rice</td> <td>10,124.0</td> <td>3,777.5</td> <td>1,652.0</td> <td>2,251.0</td> <td>25,609.0</td> <td>6,939.0</td> <td>7,192.0</td> <td>3,407.0</td> </tr> <tr> <td>White Rice (Membramo)*</td> <td>580.0</td> <td>1,520.0</td> <td>680.0</td> <td>0.0</td> <td>410.0</td> <td>4,650.0</td> <td>2,039.0</td> <td>230.0</td> </tr> <tr> <td>Red Rice</td> <td>9,174.0</td> <td>9,852.5</td> <td>7,851.5</td> <td>5,940.5</td> <td>3,916.0</td> <td>9,890.0</td> <td>17,943.5</td> <td>10,767.0</td> </tr> <tr> <td>Black Rice</td> <td>4,055.0</td> <td>7,418.9</td> <td>4,459.5</td> <td>2,840.5</td> <td>1,412.5</td> <td>9,132.0</td> <td>7,028.0</td> <td>2,178.0</td> </tr> <tr> <td>Total Amount Sold per Year (kg)</td> <td>23,933.0</td> <td>22,568.9</td> <td>14,643.0</td> <td>11,032.0</td> <td>31,347.5</td> <td>30,611.0</td> <td>34,202.5</td> <td>16,582.0</td> </tr> </tbody> </table> <p data-bbox="808 584 1106 604">*) 2023 data is based on January to July.</p> <p data-bbox="808 608 1391 628">*) 2) White Rice (Membramo) is a distinctive variety, which came from Oecussi</p>		2018	2019	2020	2021	2022	2023	Hotel	2	6	-	0	0	0	Restaurant	13	5	-	7	10	8	Cafe	-	2	-	1	1	1	Supermarket (including Loja)	3	5	5	10	16	15	Total Channel	18	18	5	18	27	24	Variety	Loja 1 Timor-Plaza				Loja 2 Fatu-hada				2020	2021	2022	2023*	2020	2021	2022	2023*	White Rice	10,124.0	3,777.5	1,652.0	2,251.0	25,609.0	6,939.0	7,192.0	3,407.0	White Rice (Membramo)*	580.0	1,520.0	680.0	0.0	410.0	4,650.0	2,039.0	230.0	Red Rice	9,174.0	9,852.5	7,851.5	5,940.5	3,916.0	9,890.0	17,943.5	10,767.0	Black Rice	4,055.0	7,418.9	4,459.5	2,840.5	1,412.5	9,132.0	7,028.0	2,178.0	Total Amount Sold per Year (kg)	23,933.0	22,568.9	14,643.0	11,032.0	31,347.5	30,611.0	34,202.5	16,582.0	Achieved		
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	4. System of domestic rice purchasing / distribution system by the government is improved.	<p data-bbox="524 628 757 715">4.1 Plan of government purchase and distribution of domestic rice is prepared annually.</p> <ul style="list-style-type: none"> • In 2023, NLC revealed that it would purchase 3,600 tons of paddy from throughout the country. • NLC is benefited from “the Rice Quality Control Manual”, “SOP for purchasing rice from NLC”, and “5S-Kaizen Training for NLC.” • Although NLC has revealed the amount it plans to purchase in recent years, it has been difficult to obtain information, perhaps for budgetary reasons. <p data-bbox="808 715 1245 735">Planned and actual purchases of NLC from project area (t)</p> <table border="1" data-bbox="808 735 1637 1123"> <thead> <tr> <th>Year</th> <th>Location of Purchase</th> <th>Plan (A)</th> <th>Result (B)</th> <th>(B) - (A)</th> </tr> </thead> <tbody> <tr> <td rowspan="3">2019</td> <td>Maliana</td> <td>Unknown</td> <td>342</td> <td>-</td> </tr> <tr> <td>Buluto</td> <td>Unknown</td> <td>0</td> <td>-</td> </tr> <tr> <td>Total</td> <td>Unknown</td> <td>342</td> <td>-</td> </tr> <tr> <td rowspan="3">2020</td> <td>Maliana</td> <td>650</td> <td>36</td> <td>▲614</td> </tr> <tr> <td>Buluto</td> <td>350</td> <td>6</td> <td>▲344</td> </tr> <tr> <td>Total</td> <td>1,000</td> <td>42</td> <td>▲958</td> </tr> <tr> <td rowspan="3">2021</td> <td>Maliana</td> <td>680</td> <td>466</td> <td>▲214</td> </tr> <tr> <td>Buluto</td> <td>250</td> <td>0</td> <td>▲250</td> </tr> <tr> <td>Total</td> <td>930</td> <td>466</td> <td>▲464</td> </tr> <tr> <td rowspan="4">2022¹⁾</td> <td>Maliana</td> <td>300 (milled rice base)</td> <td>329 (paddy)</td> <td></td> </tr> <tr> <td>Buluto</td> <td>175 (milled rice base)</td> <td>223 (paddy)</td> <td></td> </tr> <tr> <td>Total</td> <td>475 (milled rice base)</td> <td>552 (paddy)</td> <td></td> </tr> <tr> <td>whole country</td> <td>1,500 (milled rice base)</td> <td>1,500 (milled rice)</td> <td>±0</td> </tr> <tr> <td rowspan="3">2023</td> <td>Maliana</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Buluto</td> <td></td> <td></td> <td></td> </tr> <tr> <td>whole country</td> <td>3,600t</td> <td>2,519t²⁾</td> <td>▲1,081t</td> </tr> </tbody> </table> <p data-bbox="808 1126 1910 1169">1) In 2022, all rice purchase was switched from paddy to milled rice. This is because milling machines of NLC at the warehouses were out of order. Accordingly, “SOP for purchasing rice from NLC” was revised as “version 2”.</p> <p data-bbox="808 1173 1901 1193">2) 2,519t is from the NLC presentation below: 1,586.3t of paddy and 560t of milled rice, which is converted to 933t of paddy by 60% milling rate.</p> <p data-bbox="808 1214 1111 1235">Purchased quantity in 2023 as of August</p> <table border="1" data-bbox="808 1235 1675 1415"> <thead> <tr> <th>Product</th> <th>Budget(\$)</th> <th>Quantity(t)</th> <th># of companies</th> </tr> </thead> <tbody> <tr> <td>Paddy</td> <td>824,874</td> <td>1,586.30</td> <td>24</td> </tr> <tr> <td>Local Rice (milled)</td> <td>700,000</td> <td>560</td> <td>4</td> </tr> <tr> <td>Maize</td> <td>75,000</td> <td>150</td> <td>3</td> </tr> <tr> <td>Mungbean</td> <td>550,000</td> <td>295</td> <td>9</td> </tr> <tr> <td>Red Bean</td> <td>450,000</td> <td>180</td> <td>8</td> </tr> <tr> <td>Imported Rice</td> <td>2,950,500</td> <td>4,215</td> <td>4</td> </tr> <tr> <td>Total</td> <td>5,550,374</td> <td>2,771.30</td> <td>52</td> </tr> </tbody> </table> <p data-bbox="808 1418 1173 1439">Source) NLC Presentation on September 5, 2023.</p>	Year	Location of Purchase	Plan (A)	Result (B)	(B) - (A)	2019	Maliana	Unknown	342	-	Buluto	Unknown	0	-	Total	Unknown	342	-	2020	Maliana	650	36	▲614	Buluto	350	6	▲344	Total	1,000	42	▲958	2021	Maliana	680	466	▲214	Buluto	250	0	▲250	Total	930	466	▲464	2022 ¹⁾	Maliana	300 (milled rice base)	329 (paddy)		Buluto	175 (milled rice base)	223 (paddy)		Total	475 (milled rice base)	552 (paddy)		whole country	1,500 (milled rice base)	1,500 (milled rice)	±0	2023	Maliana				Buluto				whole country	3,600t	2,519t ²⁾	▲1,081t	Product	Budget(\$)	Quantity(t)	# of companies	Paddy	824,874	1,586.30	24	Local Rice (milled)	700,000	560	4	Maize	75,000	150	3	Mungbean	550,000	295	9	Red Bean	450,000	180	8	Imported Rice	2,950,500	4,215	4	Total	5,550,374	2,771.30	52	Achieved
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	4.2 Appropriate system of payment from NLC to	<ul style="list-style-type: none"> • NLC Maliana warehouse staff understands “SOP for purchasing rice from NLC” which explain the system from purchasing to payment. The Project 	Achieved																																																																																																										

	farmers and private companies is introduced so that the timing of payment meets farmers' needs.	<p>also briefed NLC Baucau and Natarbola warehouse managers on SOP on February 16, 2023.</p> <ul style="list-style-type: none"> In January and February 2023, NLC conducted Socialization Workshops (briefings for farmers) to explain purchasing procedures in Maliana and Buluto. The Project supported the workshops (e.g., reserving subdistrict government conference room, supplement the explanation of purchasing procedures, and assist farmers (groups) and private parties in preparing necessary documents.) Over the past two years, NLC's activity has increased remarkably. 	<p>In 2022, NLC signed rice purchase agreements with 14 private traders and purchased 1,500t of rice (milled rice) from all over the country as planned. From Buluto and Maliana, NLC purchased total 552t on paddy base (=331t on milled rice base).</p> <p>In 2023, NLC plans to purchase 3,600t of paddy from the whole country. As of August, NLC has purchased 1,586t of paddy and 560t of milled rice (=933t on paddy base) from the whole country, totaling 2,519t.</p> <table border="1" data-bbox="806 359 1691 450"> <thead> <tr> <th></th> <th>2019</th> <th>2020</th> <th>2021</th> <th>2022</th> <th>2023</th> </tr> </thead> <tbody> <tr> <td>Maliana 1</td> <td>342t</td> <td>36 t</td> <td>466t</td> <td>329t</td> <td>962 t²⁾</td> </tr> <tr> <td>Buluto</td> <td>0t</td> <td>6t</td> <td>0t</td> <td>223t</td> <td>40.1t</td> </tr> <tr> <td>Total</td> <td>342t</td> <td>42t¹⁾</td> <td>466t</td> <td>552t (paddy base)</td> <td>1,002.1t</td> </tr> </tbody> </table> <p>1) The low purchase volume in 2020 is due to COVID-19. 2) 447t of milled rice were already purchased, which can be converted to 745t of paddy by milling rate of 60%. Also, 217t of paddy was purchased.</p>		2019	2020	2021	2022	2023	Maliana 1	342t	36 t	466t	329t	962 t ²⁾	Buluto	0t	6t	0t	223t	40.1t	Total	342t	42t ¹⁾	466t	552t (paddy base)	1,002.1t	Achieved																																							
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	4.4 Stocktaking of NLC warehouse is conducted and reported quarterly to the project.	<ul style="list-style-type: none"> The Project conducted stocktaking and 5S/KAIZEN training for NLC executives (including Executive Director, Chief of Cabinet) from January to February 2023. Quarterly inventory data from January to March from NLC warehouses was reported. 	<table border="1" data-bbox="806 577 1921 805"> <thead> <tr> <th>Warehouse</th> <th>Tibar</th> <th>Maliana</th> <th>Baucau</th> <th>Natarbora /Manatuto</th> <th>Bebora/Dili (Imported Rice)</th> <th>Maubesi</th> </tr> </thead> <tbody> <tr> <td>Number of warehouse</td> <td>3</td> <td>1</td> <td>2</td> <td>1</td> <td>3</td> <td>1</td> </tr> <tr> <td>Capacity</td> <td>27,000</td> <td>500</td> <td>6,000</td> <td>5,000</td> <td>15,000</td> <td>5,000</td> </tr> <tr> <td>Milled rice (t)</td> <td>1,072</td> <td>95</td> <td>428</td> <td>0</td> <td>1,376</td> <td>-</td> </tr> <tr> <td>Milled rice released (t)</td> <td>195</td> <td>0</td> <td>0</td> <td>0</td> <td>1,250</td> <td>-</td> </tr> <tr> <td>Remaining milled rice (t)</td> <td>877</td> <td>95</td> <td>428</td> <td>0</td> <td>126</td> <td>-</td> </tr> <tr> <td>Paddy (t)</td> <td>253</td> <td>466</td> <td>0</td> <td>163</td> <td>0</td> <td>-</td> </tr> <tr> <td>Paddy released (t)</td> <td>147</td> <td>466*</td> <td>0</td> <td>0</td> <td>0</td> <td>-</td> </tr> <tr> <td>Remaining Paddy (t)</td> <td>106</td> <td>0</td> <td>0</td> <td>163</td> <td>0</td> <td>-</td> </tr> </tbody> </table> <p>*) Released Paddy of 466t from Maliana warehouse were milled by the outsourced private company, then transferred to NLC Tibar warehouse.</p>	Warehouse	Tibar	Maliana	Baucau	Natarbora /Manatuto	Bebora/Dili (Imported Rice)	Maubesi	Number of warehouse	3	1	2	1	3	1	Capacity	27,000	500	6,000	5,000	15,000	5,000	Milled rice (t)	1,072	95	428	0	1,376	-	Milled rice released (t)	195	0	0	0	1,250	-	Remaining milled rice (t)	877	95	428	0	126	-	Paddy (t)	253	466	0	163	0	-	Paddy released (t)	147	466*	0	0	0	-	Remaining Paddy (t)	106	0	0	163	0	-	Achieved
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Paddy (t)	253	466	0	163	0	-																																																													
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5. The lessons learned from the Project are shared with stakeholders in other municipalities under the initiative of MAF.	5.1 Workshops on the project activities are held for stakeholders in five modern irrigation schemes to share Collaborative Approach under the initiative of MAF.	<ul style="list-style-type: none"> The five modern irrigation facilities are Larisula, Caraulun, Oebaba, Bebui and Tono. Out of the five, Bebui IS in Viqueque Municipality and Larisula IS in Baucau Municipality were surveyed to identify issues. Meetings and seminars were also held to share project activities related to dry and rainy season cultivation, operation and maintenance of irrigation facilities, and rice quality guidelines. <p>W/S to local stakeholders outside of the project site</p> <table border="1" data-bbox="806 957 1921 1337"> <thead> <tr> <th>Date</th> <th>Participants</th> <th>Activity</th> </tr> </thead> <tbody> <tr> <td>October 2019</td> <td>A total of 19 people from Larisula and Bebui IS, including Director or MAF municipality office, Sub-district Administrator, village chief, extension workers, and farmer representatives</td> <td>Invited to Buluto IS for a field visit and training to introduce the project activities.</td> </tr> <tr> <td>October 2019</td> <td>A total of 23 people from Oebaba and Caraulun IS, including Director or MAF municipality office, village chief, extension workers, and farmer representatives</td> <td>Invited to Maliana IS for a field visit and training to introduce the project activities.</td> </tr> <tr> <td>August 2022</td> <td>?</td> <td>Visited Larisula and Bebui IS among 5 IS in Output 5 indicators to observe land use, rice cultivation, irrigation facilities and its status.</td> </tr> <tr> <td>April 2023</td> <td>Director of MAF Municipality Office and irrigation staff from other areas (Lautein, Vikeke, Kovalima, Manufahi, and Oecussi)</td> <td>Invited to Dili to share project activities and lessons learned, and to provide practical training in participatory irrigation management.</td> </tr> <tr> <td>July 2023</td> <td>NLC staff, NLC warehouse staff, MAF staff and stakeholders related to rice distribution, in Oecussi, Baucau and Natarubora in Manatuto</td> <td>Participated in total three on-the-job training session in Dili (July 13), Maliana(July 20) and Baucau (July 27) on rice quality control.</td> </tr> </tbody> </table> <p>Between and within project site</p> <table border="1" data-bbox="806 1380 1921 1465"> <thead> <tr> <th>Date</th> <th>Participants</th> <th>Activity</th> </tr> </thead> <tbody> <tr> <td>2022/5/11-14</td> <td>10 members from Maliana IS</td> <td>visited Buluto Irrigation District on an exchange visit.</td> </tr> <tr> <td>September 2022</td> <td>MAF officials, local administrators, and other attendees</td> <td>Dry-season crop results were shared at the occasion of dry-season harvest festival. They recognized that Buluto is the only</td> </tr> </tbody> </table>	Date	Participants	Activity	October 2019	A total of 19 people from Larisula and Bebui IS, including Director or MAF municipality office, Sub-district Administrator, village chief, extension workers, and farmer representatives	Invited to Buluto IS for a field visit and training to introduce the project activities.	October 2019	A total of 23 people from Oebaba and Caraulun IS, including Director or MAF municipality office, village chief, extension workers, and farmer representatives	Invited to Maliana IS for a field visit and training to introduce the project activities.	August 2022	?	Visited Larisula and Bebui IS among 5 IS in Output 5 indicators to observe land use, rice cultivation, irrigation facilities and its status.	April 2023	Director of MAF Municipality Office and irrigation staff from other areas (Lautein, Vikeke, Kovalima, Manufahi, and Oecussi)	Invited to Dili to share project activities and lessons learned, and to provide practical training in participatory irrigation management.	July 2023	NLC staff, NLC warehouse staff, MAF staff and stakeholders related to rice distribution, in Oecussi, Baucau and Natarubora in Manatuto	Participated in total three on-the-job training session in Dili (July 13), Maliana(July 20) and Baucau (July 27) on rice quality control.	Date	Participants	Activity	2022/5/11-14	10 members from Maliana IS	visited Buluto Irrigation District on an exchange visit.	September 2022	MAF officials, local administrators, and other attendees	Dry-season crop results were shared at the occasion of dry-season harvest festival. They recognized that Buluto is the only	Achieved																																					
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6. Necessary options for formulating domestic rice promotion policies are prepared and shared by the stakeholders.	6.1 A roadmap of the policy for increase of domestic rice production, is discussed by Taskforce.	<ul style="list-style-type: none"> Taskforce has not been established yet while many efforts were made. <ol style="list-style-type: none"> A draft roadmap for increasing domestic rice production was prepared by a short-term expert and briefed to the MAF staff. In June 2022, MAF Minister mentioned that the task force should be set up as soon as possible when the CMEA Minister, advisors, and former MAF Minister gathered, with the coordination of MAF person-in-charge, On December 6, 2022, at the 11th JCC, it was agreed that the MAF person-in-charge would officially be assigned as Sub-Manager of Output 6. On December 14, 2022, a request letter was issued by the MAF Minister's Office to the MTCI Minister (cc: CMEA, MAF, JICA office, etc.) requesting a preliminary meeting to establish a rice working group/task force. On the same day, the said MAF person-in-charge was approved by the MAF Minister as Sub-Manager. Since then, the task force has not been launched yet, although further coordination for the launch of the task force was conducted by this C/P. A revised version of the Joint Dispatch was also prepared by the C/P during this year, reviewed by the Director General of Agriculture (Project Director) and Ministerial Advisor in MAF, and submitted to CMEA. However, there was a slight misunderstanding between the two parties and CMEA is preparing the document again. 	Not Achieved										

Appendix 12. Transition of PDM Narrative Summary (Overall Goal, Project Purpose, Outputs)

	PDM Ver. 0.0 R/D: May 25, 2016	PDM Ver. 1.0 Amended R/D: February 22, 2018	PDM Ver. 2.0 Amended R/D: July 11, 2019 (After the Mid-term Review)	PDM Ver. 3.0 Amended R/D: November 4, 2020	PDM Ver. 4.0 Amended R/D: March 24, 2023 (After the Advisory Mission)
Overall Goal	Livelihood of farmers living in the project sites is improved through increase in income by improved rice production.	Livelihood of farmers living in the targeted municipalities is improved through increase in income by improved rice production.	Farmers households' income from rice production in the targeted municipalities is increased through the improvement of rice value-chain (Production, Harvesting, Post-harvest and Processing, Distribution and Sales/Consumption).	-Ditto-	The improved rice value chains are sustained in Buluto and Maliana I with the initiative of the Government of Timor-Leste.
Project Purpose	Selected farmers households' income from rice produce in the project sites is increased through the improvement of value-chain (Production, Manufacturing & Processing, Distribution and Sales/Consumption).	Farmers households' income from rice production in the project sites is increased through the improvement of value-chain (Production, Manufacturing & Processing, Distribution and Sales/Consumption).	Farmers households' income from rice production in the project sites is increased through the improvement of rice value-chain (Production, Harvesting, Post-harvest and Processing, Distribution and Sales/Consumption) achieved by Collaborative Approach*).	-Ditto-	-Ditto-
Output 1	Cultivation techniques for increasing rice production are improved in the project sites.	-Ditto-	System of rice farming is improved.	-Ditto-	-Ditto-
Output 2	Capacity of operation and maintenance (O&M) for irrigation facilities is strengthened.	-Ditto-	System of irrigation water management among farmers is improved.	-Ditto-	-Ditto-
Output 3	Model(s) of domestic rice distribution/ sales are prepared for the rice branded by the project.	System(s) of domestic rice distribution/ sales are prepared for the rice branded by the project.	System of domestic rice distribution / sales is improved.	-Ditto-	-Ditto-
Output 4	The rice purchasing/ distribution system of government is improved.	-Ditto-	System of domestic rice purchasing / distribution system by the government is improved.	Domestic rice purchasing / distribution system by the government is improved.	-Ditto-
Output 5	N/A	The Project activities are shared with stakeholders in other municipalities such as southern part of Timor-Leste under the initiative of MAF.	The Government promotes domestic rice by planning appropriate policies and disseminating lessons learned from the Project.	The lessons learned from the Project are shared with stakeholders in other municipalities under the initiative of MAF.	-Ditto-
Output 6	N/A	N/A	N/A	Necessary options for formulating domestic rice promotion policies are prepared and shared by the stakeholders.	-Ditto-

*) Collaborative approach requires all stakeholders to understand their appropriate roles and responsibilities and to work together.

Appendix 13. Response to the recommendations of Mid-term Review (March 2019) and Advisory Mission (December 2022)

(1) Recommendation of Mid-term Review

Recommendation	Response by the Project
<p>(1) In terms of policy implementation</p> <ul style="list-style-type: none"> The Timorese government is recommended to implement the policy on nurturing domestic rice which is in the early stage of development. The project team is recommended to promote policy dialogue with Taskforce including MAF and NLC to encourage them to implement the policy on domestic rice protection. 	<ul style="list-style-type: none"> The Project supported NLC in improving its systematic purchasing system, preparing "SOP for purchasing rice from NLC" MAF person-in-charge was assigned as Sub-Manager of Output 6. The task force to promote policy dialogue has not been launched yet even though many efforts were made by the Project.
<p>(2) In terms of collaborative approach to farmers</p> <ul style="list-style-type: none"> The project team is recommended to consider integrating its activities into Timor-Leste's extension methods in order to ensure the sustainability of the project. Extension officers are recommended to be more involved with extension and monitoring activities at the project sites so that they can continue activities to promote sales and production of domestic rice after the end of the project implementation period. 	<ul style="list-style-type: none"> From the 2020 rainy season, the Project has used the technical package in the PAD manual and has implemented FFS through MAF extension workers. FFS selected model farmers as farmer facilitators, and approximately 20 surrounding farmers (lead farmers) gathered at each FFS site five to six times during the cropping season to conduct workshops. Extension workers in target areas are assigned to serve as FFS instructors for the project.
<p>(3) In terms of market</p> <ul style="list-style-type: none"> The project is recommended to work through not only an increase in production amount but also improvement in quality of rice to develop a premium rice market in Timor-Leste. 	<ul style="list-style-type: none"> The Project developed "Rice Quality Control Manual" so that the rice can be graded and that quality data can be used as a basis for determining purchase prices.
<p>(4) In terms of project implementation structure</p> <ul style="list-style-type: none"> The local authorities in the project target sites are recommended to be added to the implementing agencies, as they play key roles in facilitation of project activities. 	<ul style="list-style-type: none"> Municipalities of the target sites have been added as direct target groups in the revised PDM considering their important role in project activities.
<p>(5) In terms of project management</p> <ul style="list-style-type: none"> The present PDM (Version 1.0) should be revised based on the changes made in the project and the project should be implemented and monitored based on the revised PDM proposed by the Mid-term Review Team. 	<ul style="list-style-type: none"> After the Mid-term review, it was revised as PDM (Version 2.0) with R/D amended on July 11, 2010. The Project was implemented and monitored based on the revised PDM until the subsequent revision.

(2) Recommendation of Advisory Mission

Recommendation of Advisory Mission	Current Status	Recommendation at the Terminal Evaluation
<p>Overall Recommendation [Before the project completion] The Project is to be completed in December 2023, and the Mission recommends the following within this last one year.</p> <ul style="list-style-type: none"> The Timorese counterparts are more substantially involved in each Output so that they are well-equipped with the capacity to take the initiative in continuing the activities after the Project. MAF makes efforts to secure budget for continuation of essential activities to sustain the outcomes achieved by the Project. MAF in collaboration with other responsible government agencies establish the Rice Task Force and formulate a policy and future directions of domestic rice production (including to what extent self-sufficiency of domestic rice is to be pursued, despite tremendous effort and investment required such as Irrigation facilities, marketing infrastructure, policy measures to control cheap imported rice flooding into domestic market) <p>[After the Project Completion] - Following is recommendation after the project completion in December 2022. MAFin collaboration with other responsible agencies to continue the essential activities to sustain the outcomes achieved by the Project.</p>	<ul style="list-style-type: none"> The Timorese counterparts are more substantially involved in each Output △ Securing a budget is a general issue. What we have confirmed is that the prefecture's MALF has actually applied for a budget for direct seeding, and the Irrigation Department of the province has actually applied for next year's budget for facility O&M. We are making progress, so I hope we can continue at this pace. Fuel vouchers have not been implemented, but the government is making efforts. △ Person in charge of the task force are working hard, but no progress has been made. The mission will communicate this to MALFF, including the minister. 	<p>[Points of attention] Project have shown significant impact to improve domestic rice production and sales at two target sites. However, this positive outcome can be sustained and expanded under the condition that government will set appropriate policy to ensure food security and domestic rice promotion, and government provide timely support on operation and maintenance of irrigation scheme which constantly suffered from natural calamity.</p> <p>To Project [Before the project completion] - Share the lessons learned from the Project with Counterparts in Timor-Leste to enhance their motivation, via a seminar or workshop.</p> <p>To MALFF, NLC and other responsible agencies [Before the project completion] - Continue to make efforts to secure budget for continuation of essential activities to sustain the outcomes achieved by the Project. [After the Project Completion] - MALFF in collaboration with the other responsible agencies to continue the essential activities to sustain the outcomes achieved by the Project.</p>
<p>Output 1 [Before the project completion] MAF counterparts are expected to take more initiatives of FFS (supported by the Project) in preparation for the continued initiatives after the project completion. MAF should review and consider the scale of FFS (extension activities) manageable by MAF after the Project completion, and secure necessary budget at least for the following to continue the FFS.</p> <ul style="list-style-type: none"> Assignment of extension staff and MAF officers as lecturers Personnel cost and activity expenses for extension officers and farmer facilitators to support and monitor farmers Distribution of the agricultural inputs and materials through the large-scale 	<ul style="list-style-type: none"> MAF counterparts including staff of MAF HQ and extension officer of Municipal MAF are actually taking more initiatives of FFS. △ Discussion on FFS to be continued at Municipal MAF demonstration fields is ongoing. Budget for staff and daily operation may be secured, but budgets for materials and equipment are difficult. One extension officer is assigned to one village at Municipality. Extension officer and Model Farmer are lectures of FFS workshop in the Project. △ Budget proposal for 2024 have prepared by Bobonaro MALFF for drum seeders and direct seeding technique, by irrigation section of Central MALFF for O&M of facilities. 	<p>To Project [Before the project completion] - Provide technical recommendation for PAD guideline, extension manual and TOT material to include direct seeding technology and other.</p> <p>To MALFF [After the Project Completion] - Maintain FFS activities 1. ensure timely provision of farm inputs required to implement PAD technology</p>

<p>demonstration</p> <p>➤</p>	<p>△ As the direction of municipality-level initiatives, plans are underway to disseminate technologies to other areas.</p>	<p>2. costs for operation in project area(e.g. cost of agriculture extension personnel expenses)</p>
<p>[After the Project Completion]</p> <p>- FFS should be continued after the Project at the scale manageable by MAF.</p>		
<p>Output 2 [Before the project completion]</p> <p>➤ Current activities should be continued with initiatives by each stakeholder (WUA, gatekeepers, MAF Municipal and MAF Central) so that they can autonomously and sustainably manage by themselves after the project completion, which include the following:</p> <ul style="list-style-type: none"> • Continuous implementation of WUA's activities based on the Annual Work Plan. • Water fees should be collected based on the WUA regulation and Budget Utilization Plan should be prepared for proper management and the collected fees. • Daily operation (gate operation) and maintenance of main irrigation facilities by Gatekeepers(GKs)supervised by municipal irrigation officers, in accordance with Irrigation Management Manual. <p>➤ System of practical reporting by municipal irrigation officers to MAF Central is encouraged to be set up.</p> <p>➤ The budget for fuel cost for municipal irrigation officers and GKs starting in FY2023should be secured by MAF.</p>	<p>○ At present, activities of WUA, gatekeepers, Municipal and Central MALFF are conducted properly.</p> <p>○ Activities are ongoing based on the Annual Work Plan</p> <p>△ Collection rate is relatively low in Maliana 1, where the countermeasures to increase the rate are being discussed in the Project.</p> <p>○ Daily operation by GK are conducted in accordance with the Irrigation manual.</p> <p>○ Regarding Buluto IS, irrigation officer reports to the MALFF director in the form of quarterly reports. Regarding Marliana 1, irrigation officer is preparing a semi-annual report for submission to MALFF central.</p> <p>△ Fuel cost is still covered by the Project in 2023. Issue on Budget is common across the outputs and need to be covered under overall recommendation.</p>	<p>To Project and WUA [Before the project completion]</p> <ul style="list-style-type: none"> - The team appreciate current project practice to support operation of WUA including O&M of irrigation scheme and collection of water fee and request steady implementation and monitoring of current practice up to project completion including, <ul style="list-style-type: none"> ➤ Enhancement of transparency for water fee collection and usage among WUA member through regular communication, improvement of water fee collection procedure as appropriate (ex. provision of certificate to water fee collector with a signature of Suco chief and WUA chairperson) ➤ Daily operation of irrigation O&M following Irrigation Management Manual (IMM) and annual workplan, including trial on rotational irrigation <p>To WUA [After the Project Completion]</p> <ul style="list-style-type: none"> - Review water fee collection and collection method regularly, update water fee collection method as necessary. - Review the result of irrigation O&M status including the result of rotational irrigation regularly, update IMM as necessary.
<p>[After the Project Completion]</p> <p>- The following should be continued;</p> <ul style="list-style-type: none"> • Practical support/guidance for and monitoring of WUA activities by municipal irrigation officers. • Supervision/guidance for and monitoring of GKs by municipal irrigation officers. • Practical monitoring of municipal irrigation officers' activities by MAF Irrigation Department. • The budget for fuel cost for municipal irrigation staff and GKs should be continuously secured by MAF. • A model dissemination plan to other priority irrigation schemes is encouraged to be discussed and developed. 		<p>To MALFF and the other responsible agencies [Before the project completion]</p> <ul style="list-style-type: none"> - Steady implementation and monitoring of irrigation O&M by each stakeholder (Gatekeepers (GKs), Prefecture and MALFF), which include the following; <ul style="list-style-type: none"> ➤ Daily operation (gate operation) and maintenance of main irrigation facilities by GKs supervised by municipal irrigation officers, in accordance with Irrigation Management Manual. ➤ Reporting System implementation which support regular reports from Prefecture to MALFF. <p>[After the Project Completion]</p> <ul style="list-style-type: none"> - Clarify the role and responsibility in irrigation O&M among all stakeholders including national government, provincial/municipal government, and WUA. This process could include enactment of irrigation law. - Secure resources for irrigation O&M, especially maintenance and rehabilitation of main canal and headworks
<p>Output 3 [Before the project completion]</p> <p>➤ CAAKUB is expected to take the initiative to purchase paddy from the member farmers in accordance with the purchase plan.</p> <p>➤ CAAKUB is expected to well grasp the growth management records and harvest timing of member farmers so that they can provide the services such as equipment rental and technical support in timely manner.</p> <p>➤ CAAKUB is expected to hire and assign personnel to manage the above in more autonomous and sustainable manner.</p> <p>➤ It is recommended that the equipment (e.g., threshing /rice milling machines) provided by the Projects should continue to be effectively utilized in the project sites. Timorese counterparts should consider to whom the equipment should be handed over and how they should be properly operated and managed after the project completion.</p>	<p>○ CAAKUB is making efforts and it's working. There is competition among private businesses. This has become a challenge for CAAKUB as well. Efforts are ongoing.</p> <p>○ Farmers Information Sheet are prepared to collect necessary information such as when to buy rice from which farmers.</p> <p>○ CAAKUB employ staff for its continued activities.</p> <p>○ CAAKUB was provided a powder machine, the maintenance of which are based on how much CAAKUB can collect and sell rice. For Now, the equipment is utilized.</p>	<p>To MALFF [After the project completion]</p> <ul style="list-style-type: none"> - Discuss among stakeholder and provide recommendation about possible options to enhance competitiveness of CAAKUB as farmer association based on the experience through the project. - Discuss among stakeholder and provide recommendation about possible options to promote application of rice quality standard. - Assess provided options and consider possible applicability.
<p>[After the Project Completion]</p> <p>CAAKUB is recommended to continue the followings:</p>		

<ul style="list-style-type: none"> ➤ To purchase paddy from the farmers in accordance with the purchase plan ➤ To implement the membership program to benefit member farmers 		
<p>Output 4 [Before the project completion]</p> <ul style="list-style-type: none"> ➤ NLC is expected to continue to purchase rice from farmers based on the Purchase Plan. ➤ NLC is expected to establish a system (using check sheet) to ensure that the purchase and payment procedures are carried out in accordance with the SOP. ➤ Storage management currently done manually is expected to be computerized. ➤ NLC is expected to modify SOP version 1 and 2 to version 3 including warehouse management control and distribution plan. 	<ul style="list-style-type: none"> ○ NLC is purchasing rice in 2023 based on a purchase plan. ○ NLC is carrying out the work in accordance with SOP procedures, but there is no such system in place as to verify each work step using a check sheet. On the other hand, the 5S/KAIZEN check sheet is being used at the three project warehouses: Mariana, Dili, and Tibar. Warehouse management tasks (cleaning, organizing, etc.) are filled out once a month and sent to NLC. ○ Inventory cards are used to manage warehouse deliveries by farmer group and company. Stocktaking data is entered into PCs and managed on PC at each warehouse. × Version 3 is intended to be focused on sales, and will not be the modification of Version 1 and Version 2. The preparation of Version 3 will not be conducted during the remaining period. 	<p>To NLC [Before the project completion]</p> <ul style="list-style-type: none"> - Update SOP version 1 and 2 include warehouse management control and distribution plan (including 5S/KAIZEN). <p>[After the project completion]</p> <ul style="list-style-type: none"> - Discuss among stakeholder and provide recommendation about possible options to reduce workload to follow all the requirement in procure process from farmer group. - Maintain public rice purchase from farmer group by NLC to improve farmers access to market following purchase plan and SOP. - Review rice purchase procedure regularly and update as required, especially rice purchase from farmer groups.
<p>[After the project completion]</p> <ul style="list-style-type: none"> ➤ Purchase of rice from farmers should be continued based on the purchase plan and SOP. ➤ Warehouse management control and distribution plan is expected to be conducted based on SOPs. ➤ The bank account registration procedure is encouraged to be disseminated to other areas as a good practice. 		
<p>Output 5 [Before the project completion]</p> <ul style="list-style-type: none"> ➤ Seminar or workshop may well be held to share the outcomes and good practices of the Project to stakeholders in other areas. ➤ The outcomes and good practices of each Output should be shared with other stakeholders through the regular mandate and activities of Timorese counterparts. 	<ul style="list-style-type: none"> ○ Seminar and workshop conducted as a part of Output 5 △ Opportunities to share good practices in daily work are being discussed, such as PAD at MALFF demonstration fields. In Maliana, budget of 2024 has also been requested to expand direct seeding technique. They are making progress where they can. 	<p>To MALFF and other responsible agencies [Before and after the project completion]</p> <ul style="list-style-type: none"> - Timorese counterparts are expected to explore the possibilities to share and apply the good practices of this Project to other areas through their regular activities and mandate based on the Implementation and Action Plan.
<p>[After the project completion]</p> <ul style="list-style-type: none"> - Timorese counterparts are expected to explore the possibilities to share and apply the good practices of this Project to other areas through their regular activities and mandate. 		
<p>Output 6 [Before and after the project completion]</p> <ul style="list-style-type: none"> ➤ It is recommended that the procedures for establishing the Rice Task Force be expedited to discuss among the relevant ministries regarding the policy and direction of the domestic rice promotion. ➤ The Rice Task Force is expected to formulate a policy and future directions of domestic rice production (including to what extent self-sufficiency of domestic rice is to be pursued, despite tremendous effort and investment required such as Irrigation facilities, marketing infrastructure, policy measures to control cheap imported rice flooding into domestic market) ➤ MAF is requested to continue support of farmers to increase production and productivity of domestic rice. ➤ NLC is requested to continue to purchase rice from farmers to improve farmers access to market. 	<ul style="list-style-type: none"> △ Lots of efforts are made by C/P and the Project to establish the Task Force. × Rice Task Force has not been established to date. ○ MALFF is committed to continue support farmers where they can, but there is a financial constraint. ○ NLC is continuing to purchase rice from farmers. 	<p>To MALFF and other responsible agencies [Before and after the project completion]</p> <ul style="list-style-type: none"> - It is recommended that either of the following 1or2 would be accelerated to discuss among the relevant ministries regarding the policy and direction of the domestic rice promotion. <ol style="list-style-type: none"> 1. the procedures for establishing the Rice Task Force 2. Incorporation of Rice Task Force 's activities into the existing framework (e.g. KONSSANTIL : National Council on Food Security, Sovereignty and Nutrition in Timor-Leste) - The Rice Task Force or incorporated framework are expected to formulate a policy and future directions of domestic rice production (including to what extent self-sufficiency of domestic rice is to be pursued, despite tremendous effort and investment required such as Irrigation facilities, marketing infrastructure, policy measures to control cheap imported rice flooding into domestic market).
<p>Recommendations for the Japanese Experts</p> <ul style="list-style-type: none"> ➤ In the remaining one year before the project ends, it is expected that the Timorese counterparts get more substantially involved and to take more lead in implementation of each activity so that they can take more initiative after completion of the Project. - The cost necessary for continuation of the activities should be roughly estimated and suggested to the Timorese counterparts(so that they can well grasp a scale of the necessary budget to be secured) 	<ul style="list-style-type: none"> ○ C/P is substantially involved and taking more lead in the Project. ○ 1) Output 1: Costs (input materials and equipment) of implementing techniques recommended in PAD for row transplanting as well as direct seeding, each 1 ha, were calculated and shared with the Extension Department 2) Output 2: Actual amount supported for fuel costs for irrigation staff and gatekeepers is an indication of future necessary expenses. 3) Outcome 3: Expenses spent on activities related to the Mariana Rice Committee (including rice quality control training) is a reference for future necessary expenses. 	

