

## Project Completion Report Validation

**Timor-Leste Maize Storage Project**  
**Democratic Republic of Timor-Leste**  
**Date of validation by IOE: June 2017**

### I. Basic project data

			Approval (US\$ m)		Actual (US\$ m)	
			US \$	% Total	US \$	% Total
Region	Asia and the Pacific	Total project costs	5.58		5.40	
Country	Democratic Republic of Timor-Leste	IFAD grant	4.94	88.6	4.91	90.8
Grant number	I-DSF-8093-TL	Borrower	0.16	2.8	0.12	2.3
Type of project (subsector)		Beneficiaries	0.48	8.6	0.37	6.9
Financing type	Grant					
Lending terms	N/A					
Date of approval	13 Dec 2011					
Date of grant signature	14 May 2012					
Date of effectiveness	14 May 2012	Other sources				
Grant financing agreement amendments	12 June 2015	Number of beneficiaries		23,000		23,375
Grant closure extensions	One	Grant completion date		Original 30 June 2015		Actual 31 Dec 2015
Country programme managers	Ronald Hartman	Grant closing date		31 Dec 2015		30 June 2016
Regional director(s)	Thomas Elhaut Hoonae Kim	Mid-term review				20 July 2014
Project completion report reviewer	Mark Keating	IFAD grant disbursement at project completion (%)				99.2
Project completion report quality control panel	Fumiko Nakai Michael Carbon	Date of the project completion report				30 June 2016

Sources: Project Completion Report; Oracle Business Intelligence.

## II. Project outline

1. **Country context.** The Democratic Republic of Timor-Leste is an isolated, agrarian country covering 15,000 km<sup>2</sup>, situated on the island of Timor, approximately 700 km northwest of Darwin Australia, with a population of about 1.2 million<sup>1</sup>. It comprises the eastern half of the island of Timor; the nearby islands of Atauro and Jaco; and Oecusse - an exclave on the northwestern side of the island. Its capital city is Dili, with approximately 234,000 people residing in the metropolitan area. The rural areas are mountainous, prone to soil erosion and land degradation, and produce very low yields of rice, maize, and roots and tubers. About 70 per cent of the workforce is engaged in agriculture<sup>2</sup>, with the majority working on subsistence farms. Households commonly experience up to three months without sufficient rice or maize – the hungry season. These shortfalls are offset by government imports and distribution of heavily subsidized rice.
2. Timor-Leste remains<sup>3</sup> one of the most oil-dependent countries in the world with oil and gas revenues accounting for 70 per cent of the Gross Domestic Product and almost 90 per cent of total government revenue between 2010 and 2015. The effectiveness<sup>4</sup> of drawing down money from the Petroleum Fund and channelling it through the budget to meet pressing needs is evident in the near-halving of infant and child mortality rates; significant gains in health and education; economic growth to rival regional neighbours; increasing citizen participation; and, the gradual strengthening of state institutions. Despite impressive progress since achieving independence in 2002, Timor-Leste remains<sup>5</sup> one of the poorest countries in the region, with two-thirds of its population living on less than US\$2 a day. Timor-Leste aspires to become an upper middle income country by 2030 and has set down a clear development agenda through its *Strategic Development Plan 2011-2030*.
3. However, Timor-Leste is also the world's second youngest country (less than ten years old at the time of project design), and is still emerging from its post-conflict and colonial past. The country remains extremely fragile in terms of social, economic, financial, cultural, environmental, climatic, political, and institutional factors. The development partner context is also complex with a large number of development partners competing for space and attention in a confined environment.
4. The government's Strategic Development Plan for 2011-2030 offers a vision, targets and indicators for the next two decades. It is built around four pillars: (i) Social capital (health, education and social protection); (ii) Infrastructure (transport, telecommunication, power, and water supply and sanitation); (iii) Economic foundations (targeting three sectors for development – agriculture, tourism and petrochemicals – to bring about growth, jobs, and new sources of public revenues beyond oil); and (iv) Institutional framework (focusing on macroeconomic management and improving the capacity and effectiveness of government institutions).

### Project description

5. The three-year Timor-Leste Maize Storage Project (TLMSP) was approved by the IFAD Executive Board in December 2011 and the grant entered into force on 14 May 2012. This was IFAD's first ever support to Timor-Leste after it became a member of IFAD in 2005. The original project completion date was set at 30 June 2015 and project closing at 31 December 2015; following a six-month extension of

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<sup>1</sup> Government of Timor-Leste. 2015 census.

<sup>2</sup> President's Report EB-2011-104-R-25-Rev.1

<sup>3</sup> Australian Government, Department of Foreign Affairs and Trade, Timor-Leste Country Brief, 2016.

<sup>4</sup> WB Country Brief, 15 Sept 2016.

<sup>5</sup> Australian Government, Department of Foreign Affairs and Trade, Timor-Leste Country Brief, 2016.

the grant financing agreement, the actual project closing took place on 30 June 2016.

6. **Project area and target group.** The President's report<sup>6</sup> stated that the project was to initially **target** the economically active poor (households producing about 150 kg of maize per year) in the districts of Aileu (year 1), Manufahi and Manatuto (year 2), and Ainaro and Viqueque (year 3). These districts were targeted because 67 per cent of their households live below the 2008 poverty line. The first four districts are in the central region, which has the highest concentration of poverty and where maize is a vital staple. Access is limited by poor roads and tracks, and the project area lacks potable water. The project was expected to directly benefit between 60 to 65 per cent of rural households in these districts (approximately 23,000 households). The **target group** is poor by any standard and most are food-deficient for about three months of the year. One of the fundamental causes of rural poverty in the area is the overwhelming dependence on on-farm employment, with farms characterized by subsistence farming systems that have not changed for generations – featuring very low crop productivity and high on-farm losses of stored maize and other crops.
7. **Project goal, objectives and components.** The project **goal** was to improve food security for maize growing households in Timor-Leste, while the **development objective** was to reduce losses of maize stored on-farm. This improvement in household food security was expected initially to increase on-farm supplies of maize after harvest, and then reduce the length of the hungry season.
8. The Project had three components:
  - i. **Component 1: Purchase and/or manufacture of maize storage drums.** The main output from this component was that maize storage drums would be procured and/or manufactured locally. During the first phase, the project was to depend on the international supply of new 200-litre drums (42,000 drums over three years). At the same time, local private-sector drum manufacture would be investigated, focusing on alternative drum/container designs, in-field testing of prototypes, and business development feasibility studies on developing local drum manufacturing capacity.
  - ii. **Component 2: Distribution of maize storage drums.** The main output of this component was that maize storage drums would be distributed and used effectively. This output was to be achieved through the following steps: (i) appointing and training project facilitators in community organization skills and drum delivery and use; (ii) targeting and preparing households, in terms of eligibility and desire to use one or two drums for maize storage, depending on their maize production volume and willingness to pay a co-contribution of US\$10 per drum; (iii) preparation of district, sub-district, *suco* [village] and *aldeia* [hamlet] drum delivery and distribution plans; (iv) drum distribution in time for the next maize harvest, and collection of recipients' co-contributions; (v) training and support in drum use and management by project facilitators; (vi) piloting of drum distribution through agents in district markets; and (vii) drum distribution through selected NGO community networks. About 23,000 households were to receive approximately 42,000 drums during the three-year project period.
  - iii. **Component 3: Project management and coordination.** The main output from this component was to have efficient project management and coordination. This was to be achieved through: (i) the establishment and operation of a project management unit (PMU) embedded in the Ministry of Agriculture and Fisheries (MAF) National Directorate of Agriculture and Horticulture; (ii) the design and operation of a monitoring and evaluation

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<sup>6</sup> EB 2011/104/R.25/Rev.1

framework; and (iii) the appointment of coordinators and facilitators. Project monitoring was to encompass: (a) baseline and follow-up household surveys on maize storage losses; (b) periodic assessment of on-farm maize storage practices; and (c) periodic assessment of drum use. Participatory impact assessment would be an important tool for ascertaining beneficiaries' views on project performance and results.

9. **Institutional and implementation arrangements.** The project was to apply a community-based and participatory approach for project implementation. The field-level activities (drum distribution) were to be implemented through the government's district administration staff and networks, local community organizations and village leaders. The MAF would be the lead implementation agency for the project. A Steering Committee would provide overall direction and guidance. The PMU was embedded within the MAF complex in Dili, and MAF district offices were to provide office space and drum storage facilities as required. The PMU was to be responsible for day-to-day project implementation and would manage district coordination. District coordination offices were to be established under a phased approach in target districts and operate for a period of about one year. District coordinators and deputy district coordinators would, in turn, manage the project facilitators, whose key role was to work closely with *suco* (village) and *aldeia* (hamlet) chiefs to select beneficiary households, organize drum delivery, train recipients in drum use and maintenance, and conduct periodic monitoring activities. The main field-level operatives would be: (i) *suco* councils, and *suco* and *aldeia* chiefs, who would be responsible for community organization activities; and (ii) project facilitators, who would be the key field-level implementers with support from the project's district and deputy district coordinators.
10. **Project costs and financing.** Based on the President's report, the total project cost over three years was an estimated US\$5.58 million, including physical and price contingencies. The Government of Timor-Leste, IFAD and beneficiaries would fund US\$0.16 million (2.8 per cent), US\$4.94 million (88.6 per cent) and US\$0.48 million (8.6 per cent) of total costs, respectively, including contingencies. The Government would finance the tax and duty element of all expenditure, and would also be making an in-kind contribution in the form of staff time, which has not been costed. Beneficiaries would be required to make co-payments of US\$10 per drum, equal to about 20 per cent of the farm gate price of a 200-litre drum. IFAD would provide grant financing for all other project cost elements under its Debt Sustainability Framework (DSF).
11. At project completion the actual total cost was US\$5.4 million, with an IFAD disbursement of US\$4.9 million or 90.8 per cent of total costs. Table 1 and Table 2 below show the details of project expenditures.

Table 1

**Project expenditures by financier (US\$ '000)**

<i>Financier</i>	<i>Planned</i>	<i>%</i>	<i>Actual</i>	<i>%</i>
IFAD	4,945	88.6	4,906	90.8
Government	155	2.8	123	2.3
Beneficiaries	483	8.7	371	6.9
Total	5,583	100.0	5,400	100.0

Table 2

**Financial performance by financier by component (USD '000)**

Component	IFAD		Government		Beneficiaries		Total		%
	Approved	Actual	Approved	Actual	Approved	Actual	Approved	Actual	
Purchase of drums	1,892	2,584	101	80	483	1	2,476	2,665	107.6
Drum distribution	1,147	1,154	25	20	0	70	1,172	1,245	106.2
Project management	1,906	1,168	29	23	0	300	1,934	1,490	77.0
Total	4,945	4,906	155	123	483	371	5,582	5,400	96.7

Source: TLMSP Project Completion Report

12. **Changes to the Grant Financing Agreement.** There has been only one amendment to the grant financing agreement which came in effect on 31 December 2009. It concerned: (i) extension of the grant closing date by six months, from 31 December 2015 to 30 June 2016; and (ii) re-allocation of grant proceeds to the categories of eligible expenditures.
13. **Intervention logic.** TLMSP was based on a simple and proven strategy of using air-tight drums to store maize, which reduces the normal 30 per cent post-harvest storage losses to 1 per cent. The approach was to increase the supply of drums to poor upland, maize-growing households. Improved access of upland farmers to improved on-farm maize storage reduces the potential of high post-harvest losses and provides incentives for those farmers to adopt higher-yielding maize varieties that are not necessarily as pest-tolerant as lower-yielding local varieties. The complementarity between improved storage and higher-yielding varieties has the potential to dramatically increase net maize production, a huge gain for families who commonly face a three-month hungry season.
14. **Project implementation – delivery of outputs.** The Project benefited 23,375 (target 23,000) upland/rain fed maize-growing families, who suffer from severe 'hungry seasons' in five districts: Aileu district (Year 1), Manufahi and Manatuto (Year 2), and Ainaro and Viqueque (Year 3). Timor-Agung, the only contracted supplier to manufacture and deliver 42,000 maize storage drums with a 200-litre capacity to Dili port, delayed significantly the timely procurement of the drums that resulted in zero delivery of drums for the first maize harvest (2013) and the delivery of only 8,567 drums after the second harvest (2014). As TLMSP was a three-year pilot, the delay meant that many farmers had only one full maize-growing season (2015) to use drums for maize storage. Eventually, the two project outputs, i.e. 42,000 200-litre air-tight drums were manufactured and delivered to Dili (output 1); and nearly all drums (41,337) were distributed to poor, small maize-growing households at a cost of US\$10 per drum (output 2). The delay of the drum shipments to Dili was mainly due to a financial conflict between the contractor and the MAF, as the Ministry owed money (delayed payments) to the manufacturing company for various non-project related supply contracts signed between them. Other challenges causing delays included delays in manufacturing drums, the contractor's own lack of funds to anticipate the contract, and limited shipping and transportation services.
15. The second service provider, the Express Delivery Services, which was contracted to clear, store and deliver drums to *sucos* and *aldeias* in the target districts, performed well. The drums imported from Indonesia to Timor-Leste were about 50 per cent more expensive than anticipated<sup>7</sup>, which required budget adjustments and re-allocation of project funds that resulted in the cancellation of some project activities such as the promotion of commercial drums sales in local markets, and

<sup>7</sup> About US\$60 each compared with an estimated US\$40 per drum.

the conduct of local Research & Development on alternative drum types and designs.

### **III. Review of findings**

#### **A. Core criteria Relevance**

16. **Project objectives.** The project objectives were highly relevant to the national objectives outlined in the Timor-Leste National Strategic Development Plan 2011-2030 and to the MAF's strategic objectives for Timor-Leste's rural sector. TLMSP was aligned with the Government's objective of food self-sufficiency, as well as IFAD's own overarching goal of empowering rural women and men to achieve higher incomes and improved food security at the household level. The Project reflected IFAD's development approach<sup>8</sup> in Timor-Leste, which is underpinned by the use of simple, proven interventions – and participatory, community-based mechanisms – with the potential to generate immediate impact. The maize storage effort also complemented other ongoing initiatives in the country, such as the Australian Agency for International Development's Seeds of Life Project, Phase III, which distributes an improved maize variety that has achieved substantial increases in yield. By addressing one of Timor-Leste's major social issues - upland hunger and poverty - IFAD supported national growth and development, highlighted the importance of rain fed agriculture, and drew greater attention to the difficult situation faced by upland maize-growing households. In addition, IFAD sought to facilitate policy development by providing relevant information and data that are critical for effective decision-making, especially on issues related to food security.
17. **Relevance of project design.** The TLMSP design was simple in terms of structure and components, and the outputs were relevant to the priorities of the targeted rural poor. However, it overestimated the willingness of suppliers to tender for the supply contract, considering their high perception of poor governance and corruption in the country, leading to a much higher cost of the imported drums than anticipated. This required budget adjustments and re-allocation of project funds, which resulted in the cancellation of project side-activities (alternative drum design and pilot testing). The design also didn't recognize the level of support required by farmers after drum purchase to ensure that the drums were used in line with project objectives.
18. **Relevance of project targeting.** Requiring households to share a (small portion) of the cost of the drums was a positive point, going against the pervading "hand-outs" culture created by Government and other development partners, thus increasing self-reliance of beneficiaries. However, it might have excluded the poorest families which did not succeed in raising the US\$10 drum contribution. The Project Completion Report (PCR) also indicates that, due to poor harvests because of unfavourable weather conditions in consecutive years, maize production was often so low, that the grains were consumed before storage was required, reducing demand for drums during the first years (2013 and 2014). Far more drums were distributed in short periods of time in 2015 once the project was extended into other districts. In the end, over 41,000 drums were "sold" to families qualified as poor.
19. **In summary**, the project was in line with Government and IFAD strategies, and aimed at achieving rapid impact through a simple, relevant intervention which was complementary to other development efforts. The interest of regional suppliers to tender was lower than expected, and led to much higher cost of drums than anticipated. This created a shortage in funding, requiring the cancellation of interesting side-activities. The requirement for households to share in the cost of

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<sup>8</sup> President's Report EB-2011-104-R-25-Rev.1

the drums to promote self-reliance and ownership, might have excluded the poorest households from benefitting from the project. Insufficient support was also foreseen to ensure drums were used for maize storage as intended. The Project Completion Report Validation (PCR) rates *relevance of the TLMSP as moderately satisfactory (4)*, one point lower than the PCR.

### **Effectiveness**

20. The project development objective was to reduce losses of maize stored on-farm and improve food security for maize growing households in Timor-Leste. This improvement in household food security was expected initially to increase on-farm supplies of maize after harvest, and then reduce the length of the hungry season. The PCR, based on field data collected and analysed under the project's monitoring and evaluation system and by the National University of Timor Lorosae's study on maize losses, concluded that on-farm storage losses of maize have been reduced by 30 per cent. However, the project faced challenges in having the farmers purchasing the drums, as the drum use remained relatively low (some 60 per cent only), due to lower than expected maize yields as a result of unfavourable weather conditions in 2013 and 2014, when poor and vulnerable people were not producing enough maize to store. In areas where maize production was stronger, utilization rates were much higher. The final project survey showed that the misuse of drums was negligible; only some 6 per cent of recipients, mostly in drought affected areas, used the drums for water storage.
21. As mentioned earlier, the objective of promoting alternative drum design and pilot testing could not materialize, because of higher than estimated drum costs and concomitant reallocation of grant proceeds.
22. The PCR rating for the *project effectiveness is moderately satisfactory (4)*, same as the rating for this criteria assigned by the PCR.

### **Efficiency**

23. TLMSP, a three-year pilot, was implemented over three and half years with a corresponding six-month extension of the project completion and closing dates. The grant was approved in mid-December 2011 and became effective in mid-May 2012 after an effectiveness lag of five months, which is much faster than the 1.5 year average for IFAD-funded projects.
24. TLMSP was a very simple project, which had to produce only two main results: (i) procure and distribute to beneficiaries some 40,000 drums to be used for the storage of maize; and (ii) investigate local-private sector drum manufacture, focusing on alternative drum/container designs, in-field testing of prototypes, and business development feasibility studies on developing local drum manufacturing capacity. The Project failed to produce the second result because the resources earmarked for this activity were used to cover the higher than planned cost of the procured drums. Thus, project efficiency was constrained by two factors, i.e.: (i) the very high cost of the procured drums, 36.6 per cent higher than the design estimate, that absorbed most of the project budget and necessitated the cancellation of the planned activities for the second result (following a re-allocation of the grant proceeds to the eligible categories of expenditures); and (ii) a major delay in the physical procurement and delivery of drums to beneficiary households that resulted in a two-year delay in the flow of benefits. Due to the delay in the delivery of drums (zero delivery in the first 2013 maize harvest, delivery of only 8,567 drums after the second 2014 harvest, and the delivery of 32,270 drums for the third 2015 maize-growing season) the majority of farmers had only one full maize-growing season to use drums for maize storage. The PCR calculated that farmers with drums are earning very high financial internal rates of return (IRR) (300 per cent) when drums are fully subsidized, and very acceptable financial IRRs (38 per cent) if drums are fully priced; the project's base case economic IRR (assuming a constant 60 per cent drum usage rate) is a modest 10 per cent.

25. There were no significant deviations from the original cost estimates in the actual expenditures of eligible categories other than the much higher cost of drum procurement that resulted in the cancellation of the project research and development activities.
26. In view of the much higher cost of drums compared to the design estimate, the delay in the flow of benefits to beneficiaries and the cancellation of the alternative drum design and pilot testing, the PCRV rates project *efficiency as moderately unsatisfactory (3)*, lower than the moderately satisfactory (4) rating for this criteria by PCR.

## **B. Rural poverty impact**

27. According to the PCR, the TLMSP completed the two standard IFAD Results and Impact Measurement System (RIMS) surveys -one as a baseline in Year 1 and one at the end of project, plus a Mid-term Review survey on drums use and drums condition.
28. **Households' income and assets.** A total of 23,363 poor rural maize-growing households now own 41,337 maize storage drums which should function for the next 20 years or longer, with minimal maintenance (simple replacement of lost caps and perished rubber seals). These assets increase returns to farm labour and therefore enhance crop production, food consumption, and if surplus maize is sold, farm incomes. TLMSP has not targeted household incomes, and thus the PCR or the RIMS surveys have not dealt with household incomes, specifically. The logic behind the use of drums for maize storage was that farm households would benefit in the form of having more maize for consumption, and more 'surplus' maize for sale; yet, this 'surplus' - if any - has not been measured. The data collected refer exclusively on the use of drums for maize storage and the consequent savings on maize losses.
29. **Human and social capital and empowerment.** The project cannot claim that it has improved human assets *per se*, but it is reasonable to conclude that a start has been made in terms of engaging with poor rural communities and addressing one of their most fundamental needs (adequate staple food) by reducing post-harvest losses and aflatoxin contamination due to poor storage practices. In this sense, improving nutritional status and health, and imparting knowledge on food storage means that TLMSP has built human assets in the drum recipient households. The project also promoted an attitude of self-reliance and ownership by requiring households to share in the cost of the drums.
30. **Food security and agricultural productivity.** By eliminating post-harvest losses of maize, TLMSP has made a major contribution to net agriculture productivity. The project survey showed that there was a reduction from the baseline in the percentage of households experiencing a hungry season from 95 per cent to 33 per cent, mainly due to reduced post-harvest losses; similarly there was a reduction in the households experiencing a second hungry season from 31 per cent to 6 per cent. The project has not targeted agricultural yields specifically, but 'twinning' with the SoL (Seeds of Life) project has provided incentives for using seeds of higher yielding varieties of maize. The PCR states that SoL has been the stand-out contributor in terms of identifying and releasing improved food crop varieties, including two maize varieties which increase yields by 40 per cent with no changes to agronomic practices. Reduced food storage losses by themselves increase maize volumes available for consumption or selling, but also provide an incentive for farmers to continue using higher yielding varieties.
31. **Institutions and policies.** During the design of the project, analytical work on food losses was conducted in collaboration with the University of Timor Leste, which, according to APR, contributed to national policy on food security and food losses. TLMSP was implemented by MAF with invaluable support and cooperation from development partners, the relationship with the Australian Government



funded SoL project being the most important. The project contributed to building institutional capability by entrusting the Government with implementation rather than working through a parallel project implementation structure, resulting in MAF's readiness to implement much larger investments and projects. The Ministry has proven its capability to run international tenders to acceptable (audited) standards and to work with the national accounting system (Free Balance) operated by the Ministry of Finance. It has also benefited in terms of gaining a better understanding of the staple food supply needs of its constituent farmers, and of how to assist poor upland farmers to protect their limited supplies of maize.

32. In view of the above, the PCRV has rated the *rural poverty impact as moderately satisfactory (4)* same as the PCR rating.

### **Sustainability of benefits**

33. Sustainability entails two aspects<sup>9</sup>: (i) measuring whether the benefits of an activity are likely to continue after donor funding has been withdrawn; and (ii) assessing if benefits are environmentally, as well as financially sustainable, i.e. the likelihood that actual and anticipated results will be resilient to risks beyond the project's life.
34. According to the PCR, the benefits generated by TLMSP have good prospects for continuation in terms of increased use for at least 20 years (life of a drum) of the 41,337 drums distributed, supporting the reduction of food loss and improvement of food security. Survey data shows that some farmers need ongoing support in drum use and maintenance, such as protection from the weather, rust, and screw caps. It is expected that this will be built into ongoing drum use and maintenance training programmes which will have to be provided by MAF's extension service as part of their routine work programmes. District-based Community Facilitators, young university agricultural graduates, of whom 27 per cent were women, raised awareness and proactively supported the communities in the whole drum delivery and extension process. As revealed by the end of project survey, 93 per cent of drums were used for food storage, or if empty, not misused, confirming that drum ownership has been embedded and the vast majority of drum owners are committed to continued and simple maintenance of their drums.
35. Similar investments to TLMSP will be at least partially funded through the World Bank-financed Sustainable Agriculture Productivity Improvement Project.
36. TLMSP is environmentally sustainable. Because drums were subsidized (farmers paid US\$10 per drum) financial sustainability is not considered to be a risk, particularly as the ongoing financial cost is minimal (limited to cap and seal replacement).
37. In view of the certainty that the benefits from the distributed drums will continue for at least 20 years and the good prospects for additional investments on similar activities in the future, the PCRV rating for the *project sustainability of benefits is satisfactory (5)*, higher than the moderately satisfactory (4) rating for this criteria by the PCR.

### **C. Other criteria Innovation**

38. The project generated a number of innovations that may be scaled up by future development programmes funded by Government and or by other development partners. These include: (i) the drum technology itself, which built on earlier experience and was adjusted (proto-type containers were tested) to maximize the impact. The drums were delivered through a participatory approach and requesting a minimum contribution from the communities, which have traditionally been used to subsidies; (ii) working in the *aldeias*, the lower level that is closer to the people;

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<sup>9</sup> IFAD, IOE Evaluation Manual, second edition, 13 November 2015.

(iii) contracting qualified and motivated young facilitators to coordinate and supervise the work in the field; and (iv) perhaps most importantly, entrusting implementation responsibility to the Government, thereby strengthening its capacity. The PCRV rates *innovation as moderately satisfactory (4)*, same as the PCR.

### **Scaling up**

39. TLMSP was expected to be scaled-up in Phase II, in districts not involved in Phase I, with a continued focus on upland, rain fed maize growing areas. Phase II did not materialize due to a hardening of IFAD's lending terms which did not allow the Government to take any further loans from IFAD in line with its debt policy. It was also expected that local private sector businesses would have established in-country drum/ storage container manufacturing facilities, capable of responding to growing demand for this simple technology, another feature which did not materialize. The upcoming US\$21 million Global Agriculture and Food Security Program<sup>10</sup> (GAFSP) funding in partnership with the World Bank that supports the Sustainable Agriculture Productivity Improvement Project is expected to scale up the TLMSP. The PCRV rates *scaling up as moderately satisfactory (4)*, same as the PCR.

### **Gender equality and women's empowerment**

40. Participation of women across the project activities has not been a special project issue. Women comprised 27 per cent of the district-based Community Facilitators and young university agricultural graduates, who raised awareness and proactively supported the communities in the drum delivery and extension process. The PCR does not deal specifically with the gender equality and women's empowerment issue other than quoting that of the total 23,375 beneficiary households, approximately 2,800 (some 12 per cent) were female-headed. APR indicates that the project promoted labour-saving post-harvest technologies that specifically targeted women to reduce potential negative impacts of increased maize volumes on women's labour burden. The PCRV rates *gender equality and women's empowerment as moderately satisfactory (4)*, same as the rating by the PCR.

### **Environment and natural resources management**

41. The Project did not have any environmental objectives and it has not affected the environment in a negative way. As a result, the PCRV has not rated this criterion.

### **Adaptation to climate change**

42. The Project did not have any climate change adaptation objectives and has not contributed directly or indirectly to adaptation to climate change. As a result, the PCRV has not rated this criterion.

## **D. Overall project achievement**

43. The *overall achievement of TLMSP is rated moderately satisfactory (4)*. This rating is based on the project's performance in terms of rural poverty impact, relevance, effectiveness, efficiency, sustainability of benefits, gender equality and women's empowerment, innovation and scaling up. As mentioned in paragraphs 38-39, environment and natural resources management, and adaptation to climate change have not been rated and therefore do not feed in the overall achievement rating.

## **E. Performance of partners**

44. **IFAD.** The project was directly supervised by IFAD. This saw IFAD fielding in a timely fashion eight substantive supervision and support missions during the

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<sup>10</sup> The Global Agriculture and Food Security Program (GAFSP) is a multilateral mechanism to assist in the implementation of pledges made by the G20 in Pittsburgh in September 2009. The objective is to improve incomes and food and nutrition security in low-income countries by boosting agricultural productivity. GAFSP works in partnership with the African Development Bank, Asian Development Bank, Food and Agriculture Organization, Inter-American Development Bank, IFAD, World Bank, and the World Food Programme.

project lifetime, which were of sufficient quality. It conducted a Mid-term Review in July 2014 jointly with the Timor-Leste Government. Annual audits were carried out abiding to required international audit standards and reports were accepted by the Fund. The IFAD design overestimated the willingness of regional contractors to tender for the drum delivery contracts, considering their high perception of poor governance and corruption in the country, which led to an increased drum price and resulted in the cancellation of vital project activities such as the promotion of commercial drums sales in local markets, and the conduct of local Research and Development on alternative drum types and designs. Based on the above, this PCRV rates the *performance of IFAD as moderately satisfactory (4)*, same as the rating of PMD.

45. **Government.** The Government of Timor-Leste, through MAF, had participated in the design of the project, implementation, supervision and offering implementation support, auditing and reporting. On occasions, the response to supervision and implementation support missions' recommendations was slow, partly ascribed to operational budget constraints, which necessitated subsequent missions to again raise previous recommendations. Compliance with the covenants of the loan agreement was satisfactory. The only counterpart funding required was in the form of payment of drum import duties and taxes and these were paid on time. The most serious constraint was the significant delay in the procurement of drums with negative effects on the overall project performance. However, by project completion, MAF had successfully delivered over 41,000 drums to poor rural households, provided other support, and directly implemented for the first time an internally financed project. This was a significant achievement. The Government learnt important lessons and made necessary changes during implementation. Thus, the PCRV rates the *performance of the borrower as moderately satisfactory (3)*, same as PMD.

## **IV. Assessment of PCR quality**

### **Scope**

46. The PCR for TLMSP contains all the sections that are mandatory as stated in the Guidelines for Project Completion (2006), including vital annexes showing costs and disbursements, achievements against the targets, financial and economic analysis and impact on the environment. This PCRV rates the *PCR scope satisfactory (5)*.

### **Quality (data, methods, participatory process)**

47. The PCR employed both qualitative and quantitative research methodologies, based on rich data on all aspects of drum use for maize storage. The PCR carried out a detailed financial and economic analysis, making reference to the annexes to crosscheck the outputs against the targets set in the log frame. The PCR process was completed with the organization of two stakeholder workshops, held in Dili in November 2015 and April 2016, the second of which aimed to validate what emerged from the project completion review and the first workshop. PCRV assesses *quality of the PCR as satisfactory (5)*.

### **Lessons**

48. The PCR produced several lessons, all of them pertinent and valid, including questions and valuable comments on lessons learned in point format. This section is rated as *highly satisfactory (6)*.

### **Candour**

49. The PCR authors were able to keep a clear critical distance in all parts. They provided constructive critiques and gave due credit to the performance of the private sector partners. *Candour is rated as satisfactory (5)*.

## **V. Lessons learned**

50. The Project introduced for the first time a “user pays” type approach. This was hugely controversial during design and at the start of implementation. Timor-Leste cannot afford to continually subsidize and provide free handouts to its growing rural population. At present the “future fund” is supporting this policy – but in the future the country may not have the fiscal capacity to meet the increasing needs and expectations of its rapidly growing population. The project demonstrated that there is capacity for community contributions and showed the related empowerment benefits of self-reliance approaches.
51. TLMSP was designed as a three-year pilot with the objective of proving (at scale) that the use of maize storage drums would result in increased staple food supplies. However, three-year pilots are too short to institutionalize behaviour changes, particularly considering implementation delays, leaving insufficient time to evaluate longer-term impact.
52. Project design did not anticipate or predict variations in staple food production (e.g. due to weather fluctuations) and changes in consumption patterns, nor did it anticipate the emergence of maize as an important animal feed. The developing private livestock industry, particularly pigs and poultry, emerged to need more drums for maize storage.
53. Various actors beyond Project Facilitators, such as NGOs and faith-based organizations, can contribute to raising community awareness and the distribution of extension messages.

## Definition and rating of the evaluation criteria used by IOE

Criteria	Definition *	Mandatory	To be rated
<b>Rural poverty impact</b>	Impact is defined as the changes that have occurred or are expected to occur in the lives of the rural poor (whether positive or negative, direct or indirect, intended or unintended) as a result of development interventions.	X	Yes
	<i>Four impact domains</i>		
	<ul style="list-style-type: none"> <li>Household income and net assets: Household income provides a means of assessing the flow of economic benefits accruing to an individual or group, whereas assets relate to a stock of accumulated items of economic value. The analysis must include an assessment of trends in equality over time.</li> </ul>		No
	<ul style="list-style-type: none"> <li>Human and social capital and empowerment: Human and social capital and empowerment include an assessment of the changes that have occurred in the empowerment of individuals, the quality of grass-roots organizations and institutions, the poor's individual and collective capacity, and in particular, the extent to which specific groups such as youth are included or excluded from the development process.</li> </ul>		No
	<ul style="list-style-type: none"> <li>Food security and agricultural productivity: Changes in food security relate to availability, stability, affordability and access to food and stability of access, whereas changes in agricultural productivity are measured in terms of yields; nutrition relates to the nutritional value of food and child malnutrition.</li> </ul>		No
	<ul style="list-style-type: none"> <li>Institutions and policies: The criterion relating to institutions and policies is designed to assess changes in the quality and performance of institutions, policies and the regulatory framework that influence the lives of the poor.</li> </ul>		No
<b>Project performance</b>	Project performance is an average of the ratings for relevance, effectiveness, efficiency and sustainability of benefits.	X	Yes
Relevance	The extent to which the objectives of a development intervention are consistent with beneficiaries' requirements, country needs, institutional priorities and partner and donor policies. It also entails an assessment of project design and coherence in achieving its objectives. An assessment should also be made of whether objectives and design address inequality, for example, by assessing the relevance of targeting strategies adopted.	X	Yes
Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved, taking into account their relative importance.	X	Yes
Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted into results.	X	Yes
Sustainability of benefits	The likely continuation of net benefits from a development intervention beyond the phase of external funding support. It also includes an assessment of the likelihood that actual and anticipated results will be resilient to risks beyond the project's life.	X	Yes
<b>Other performance criteria</b>			
Gender equality and women's empowerment	The extent to which IFAD interventions have contributed to better gender equality and women's empowerment, for example, in terms of women's access to and ownership of assets, resources and services; participation in decision making; work load balance and impact on women's incomes, nutrition and livelihoods.	X	Yes
Innovation	The extent to which IFAD development interventions have introduced innovative approaches to rural poverty reduction.	X	Yes
Scaling up	The extent to which IFAD development interventions have been (or are likely to be) scaled up by government authorities, donor organizations, the private sector and others agencies.	X	Yes
Environment and natural resources management	The extent to which IFAD development interventions contribute to resilient livelihoods and ecosystems. The focus is on the use and management of the natural environment, including natural resources defined as raw materials used for socio-economic and cultural purposes, and ecosystems and biodiversity - with the goods and services they provide.	X	Yes
Adaptation to climate change	The contribution of the project to reducing the negative impacts of climate change through dedicated adaptation or risk reduction measures.	X	Yes

<i>Criteria</i>	<i>Definition</i> *	<i>Mandatory</i>	<i>To be rated</i>
<b>Overall project achievement</b>	This provides an overarching assessment of the intervention, drawing upon the analysis and ratings for rural poverty impact, relevance, effectiveness, efficiency, sustainability of benefits, gender equality and women's empowerment, innovation, scaling up, as well as environment and natural resources management, and adaptation to climate change.	X	Yes
<b>Performance of partners</b>			
• IFAD	This criterion assesses the contribution of partners to project design, execution, monitoring and reporting, supervision and implementation support, and evaluation. The performance of each partner will be assessed on an individual basis with a view to the partner's expected role and responsibility in the project life cycle.	X	Yes
• Government		X	Yes

\* These definitions build on the Organisation for Economic Co-operation and Development/Development Assistance Committee (OECD/DAC) Glossary of Key Terms in Evaluation and Results-Based Management; the Methodological Framework for Project Evaluation agreed with the Evaluation Committee in September 2003; the first edition of the Evaluation Manual discussed with the Evaluation Committee in December 2008; and further discussions with the Evaluation Committee in November 2010 on IOE's evaluation criteria and key questions.

## Rating comparison<sup>a</sup>

<i>Criteria</i>	<i>Programme Management Department (PMD) rating</i>	<i>IOE Project Completion Report Validation (PCRVR) rating</i>	<i>Net rating disconnect (PCRVR-PMD)</i>
<b>Rural poverty impact</b>	4	4	0
<b>Project performance</b>			
Relevance	5	4	-1
Effectiveness	4	4	0
Efficiency	4	3	-1
Sustainability of benefits	4	5	+1
<b>Project performance<sup>b</sup></b>	4.25	4	-0.25
<b>Other performance criteria</b>			
Gender equality and women's empowerment	4	4	0
Innovation	4	4	0
Scaling up	4	4	0
Environment and natural resources management	4	-	-
Adaptation to climate change	4	-	-
<b>Overall project achievement<sup>c</sup></b>	<b>4</b>	<b>4</b>	<b>0</b>
<b>Performance of partners<sup>d</sup></b>			
IFAD	4	4	0
Government	4	4	0
<b>Average net disconnect</b>			<b>-1/10 = -0.1</b>

<sup>a</sup> Rating scale: 1 = highly unsatisfactory; 2 = unsatisfactory; 3 = moderately unsatisfactory; 4 = moderately satisfactory; 5 = satisfactory; 6 = highly satisfactory; n.p. = not provided; n.a. = not applicable.

<sup>b</sup> Arithmetic average of ratings for relevance, effectiveness, efficiency and sustainability of benefits.

<sup>c</sup> This is not an average of ratings of individual evaluation criteria but an overarching assessment of the project, drawing upon the rating for relevance, effectiveness, efficiency, sustainability of benefits, rural poverty impact, gender, innovation and scaling up, environment and natural resources management, and adaptation to climate change.

<sup>d</sup> The rating for partners' performance is not a component of the overall project achievement rating.

### Ratings of the project completion report quality

	<i>PMD rating</i>	<i>IOE PCRVR rating</i>	<i>Net disconnect</i>
Scope		5	
Quality (methods, data, participatory process)		5	
Lessons		6	
Candour		5	
Overall rating of the project completion report		5	

Rating scale: 1 = highly unsatisfactory; 2 = unsatisfactory; 3 = moderately unsatisfactory; 4 = moderately satisfactory; 5 = satisfactory; 6 = highly satisfactory; n.p. = not provided; n.a. = not applicable.

## **Abbreviations and Acronyms**

GAFSP	Global Agriculture and Food Security Program
GDP	Gross Domestic Product
IFAD	International Fund for Agricultural Development
IOE	Independent Office of Evaluation of IFAD
IRR	Internal Rate of Return
MAF	Ministry of Agriculture and Fisheries
PCR	Project Completion Report
PMU	Project Management Unit
RIMS	IFAD's Results and Impact Measurement System
SoL I, II, III	Seeds of Life Project, Phases I, II and III
TLMSP	Timor-Leste Maize Storage Project



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