

Country Name The Democratic Republic of Timor-Leste	Project for Agriculture Master Plan and Irrigation Development Plan
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I. Project Outline

Background	<p>The agricultural sector played an important role in Timor-Leste, accounting for more than 90% of the value of exports (excluding oil) and about 30% of GDP (excluding oil). In addition, about 80% of the national labour force was engaged in the agricultural sector. However, due to frequent flooding, unrepaired irrigation facilities, lack of human resources such as irrigation engineers and extension workers in the ministries and municipalities, and lack of skills among the farmers, the country's agriculture remained extensive and its productivity was low. The government of Timor-Leste formulated the "Strategic Development Plan (SDP)" (2011-2030) in which the agriculture sector was identified as one of the important sectors for economic development. The SDP set targets such as achieving food self-sufficiency by 2020 and expanding irrigated rice fields; however, concrete plans to attain the targets were not clearly shown in the SDP. Therefore, it was necessary for the Ministry of Agriculture and Fisheries (MAF) to develop a master plan (M/P) which presented concrete measures to achieve the SDP targets and secure the necessary budget and human resources.</p>						
Objectives of the Project	<p>The project aims to develop the agriculture M/P outlining the road map to achieve a food self-sufficiency, and the irrigation development plan (D/P) including the comprehensive irrigation scheme inventory and proposal of priority projects, thereby contributing to improvement of food self-sufficiency in Timor-Leste.</p> <ol style="list-style-type: none"> 1. Expected Goals through the proposed plan¹: Agricultural and irrigation development is promoted through strengthened capacity of agricultural planning and implementation in Timor-Leste. 						
Activities of the Project	<ol style="list-style-type: none"> 1. Project Site: whole country (13 Municipalities) 2. Main Activities: 1) Analysis of current conditions in agriculture field, 2) Development of agriculture M/P 3) Development of irrigation D/P 4) Technical transfer 3. Inputs (to carry out above activities) <table> <tr> <td>Japanese Side</td> <td>Timor-Leste Side</td> </tr> <tr> <td>1) Mission members: 12persons</td> <td> <ol style="list-style-type: none"> 1) Staff allocated: the number was not confirmed. 2) Facility and equipment: Office space </td> </tr> </table>			Japanese Side	Timor-Leste Side	1) Mission members: 12persons	<ol style="list-style-type: none"> 1) Staff allocated: the number was not confirmed. 2) Facility and equipment: Office space
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Project Period	(ex-ante) September 2013–April 2015 (20 months) (actual) September 2013–May 2015 (21 months)	Project Cost	(ex-ante) 250million yen, (actual) 273million yen				
Implementing Agency	National Directorate for Policy and Planning (NDPP), National Directorate for Irrigation and Water Management (NDIWM) and National Directorate for Agriculture and Horticulture (NDAH) of Ministry of Agriculture and Fisheries (MAF) (Since 2023, Ministry of Agriculture, Livestock, Fisheries and Forestry (MALFF))						
Cooperation Agency in Japan	Sanyu Consultants Inc.						

II. Result of the Evaluation

[Constraints on the ex-post evaluation]

- As a result of three changes of government and restructuring of ministries after the project completion, in the current implementing agency there were very few staff who remembered activities detailly during the project period. Therefore, the information gathered for the evaluation was limited.
- Since the implementing agency has not updated the agricultural statistics accurately produced by the project, it was difficult to carry out a quantitative evaluation in this survey. Therefore, the results of the survey were mainly based on qualitative information collected through interviews with the implementing agency.

1 Relevance/Coherence

[Relevance]

<Consistency with the Development Policy of Timor-Leste at the Time of Ex-Ante Evaluation >

The project was consistent with the development policy of Timor-Leste at the time of ex-ante evaluation. In the SDP 2011-2030, agriculture is one of the priority sectors, and one of the targets for the agricultural sector by 2020 was to develop an additional 70,000 ha of irrigated rice field.

<Consistency with the Development Needs of Timor-Leste at the Time of Ex-Ante Evaluation >

The project was consistent with the development needs of Timor-Leste at the time of ex-ante evaluation. It was necessary for the MAF to develop the M/P which presented concrete measures to realize the SDP targets and secure the necessary budget and human resources.

<Appropriateness of Project Design/Approach>

The project design/approach was appropriate. Since the proposed agriculture M/P and the irrigation D/P addressed the poverty of vulnerable small farmers, rehabilitation and construction of irrigation canals under the agriculture M/P and the irrigation D/P have benefited to them through improvement of their rice production and incomes by irrigated rice farming. No problem attributed to the project

¹ The degree of achievement of expected goals is not to be assessed in principle at the time of ex-post evaluation, since it is defined as the medium-to-long-term goals which will be attained as a result of crystallizing the proposed plan ("output" of the project).

design/approach was confirmed.

<Evaluation Result>

In light of the above, the relevance of the project is ③².

[Coherence]

<Consistency with Japan's ODA Policy at the Time of Ex-Ante Evaluation>

The project was consistent with the Japan's ODA policy to Timor-Leste at the time of ex-ante evaluation. In the "Japan's Country Assistance Policy for Timor-Leste (2012)", one of priority area was "agriculture and rural development" to create jobs, eradicate poverty and ensure food security.

<Collaboration/Coordination with other JICA's interventions>

Any collaboration/coordination between the project and other JICA's intervention was not clearly planned at the time of ex-ante evaluation.

<Cooperation with other institutions/ Coordination with international framework>

The cooperation/coordination with other donors were planned at the time of ex-ante evaluation. The development policy/plan presented in the agriculture M/P prepared by the project was expected to be taken account for the following donors' interventions: the Australian Agency of International Development (Aus AID) / Australian Centre for International Agricultural Research (ACIAR) supporting production, storage and distribution of improved seeds of major crops (rice, maize, and so on) to farmers under "Seed of Life program (SoL³)", Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ) supporting the strengthening of agricultural extension systems and extension activities under "Support to Rural Development Phase II", and the European Union (EU) and the Food and Agriculture Organization (FAO) jointly planned to develop a database on all aspects of agricultural production. The agriculture M/P prepared by the project was intended to take into account the results of these donors' activities and aimed to create synergies in their supports, but cooperation was not confirmed at the time of the ex-post evaluation.

<Evaluation Result>

In light of the above, the coherence of the project is ②.

[Evaluation Result of Relevance/Coherence]

In the light above, the relevance/coherence of the project is ③.

2 Effectiveness/Impact

<Status of Achievement for the Objectives at the Time of Project Completion>

The objectives of the project were achieved as planned by the project completion. By the time of project completion, the agricultural M/P (Output 1) and the irrigation D/P (Output 2) were prepared. In addition, capacity of planning and implementation of MALFF was strengthened (Output 3) through the project activities for construction of the proposed irrigation scheme and technical support for capacity development in the project because agricultural production and productivity in the irrigated areas developed by the irrigation D/P prepared by the project were really better than the achievements in other potential irrigation schemes financed by the government of Timor-Leste.

<Utilization Status of the Proposed Plan at the Time of Ex-post Evaluation>

The proposed plan has been partially utilized by the time of ex-post evaluation. "Productivity Incentive Stimulating Policy" and "Productivity Improvement Supporting Policy" were not approved. However, the policies have been shared within MALFF and utilized as a reference for other MALFF's projects. In addition, the agricultural M/P was reflected to the JICA's technical cooperation project "The Project for Increasing Farmers Households' Income through Strengthening Domestic Rice Production in Timor-Leste" (2016-2023). (Indicator 1-1). Among 21 programs and projects of "Productivity Improvement Supporting Policy" in the agricultural M/P, 3 projects were completed, 16 projects have been currently ongoing, and 3 projects were in the phase of preparation (Indicator 1-2). The irrigation D/P was not approved by MALFF (Indicator 2-1). However, a certain number of the irrigation schemes identified in the irrigation D/P were approved and implemented annually by MALFF. NDIWM has carried out the surveys of potential irrigation schemes and obtained budget from the Infrastructure Funds. In 2024, a total of US\$10 million has been allocated for the rehabilitation and renovation of "Seical Irrigation" in Baucau, "Maliana II Irrigation" in Bobonaro, and "Irabele Irrigation" in Viqueque municipality, and preparations are underway to procurement of construction. In addition, at the time of ex-post evaluation, MALFF was preparing new detailed engineering designs for more than 20 irrigations schemes and, as of May 2024, is implementing rehabilitation of two large scale irrigation schemes: the "Galata Bahamori irrigation scheme" in Baucau municipality and "Laivai irrigation scheme" in Lautem municipality. Among 5 priority projects in the irrigation D/P, 1 project was completed, 1 project was in the phase of on-going and 3 projects were in the phase of preparation. In addition to the priority projects, 2 irrigation projects were approved and were in the phase of on-going. In addition, the "Buluto Irrigation Scheme Rehabilitation project" and the "Maliana 1 Irrigation Scheme Rehabilitation project", which were not categorized as priority projects but were identified by the project, were completed (Indicator 2-2).

<Status of Achievement for Expected Goals through the Proposed Plan at the Time of Ex-post Evaluation>

The expected goals through the proposed plan have been mostly achieved as planned. As a result of the implementation of the M/P, the area of irrigated rice cultivation has been increased from 25,000 ha in 2017 to 37,000 ha in 2023. Productivity of rice has been increased from 3.12 ton/ha in 2017 to 4.10 ton/ha in 2022. The data on on-farm rice storage losses was not collected by MALFF. Moreover, most of the recommendations provided by the project have been implemented. Cooperation with related agencies and the Ministry of Commerce, Industry and Environment (MCIE, National Logistic Centre at the time of ex-post evaluation) for improving paddy purchasing system and establishment of mechanism of consensus building among related agencies and a new implementation organization are ongoing.

<Other Impacts at the Time of Ex-post Evaluation>

In accordance with "Decree Law No.5/2011 Environmental License", the necessity of an Environmental Impact Assessment or an Initial Environment Examination for the irrigation schemes identified in the irrigation D/P were determined by the screening of the project, based on the size of the beneficiary area. As for the pollution control for air and water qualities that were under consideration in Timor-Leste, the project prepared mitigation measures and monitoring plan. As for the natural environment and the social environment, three of the five priority projects in the irrigation D/P were expected to conduct the improvement of existing irrigation facilities and the impact

² ④ : very high, ③ : high, ② : moderately low, ① : low

³ This program supports production, storage and distribution of improved seeds of major crops (rice, maize, and so on) to farmers.

prediction and assessment methods proposed by the project were used to conduct a preliminary study.

As a result, it was assessed that the negative impact on the environment would be limited to the construction period, and that the extent of the impact would be relatively small, and that there would be no resettlement of residents. In addition, there are no nature conservation areas or bird sanctuaries in the priority project areas, and there was no anticipated impact on rare species due to the projects. The implementation of the projects was expected to cause air pollution, water pollution, waste such as construction soil, soil contamination, noise and vibration, and road congestion, and it was necessary to temporarily acquire farmland in the surrounding area to secure a materials storage area, however, these were limited to the construction period only.

Especially, in “Production increase project of domestically produced commercial rice in the Halecou area, Bobonaro district” and “Substantially agricultural strengthening project in Bikaliu area, Viqueque district”, there were trees and stones of cultural value to local residents near the intake weir of the irrigation facilities, therefore appropriate measures were required during project implementation. In addition, in both projects, it was necessary to temporarily block the flow of the waterway, therefore, any measures should be taken. In order to explain the content of the proposed priority projects and the impact of the projects on the environment, the stakeholder meetings were also held in the priority project areas, with the participation of farmers, MAF officials, rice dealer, and District environmental department officials. During the question-and-answer session, there were strong expectations for the implementation of the projects, and no opposing opinions were expressed. No other positive and negative impacts have been confirmed as of ex-post evaluation.

<Evaluation Result>

In light of the above, the effectiveness/impact of the project is ③.

Status of Achievement of Utilization Status of the Proposed Plan and Expected Goals through the Proposed Plan

Aim	Indicators	Results	Source																																									
(Utilization Status of the Proposed Plan)	Indicator 1-1 The agriculture M/P is approved by MAF.	Status of Utilization: Not utilized. (Ex-post Evaluation) “Productivity Incentive Stimulating Policy” and “Productivity Improvement Supporting Policy” proposed by the project were not approved. (Source: MALFF)	MALFF																																									
1) Approval and formulation of policies/ programs proposed in the agriculture master plan by MAF	Indicator 1-2 The programs/projects for rice productivity improvement	Status of Utilization: Utilized (Ex-post Evaluation) Among 21 programs and projects under “Productivity Improvement Supporting Policy” in the Agriculture M/P, 3 projects were completed, 16 projects were ongoing, and 3 project were in the phase of preparation. (Source: MALFF)	MALFF																																									
2) Implementation of action plan centering on priority projects in the Irrigation D/P.	Indicator 2-1 The irrigation D/P is approved by MAF.	Status of Utilization: Not utilized (Ex-post Evaluation) The irrigation D/P was not approved by MAF. (Source: MALFF)	MALFF																																									
3) Development of MAF’s planning and implementation capacities	Indicator 2-2 The number of implemented action plan centring on priority projects in the irrigation D/P.	Status of Utilization: Partially Utilized (Ex-post Evaluation) Among 5 priority projects in the irrigation D/P, 1 project was completed, 1 project is on-going and 3 projects are in the phase of preparation. In addition to the priority projects, 2 irrigation projects were approved and are currently ongoing. (Source: MALFF)	MALFF																																									
(Expected Goals through the Proposed Plan)	Indicator 1 Agricultural and irrigation development is promoted.	Status of Achievement: Mostly achieved as planned (Ex-post Evaluation) <table border="1"> <thead> <tr> <th></th> <th>2017</th> <th>2018</th> <th>2019</th> <th>2020</th> <th>2021</th> <th>2022</th> <th>2023</th> </tr> </thead> <tbody> <tr> <td>Area of irrigated rice cultivation (ha)</td> <td>25,000</td> <td>27,000</td> <td>29,000</td> <td>30,000</td> <td>31,000</td> <td>35,000</td> <td>37,000</td> </tr> <tr> <td>Productivity of Rice (Ton/ha)</td> <td>3.12</td> <td>3.37</td> <td>3.57</td> <td>3.80</td> <td>4.10</td> <td>4.10</td> <td>N/A</td> </tr> <tr> <td>On-farm rice storage losses (%)</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> (Source: MALFF) <p>Among 7 recommendations proposed by the project, 1 recommended action was partially completed, 5 recommended actions were in the phase of on-going, and 1 recommendation was not implemented.</p> <table border="1"> <thead> <tr> <th></th> <th>Recommendation by the project</th> <th>Progress of implementation</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Provision of the administrative environment for the agriculture M/P and the execution organization in the MALFF</td> <td>Status: Not implemented The administrative environment has not yet been officially launched by MALFF.</td> </tr> <tr> <td>2</td> <td>Cooperation with related</td> <td>Status: On-going</td> </tr> </tbody> </table>		2017	2018	2019	2020	2021	2022	2023	Area of irrigated rice cultivation (ha)	25,000	27,000	29,000	30,000	31,000	35,000	37,000	Productivity of Rice (Ton/ha)	3.12	3.37	3.57	3.80	4.10	4.10	N/A	On-farm rice storage losses (%)	N/A		Recommendation by the project	Progress of implementation	1	Provision of the administrative environment for the agriculture M/P and the execution organization in the MALFF	Status: Not implemented The administrative environment has not yet been officially launched by MALFF.	2	Cooperation with related	Status: On-going	MALFF						
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		agencies	MALFF is coordinating with the government of Indonesia, the government of Brunei and the government of China to invest in potential agricultural food production areas, including those recommended by this project.	
	3	Cooperation with MCIE for improving paddy purchasing system	Status: On-going MALFF is coordinating with MCIE (currently, operations are transferred to the National Logistic Centre (NLC) ⁴) to improve the paddy purchase system. NLC has allocated a budget each year to purchase paddy from local farmer groups. However, as paddy production in the country is insufficient to meet national consumption, MALFF is expected to work with farmers to increase production.	
	4	The proposed priority projects should be implemented prior to the implementation of nationwide M/P.	Status: On-going Current government policy is more focused on food production. However, MALFF will implement an approach that includes the irrigation D/P in the future, taking into account budget allocations.	
	5	MALFF takes action to achieve political consensus among related ministries, budget allocation and establishment of a new implementation organization.	Status: On-going A consultative body called KONSSANTIL (National Council for Food Sovereignty, Food Security and Nutrition in Timor-Leste) was established in 2013, and the current government is trying to re-activate it with its functions to support food security and nutrition issues.	
	6	Capacity development through on-the-job style in the implementation process of the priority projects	Status: On-going Capacity development for MALFF through on-the-job training style in the priority projects has been implemented. However, the number of MALFF officials in the priority project areas is limited. Therefore, further support for human and financial resources is needed.	
	7	the priority projects are to be implemented under the technical support from the donors	Status: partially completed “The Project for Increasing Farmers Households’ Income through Strengthening Domestic Rice Production in Timor-Leste” (2016-2021) was completed.	

3 Efficiency

Both the project cost and the project period slightly exceeded the plan (the ratio against the plan: 109 % and 105 %, respectively) due to the combined factors.

	Project Cost (Japanese side only, yen)	Project Period (months)
Plan (ex-ante)	250 million yen	20 months
Actual	273 million yen	21 months
Ratio (%)	109%	105%

Outputs were produced as planned.

In the light above, the efficiency of the project is ③.

4 Sustainability

<Policy Aspect>

The SDP (2011-2030) is still valid from the time of the ex-ante evaluation to the present. The “9th Constitutional Government Programme” (2023-2028) also includes a policy objective to increase rice self-sufficiency, irrigated area and production of maize, root and tuber crops. These policies are in the same direction as the agriculture M/P. The agricultural sector is one of the priority areas in the “National Budget for 2024”, and the government has stated that it will invest in research and development to ensure food security and increase agricultural productivity and competitiveness. In addition, The Minister of MALFF has stated that the main role of MALFF over the next five years will reduce dependence on imported foodstuffs by increasing domestic food production.

<Institutional/Organizational Aspect>

As there are constraints in terms of financial and human resources, the number of MALFF officials in the priority project areas is limited. However, it is expected that some of the constraints can be partially resolved in the short term through other donor supports and allocation budgets. Although it is uncertain what effects will accrue to the projects proposed by the project, the government is planning a series of collaborative meetings between MALFF and international organizations, donors, and other stakeholders to achieve the agricultural sector targets of SDP.

<Technical Aspect>

MALFF’s staff has not sustained necessary skills and knowledge to implement the M/Ps prepared by the project. Although the trainings for capacity building have been conducted by JICA and other donor projects in some areas consistent with the project, the dissemination system from the trained staff in the Project to newly contracted staff etc. does not work, because the opportunity of dissemination such as information sharing mechanism and in-house training, is not well established in MALFF. As a result, MALFF has not been able to conduct its own review of the latest status or update its findings on the items surveyed in the Project.

<Financial Aspect>

⁴ National Logistic Centre (NLC) had succeeded to the purchasing system and the import system of MCIE and started their business on the purchasing of agriculture produce in fiscal year 2015.

MALFF's budget was around 2% of the national budget in 2023, however this has been reduced to 1.3% in 2024. The total budget in 2024 is around 20 million USD, of which 9 million USD is for staff salaries which is not enough budget to sustain the project effect (excluding allocations from the Infrastructure Fund⁵). As the projects proposed in the agriculture M/P and the irrigation D/P cover a wide range of areas, it was not possible to verify whether appropriate budget allocations have been made within the ministry. This is because the budget plans are organized more or less by department, but there is lack of cross-ministry planning and budget management for complex projects such as combination of agricultural technology extension, irrigation water management, and agribusiness and the necessary budget has not been obtained due to the lack of appropriate budget requests based on cost-effectiveness to the Ministry of Finance. However, MALFF can obtain additional budget from the Administrative Council of the Infrastructure Fund, depending on the project contents and size.

<Environmental and Social Aspect>

At the time of ex-post evaluation, no issues on environmental and social aspect were observed and it has not been necessary to take any countermeasures.

<Evaluation Result>

In light of the above, some problems have been observed in terms of the institutional/organizational / technical / financial aspects of the implementing agency. Therefore, the sustainability of the project effects is ① .

5 Summary of the Evaluation

The project prepared the Agriculture M/P and Irrigation D/P and implemented capacity development of planning and implementation of MALFF. After the project completion, the proposed plans have been almost utilized as planned and contributed to agricultural and irrigation development. As for sustainability, some positive aspects have been observed in terms of the policy and environment and social aspects of the implementing agencies.

Considering all of the above points, this project is evaluated to be satisfactory.

IV. Recommendations & Lessons Learned

Recommendations for Implementing Agency:

- It is recommended that MALFF establish a mechanism to monitor the status of activities and budget execution. As there is no mechanism to monitor the deviation between the target and actual results for the activities of each project and the execution of the budget respectively, proper budget planning and requesting are not implemented.
- It is recommended that the Planning Department and the Partnership Department of MALFF consider the operation of the project after the completion of donor's financial support at the project formulation stage, based on the idea of project continuity. During the implementation period with donor financial support, the budget of the project is added to the regular budget of MALFF by the donor. However, if it is envisaged that the project will continue beyond the period of donor support at the project formulation stage, it is necessary for MALFF to formulate an appropriate long-term plan and request the Ministry of Finance to allocation budget as part of the regular budget after the completion of the donor support.

Lessons Learned for JICA:

- Although the programs and projects proposed in the M/P were more at the policy level than at the practical level involved by MALFF officials, the M/P itself was not approved by the government. When a M/P is prepared through Technical Cooperation for Development Planning Project, JICA, the implementing agency and relevant parties should confirm whether the M/P is to be used as a reference document for regular operation or the final report itself is to be used as a policy document. Especially in the relationship between JICA and the implementing agencies, the needs and assumed utilization in the implementing agency will be confirmed at the time of the detailed planning survey. Moreover, the composition of the M/P should also be examined from the perspective of the implementing agencies' purpose.
- Due to inadequate budget planning capacity and insufficient planning capacity to incorporate the M/P into their own activation plan, the implementing agency has not allocated budgets for the priority projects. Therefore, at the time of the detailed planning survey, JICA and the consultant should consider incorporating a capacity-building of policy planning into the project, ensuring that the composition and content of the M/P reflects the implementing agencies' business plans, or supporting the implementation of programs/projects proposed by the M/P.
- The project incorporated "capacity building of planning and implementation of implementing agency" as an output in the ex-ante evaluation sheet and the Record of Discussion (R/D). However, at the time of ex-post evaluation, no records on capacity building could be verified. Eight years have passed since the project was completed, making it difficult to collect information even within the implementing agency and JICA. For Technical Cooperation for Development Planning Project, in addition to the submission of the formulated M/P, the project completion report should include changes in outputs or the report on the capacity building should be included in the deliverables from the consultant.

⁵ The government of Timor-Leste established the infrastructure fund in 2011, which is a special fund to finance large infrastructure projects.