

Effective Seed Storage in Timor-Leste (ESS)
 Funded by USAID, Office for Foreign Disaster Assistance - OFDA

Annual Report
 October 2011 – September 2012



Photo: a woman carries a storage unit bought from the manufacturer in Ainaro.

Country Contact	Headquarter Contact	Project Summary	
<p>Joanna Walshe Country Director</p> <p>Address: Rua de Nu Laran, Bairro Dos Grilhos, Dili, Timor Leste. Ph. +670 3312726 Mob. +670 739 9045 Email. jwalshe@tl.mercycorps.org</p>	<p>Laura Bruno Senior Program Officer</p> <p>Address: 45 SW Ankeny, Portland, Oregon, USA Ph. +1(503) 896-5833 Fax. +1(503) 896-5011 Email. lbruno@mercycorps.org</p>	<p>Award No. AID-OFDA-G-11-00174</p> <p>Start Date 11 August 2011 End Date 11 February 2013 Report Date 31 October 2013 Total Award US\$ 247,501</p>	

Executive Summary

The majority of farmers in the target districts of Ainaro and Manufahi in Timor-Leste rely on subsistence agriculture for their livelihoods and are effectively caught in a poverty trap, with poor seed quality and poor storage fundamental to this problem. The continuous use of farm saved seed leads to reduced yields, and the lack of appropriate on-farm storage results in a high percentage of post-harvest seed loss. These problems, combined with a lack of market access, result in falling incomes for farmers over time. At present, effective storage for seed is not available for the majority of farmers in rural Timor-Leste. Based on the results of an in-depth preliminary assessment, Mercy Corps is implementing a seed storage program to introduce appropriate and effective post-harvest storage systems, primarily focusing on maize, the main staple crop in Timor-Leste. Through the Effective Seed Storage (ESS) program Mercy Corps is moving away from the distribution/handout model, and implementing a market-led approach to storage that has not been applied in Timor-Leste to-date.

The ESS program involves local manufacturers in efforts to increase access to improved storage systems, and combines this with capacity building for farmers and extension workers to sustainably link farmers with viable input and output markets. The program complements an existing 3.5 year, \$1.7 million European Commission (EC) funded Sustainable Crop Production, Utilisation, and Resource management through Capacity Enhancement in two districts of Timor-Leste (SECURE) program, implemented by Mercy Corps and partners in the two target districts. ESS is filling a critical gap in the ongoing program while benefiting from cost efficiencies and established relationships with farmers and the Ministry of Agriculture and Fisheries (MAF).

Performance Summary

Sector: Agriculture and Food Security	Objective: Sustainable post-harvest protection of seeds and grain stocks improve crop production and livelihoods in rural Timor-Leste			
Beneficiaries Targeted	27,503 IDPs: 0		Budget	\$247,501
Beneficiaries Reached	8,517 IDPs: 0	31% 0%	Amount Spent	\$96,478.06
Geographic Area (s)	Ainaro and Maufahi District - Timor Leste			
Sub- Sector: Seed System Security				
OFDA Indicator	Baseline	Target	Progress (Date)	Last Day of Report Period
1. Projected increase in number of months of food self-sufficiency due to seed systems activities/ agricultural inputs for beneficiary households	Number of months of food sufficiency is 8.1 months	At least 3 months	0	December 31, 2011
2. Number people benefiting from seeds systems/agricultural inputs activities, by sex	0	1,560	812	September 30, 2012

Mercy Corps Indicators				
2.1 # of improved storage designs	0	3	3	February 29, 2012
2.2 # of local storage manufacturers trained	0	4	2	July 31, 2012
2.3 # of trainings	0	52	34	July 31, 2012
2.4 # of early adopters	0	1,560	582	September 30, 2012
2.5 # of additional farmers with access to storage solutions	0	1,560	230	September 30, 2012
2.6 % decrease in seed storage losses amongst pilot farmers	0%	50% reduction in seed loss	0	December 30, 2011
2.7 # additional months maize is available in the household as a result of improved storage	0	3	0	December 30, 2011
2.8 # of farmers purchasing storage for seed	0	3,120	812	September 30, 2012
2.9 % increase in grain / seed sold by farmers as a result of new storage solutions	0	30%	0	December 30, 2011
3. # of extension workers trained in both districts	0	26	37	March 21-22, 2012

Sector Summary (by activity)

Activity 1: Seed system is analyzed, improved seed storage solutions are identified and designed and a sustainable market-based solution is identified through an in-depth participatory study

- *Carry out in-depth consultative research*

A consultative study on seeds storage was conducted and involved various relevant stakeholders, including government officials, NGOs, relevant projects as well as target farmers. An external international expert on seed storage from Illinois University, Bruce Litchfield, PhD., was in country from 1 to 11 February 2012 to assess seed storage practices, design options for farm storage models, and assess the seed market system. Exploration of seed storage in the two target districts of Manufahi and Ainaro confirmed that there are opportunities to enhance storage, many at low cost and with significant enhancement of seed quality and preservation. Farmers visited in the target districts practice seed management based on long-standing traditions and methods passed from ancestors that have served them with some degree of success. However, farmers do not yet seem to fully understand the guiding principles of seed preservation nor do they have the resources and tools for enhanced postharvest seed drying and storage that will reduce losses and maintain seed viability. It is expected that seed is dried too slowly and to a final moisture content that is not low enough for effective storage. Further, seed is not

kept in an oxygen free, hermetic (airtight) environment that is known to suppress weevil activity. Likewise, seed is not stored in rat resistant and fire resistant containers, endangering the future supply of seed stock. Also, most seed is not selected; identity preserved, and stored separate from food grain, causing some farm families to eat their seed supply when food supplies are low.

It is recommended that (a) seed to be used for planting be selected and separated from the grain that will be used as food, (b) seed be dried quickly and to 12-13% moisture content, preferably in an enclosed environment, and (c) seed be stored in airtight, rat and fire resistant and durable containers. Several alternatives for low cost and regionally appropriate storage exist, and they are discussed in the report. In general they can be categorized into two approaches: (i) use a storage system combining a primary outer container and with secondary airtight inner container holding the seed; and (ii) use a storage system with a single container that has all the desired attributes, such as glass jars, jugs, or bottles (e.g., used wine or food containers) with airtight lid, airtight metal or plastic drum. In addition to that the study has identified the ‘drum culture’ of farmer in Timor where the use of used oil drums is common and embraced as influenced by the Portuguese during the colonial era. However, it is also understood that available used oil drums are limited in term of size and availability and has for some extent discouraged farmer to separate their seed from the grain for food¹. The study also confirms that the fundamental barrier to effective storage solutions in Timor-Leste is lack of availability and accessibility.

The challenge for the project team is therefore to find a storage unit that (i) conveys desired attributes, (ii) encourages farmers to distinguish that the stored *fini* is a high quality and high value product to be used as seed rather than food, (iii) embraces the culture of the drum, and (iv) ensures that the project will be able to develop the market system for identified solution(s), to ensure its availability and accessibility for broader target farmers. The study has identified and recommended the use of a polymer drum, plastic water bottle or bag inside a metal or wooden container, and plastic tote. In addition, custom manufactured silos as well as used glass bottles/jars and metal biscuit containers were also suggested.

As each option carries pros and cons, the project team decided to conduct further in-depth exploration to assess the market aspect of the proposed solutions and found that: (i) polymer drums and plastic totes are imported products and available in Dili, the capital city; (ii) custom manufactured silos can be produced locally (at the district level) but the business model of the manufacturers is very donor-dependent - manufacturers only produce silos based on orders from a donor agency and materials are imported and provided directly by the donor and thus, local silo production is unsustainable. In addition, current designs are non-airtight, but improvement in design is possible; (iii) wooden containers are unavailable but local carpenters will be able to produce them. In short, the local market (community level) for these products exists but requires effort on the part of the project to introduce them, develop a supply chain, and at the same time promote the demand side. Following this, the team decided to develop prototypes of improved quality silos (to be airtight and smaller as needed for seed storage) and wooden containers. The project then found that high quality wooden containers would be prohibitively expensive and thus decided to drop them from the option lists for further exploration.

- *Identify and facilitate sustainable market-based solutions*

¹ In the local language, Tetum, the word for seed is *fini* and there’s no specific term for grain. In most cases farmers treat both as one commodity.

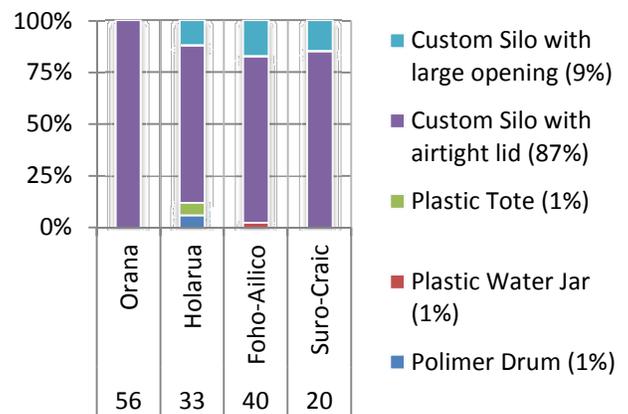
Due to the poor condition of both economic and physical infrastructures, developing a supply chain of various products will be challenging and the project therefore needs to strategically select and focus on the storage solution with the highest demand. In April 2012, the project conducted a series of consultation meetings with 4 communities (in Orana, Holarua, Foho-Ailico and Suro-Craic) to select storage units to be the main focus of the project. From a total number of 149 participant farmers, 87% selected metal silos with airtight lids, and 9% selected metal silos with large openings, while the rest selected other storage units.



It is understood that custom manufactured silos were prioritized by farmers because they hold desired attributes and embraces the ‘drum culture’ of Timorese farmers. While polymer drums were initially ‘predicted’ to be one of the main desired choices, they were not selected by farmers because a non-metal solution was perceived to be insufficiently rat resistant and fire resistant.

Although the cost of metal silos was relatively competitive in comparison with other options, the project team believed costs could be further reduced by using an alternative metal to that used in existing manufacturing. The project team conducted rapid consultations with suppliers of metal sheeting and identified less expensive material believed to carry similar or, perhaps slightly lower quality than the initial metal sheeting used but still has the attributes needed for effective seed storage. The second prototyping process included the use of cheaper metal sheeting and different PVC caps. Further involvement of the manufacturer to develop linkages between themselves and material suppliers was also encouraged. The project was aiming for solid metal storage units that cost \$45 to \$60 but have come up with a much lower cost per unit of \$25 to \$35, depending on size.

The key to the program’s sustainability lies with several factors, including availability of the product in the market, product affordability and quality. To achieve this, in tandem with the efforts to convince the silo manufacturers to transform their current business model into a more sustainable one, the program has identified and convinced input suppliers to ensure that cheaper materials of acceptable quality (in particular appropriate metal sheeting and PVC lids) are available in country. In addition, the program utilized a voucher system to facilitate demand creation among resource poor farmers through early adopters – those who willing to invest and try the promoted storage solution. Through the voucher



A consultative meeting with farmers to identify preferable storage unit (up) and results from the consultation across target communities (down)

system a subsidy² was given to promote direct ‘transactional interaction’ between the producers and the buyers. The detail is presented below (under Activity 2).

- *Dissemination of findings on solutions and designs*

Three workshops, two in target districts and one at the national level, were initially planned to present the study report immediately after results became available but the project team has decided to postpone the workshops until project successes can be documented (to include learning/experience from the users/farmers). However, the project has printed out 50 exemplars of the report and distributed to relevant government bodies, UN agencies, International and Local NGOs, etc. In addition to that, the report was also presented at several events including: INGOs and MAF learning workshop in May 2012.

Activity 2: Top storage solutions are piloted and farmers and extension workers are educated on food security and economic benefits

- *Capacity building to improved-storage manufacturers and facilitate access to input supplies*

Two local manufacturers were selected and trained to produce improved seed storage units for supported farmers. After the preference for the custom metal silo with airtight lid was made clear, the ESS team identified inactive manufacturers, originally trained and supported by the Food and Agriculture Organization of the United Nations (FAO) to produce silos between 2008 and 2010. They were invited to partake in a sealed tender quotation process to develop the market for seed storage silos in the target districts. It was made clear to the tender participants that the project will use a voucher system, and that there will be further negotiation on this following the open tender session. Four manufacturers submitted tender documents, from which the project selected two district-based manufacturers.

From a market development perspective it would be better to have more market players offering similar or complementary products in the market, creating a competitive environment for providers³. However, as with all inputs in the Timor-Leste market, available effective seed storage units are nearly non-existent (or if they exist, they are weak)⁴. On the other hand, many rural farmers are used to operating in a subsistence system which relies on traditional production techniques and they have little experience with purchasing inputs. Because of this, stimulating both supply and demand is an essential part of the ESS project. The decision to select just two manufacturers at this stage of the project (one per target area) was made for the following reasons: (i) there are just two FAO-trained silo makers in the target districts and introducing the manufacturing process to others would require significant training; (ii) to negotiate the lowest price with bidders and select the cheapest option (the unsuccessful bidders would have charged higher prices in order to cover the cost of transporting silos from their production sites in Dili to the target districts⁵, if selected; (iii) by limiting the number of supported manufacturers, the project can focus on developing and testing the supply-side supports to further future supply, and to deepen understanding of the demand side factors including farmers’ ability to pay, etc. Lastly, the

² The value of the voucher is \$20, covering 40% – 75% of total price of the unit (depending on the size of the silo).

³ Competitive environment is believed to be an effective way to reduce cost and enhance innovation.

⁴ This is also the reason why do we focus only on the silo.

⁵ Transporting produced silos is much more expensive than transporting materials as silos are bulky products.

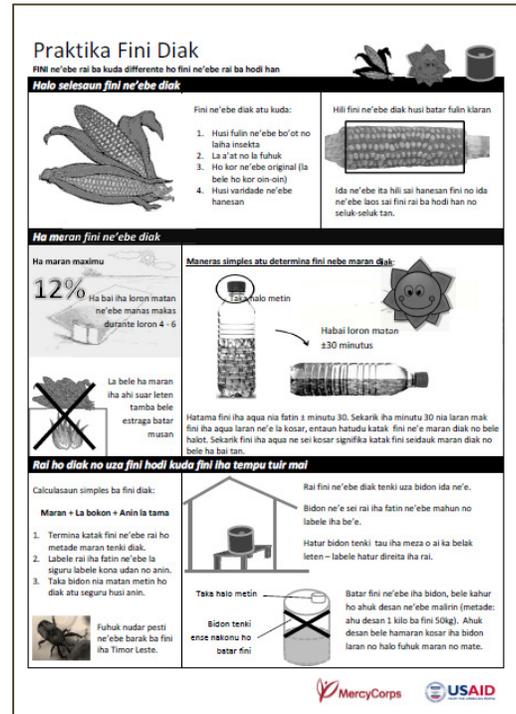
project has calculated that the two selected manufacturers will have capacity to support the targeted early adopter farmers.

Arnaldo da Silva from Same in Manufahi was selected to produce silos for farmers in Manufahi and Mario de Jesus from Cassa in Ainaro was selected to produce silos for farmers in Ainaro. The ESS team trained the selected manufacturers on the new model; ensuring units will be airtight and possess other desired attributes. In May and June 2012, the project facilitated several informal B2B (business to business) meetings between manufacturers and suppliers of materials in Dili – linking them and ensuring a sustainable supply of materials. The B2B meetings have proven an effective way to establish a working business relationship between rural manufacturers and input suppliers in Dili resulting in required materials for manufacturers being more available and easily accessible than in the past.

- *Conduct training for selected (early adopter) farmers and extension workers on good post-harvest handling and seeds selection*

In tandem with making the improved seed storage units accessible, the program is working with government extension workers to develop and disseminate simple messaging on improving post-harvest management practices. The program is also working to embed the delivery of these simple techniques as part of the silo manufacturers’ services.

It is understood that recognizing traditional practices and conveying basic messaging for improvements based on those existing practices are key to successful behavior change communications (BCC). For that reason a training module and brochure have been developed in consultation with 29 extension workers in the target districts and in partnership with the local artist group, Arte Moris. The locally appropriate, illustrated module and brochure are used by the extension workers, as well as the project officer, to provide training for farmers. A two-day consultation workshop with extension workers was conducted in Same, Manufahi district on 21-22 March 2012. A total number of 29 extension workers (2 female) plus 10 local NGO partners staff (no females) actively involved in the workshop. The workshop outcome included action plans for the training of farmers in each village.



Sample of BCC material (top) and sticking the BCC material onto the storage unit (down)

The key BCC messages are based on the acknowledgement that saving seeds of food crops by farmers is a tradition practiced across the country. Timorese farmers have traditionally selected the biggest maize cobs to dry and hang on trees or rooftops or to store them in sacks (or other ineffective storage methods) as saved seeds. The simple techniques that were introduced by the ESS program were designed based on these practices and those existing good practices were encouraged to continue while simple messaging was used to improve less effective techniques. A good example of this is the project encouraging farmers to continue to use big maize cobs (as they already practice), while at the same time delivering the message that the best seeds are from big cobs growing the middle of the farm plot⁶ and the absolute best seeds are located in the middle of that big, healthy cob. Another example of improved messaging is that of using a water bottle or mouth-biting technique to check if the seed is ready to store⁷. In partnership with government extension workers and local NGO partners, the project staff facilitated post-harvest training for the farmers. The two-day training activities were designed to combine theoretical and practical/experiential techniques adopting adult learning principles.

Number of participant farmers on the supported post-harvest training

Ainara	Female	Male	Total
Mau-Nuno	16	29	45
Soru-Craik	19	51	70
Cassa	34	48	82
Leolima	36	105	141
Foho Ailico	45	61	106
Manufahi			
Daisua	32	70	102
Holo Rua	74	131	205
Rotuto	5	7	12
Grotu	16	55	71
Orana	8	70	78
Mindelo	67	38	105
	352	665	1,017

The training was also used to promote a variety of effective seed storage solutions and to disseminate project plans to support farmers’ access to the selected storage unit. During this reporting period, a total number of 1,017 farmers (34.6% female) have enthusiastically participated in trainings across 51 aldeas (of 55 targeted) in 11 sucos (of 11 targeted).

- Facilitate access to improved storage for early adopters

The voucher system was selected to support farmer access to selected storage units. It is believed that this method is an effective way to initiate direct ‘transactional interaction’ between farmers (as consumers) and producers (as suppliers). The project has been distributing a voucher valued at \$20 to target farmers that can be redeemed for a storage unit. The farmer will then be



The voucher (top) and distribution of vouchers to early adopters by a selection team (bottom)

⁶ If located in the middle of the plot, the likelihood of cross pollination with other varieties from the surrounding plots is minimized.

⁷ As pointed out by Bruce Litchfield’s report that drying is one of the main issues besides the storage.

responsible to cover the difference between the actual price and the value of the voucher, as the price of the unit is more than the value of the distributed voucher. Rather than directly distributing the units or providing full-value vouchers, it is expected this method, which gives exposure to the unit's actual cost, will enhance farmers' 'sense of ownership' of the product. It is expected that requiring this individual investment will cause farmers to value the silo more highly, and further increase their awareness of the importance of high quality seeds.

However, the voucher only targets selected early adopter farmers; other farmers who want the silos will have to pay full price. The project team formed selection teams within each suco consisting of suco or aldeia chiefs, government extension workers, and project and partner staff. The selection criteria for targeting early adopters included (i) high level of vulnerability and/or food insecurity; (ii) willingness to participate in post-harvest training and other project activities; (iii) willingness to share learning and data with the project and other farmers; (iv) not currently served by other organizations or government on similar activities; and other criteria as deemed appropriate by each selection committee. Up to the end of September 2012, a total of 1,560 early adopters across the target sucos were selected to receive vouchers. 582 vouchers were distributed to and redeemed by the target farmers. The remaining vouchers will be distributed before the end of December 2012.



A training session facilitated by trained government extension worker

- *Support and monitor extension workers and training participants outreach*

The program seeks to enhance the abilities of 3,120 farmers, supported through the outreach of government extension workers and early adopter farmers. By the end of the program, farmer beneficiaries will be aware of the importance of good seed selection and storage practices, and will have developed their knowledge and technical skills on farming and storage. These outcomes will place farmers in a strong position to increase their production and thereby improve their food security and incomes.

The project team always encourages government extension workers to participate and co-facilitate in the trainings facilitated by the project. It is expected that they will continue to do the same in other areas and/or with other groups. Out of 51 trainings for farmers so far, 45% of them were co-facilitated by the trained extension workers⁸. Outreach of training participants (early adopter farmers) will be done through facilitating cross-learning or farmer days in each target suco during the next reporting period.

Activity 3: Current informal seed market system is strengthened, household income is improved and sustainable supply of quality seeds is facilitated

⁸ This is quite a substantial percentage as, based on Mercy Corps' prior experiences, engaging government extension workers in INGO programs in Timor-Leste is always difficult.

- *Identification and training for existing informal seed multipliers on seed selection and storage techniques*
- *Actively coordinate with other initiatives to facilitate market access opportunities*

In the context of Timor-Leste, strengthening informal seed systems is a highly cost-effective method of ensuring sustainable availability and affordability of seed to farmers. Farmers have always engaged in multiplying their seeds and seeking additional seeds through informal seed systems (local market, neighbors, family, etc.) when their own stocks run low. However, 96% of farmers rely on traditional varieties and there is a lack of consistency in price and quality.



Francisco Tilman, one of Mercy Corps' trained seed multipliers, selling improved quality of maize seeds (*sele*) to his neighborhood in Holarua, Manufahi

Through the SECURE program (ESS complementing program), Mercy Corps has introduced improved quality of seeds (maize, rice and peanuts) through an informal seed multiplication program in partnership with the government's Seed of Life program⁹. Mercy Corps has given priority to 22 selected seed multipliers to also be early adopters for the ESS project, including training and facilitating market access opportunities, especially targeting their neighborhood areas. Currently Mercy Corps is facilitating a voucher program to increase access of 1,700 farmers to the improved seeds that were multiplied by the selected multipliers in the target areas.

In addition, the program has identified 23 informal seed merchants in the district/sub-district markets across target areas. Training and access to the seed storage units will be facilitated during the next reporting period.

Activity 4: Improved Storage is promoted to enable widespread access to storage solutions

- *Support widespread promotion of improved storage solutions*

During the reporting period, the focus of the project is still assisting the manufacturers to meet the early adopter demand. Therefore, widespread promotion is still being carried out by endorsing government extension workers and supporting early adopter farmers to increase awareness of other farmers by demonstrating the benefits of utilizing improved storage processes. To support this demonstration effect, the program has helped the manufacturers develop a promotional leaflet that describes the benefits of improved storage units. In addition, the project has encouraged the manufacturers to bring the storage units to a weekly market day in several sub-district and district markets to promote it.

⁹ The Seed of Life program aims to test and introduce improved variety of five main food crops in Timor-Leste, including maize, rice, peanuts, sweet potatoes and cassava. <http://seedsoflifetimor.org/>

Mercy Corps has presented the unit at several meetings/workshop, including during the INGOs and MAF learning workshop, Seed of Life and INGOs coordination meeting, and the INGO food security working group meeting, etc. Facilitation of farmer days in target areas and promotional activities through local media (radio or TV) will be conducted during the next reporting period.



One of the manufacturers is promoting the storage during a market day in Hatu-Udo, Ainaro

Cross-Cutting Themes

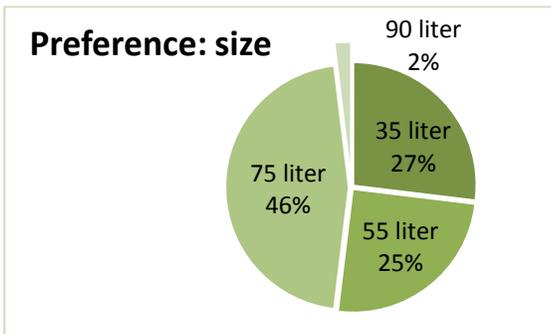
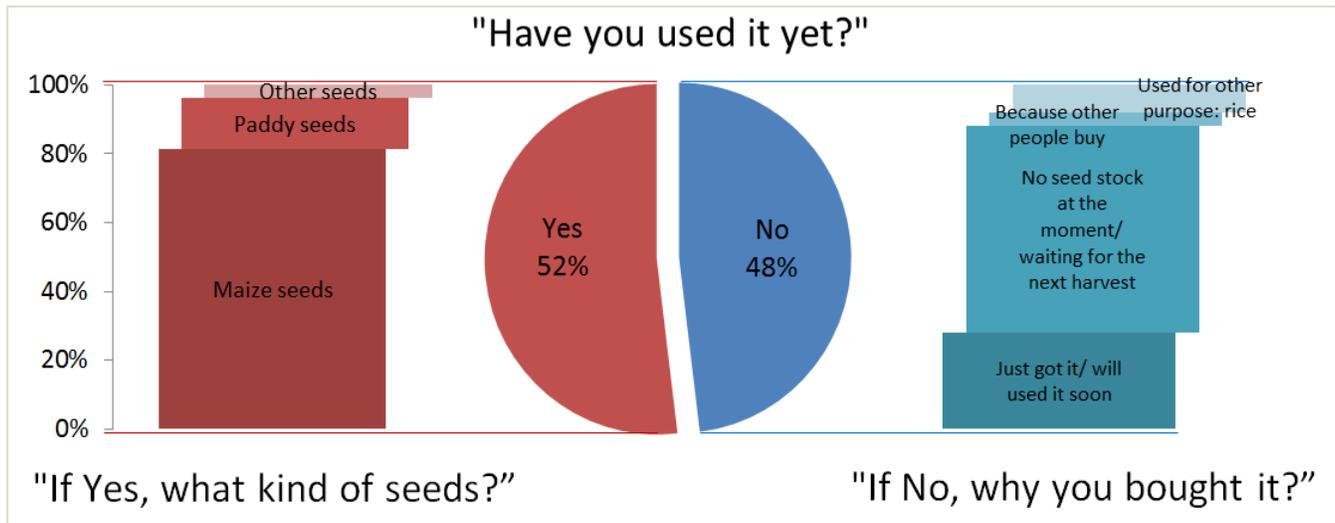
N/A

Monitoring and Evaluation

No substantial M&E activity took place during this reporting period, except regular monitoring visits by the program manager and project coordinator to oversee/monitor the project implementation. In June 2012, there was a visit from the Regional Advisor of OFDA in Manufahi district to monitor project performance and provide feedback. Following that visit, the US Ambassador for Timor-Leste visited the project site to discuss the project with target farmers and to hand over the first unit to the first recipient farmer.

Furthermore, during the preparation of this report, the project team was able to conduct a rapid assessment with 52 farmers who accessed the supported storage units. The survey was done to check whether the unit is being used and to provide feedback for the manufacturers to improve their products and services. The following is a summary of the survey results.

More than half of respondents have used the storage and they are mostly using it to store maize seeds. Meanwhile, 48% respondents have not been able to use it mainly (60%) because currently they don't have seed stock and will use it after the next harvest (this month farmers in some areas have just started the main maize growing season). 28% of farmers who have not yet used the unit said they had just acquired it and will be using it soon.



8% of respondents would like a different color than what is available now (including white and green color). 12% would like a larger PVC lid opening(s). 8% of respondents feel that the price is still too high. Otherwise they are happy with the unit.

Coordination

The Dili based Project Coordinator and Program Manager make frequent trips to the districts to coordinate activities and provide support to local partners and meetings with stakeholders. In addition, meetings were also conducted/ attended at the national level, in particular with the Ministry of Agriculture and Fisheries (MAF) to coordinate program activities.

2011

- A meeting was held with the National Director of Crops and the National Director of Rural Development and Extension Services in MAF. Both National Directors were welcomed to Mercy Corps as development partners implementing the ESS program in Timor Leste. Mercy Corps was encouraged to work closely with the MAF Director in Ainaro and Manufahi district. In addition, they proposed Mercy Corps work closely with the head of extension workers to develop planned activities ensuring sustainable access of farmers to knowledge through government extension services. They outlined that extension workers are lacking experience and skills and were hopeful that Mercy Corps could help build their capacity.
- A meeting was held with district and sub district administrators in Ainaro and Manufahi. Both district administrators are fully supportive of the program and will encourage MAF director and community leaders and DFSC (District Food Security Committees) as necessary to work with Mercy

Corps Timor Leste in order to increase the food security of villages at the sub district and district level.

- Other stakeholder meetings were held: the Mercy Corps team is part of the food security working group which meets on a monthly basis. This group consists of the NGOs currently implementing food security or related programs in the country. In addition Mercy Corps also presented ESS to the MAF and development partners' coordination meeting in November 2011. In order to coordinate activities and encourage program collaboration, Mercy Corps has also met with other organizations implementing agriculture and rural development programs such as GIZ (implementing the Rural Development Program (RDP) 2), Landell Mills (implementing RDP 3 in Manufahi), CRS, Oxfam and others.

2012

- On March 6 and 21, 2012, the Program Coordinator and Program Officer attended the second/advanced training on informal seed multiplication hosted by the Ministry of Agriculture and Fisheries (MAF)'s Seed of Life (SOL) program. The training included topics on seed drying and storage and its technology, yield prediction through simple random sampling methods, and sustaining informal seed multiplication.
- On March 27, 2012 the Program Coordinator attended a coordination meeting with MAF, various NGOs and UN Agencies on the Global Food Security Cluster (FSC) for Timor Leste. The FSC is an initiative to improve preparedness of the country for any humanitarian crisis that could lead to a food insecurity incident by developing a contingency plan for responses and capturing commitments from various stakeholders.
- Regular coordination meetings with the INGO Food Security Working Group were held during this reporting period including a sharing workshop with the Ministry of Agriculture and Fisheries (MAF) and the working group on May 23, 2012 in Dili.
- The Seeds of Life – INGOs coordination workshop/meeting was held on 11 September 2012 to discuss the achievements of informal seed multiplication and planning for the next main planting season. Following this, on 13 September 2012 another INGO Food Security Working Group meeting was conducted to share learning and coordinate activities for the next quarter. On both occasions, Mercy Corps presented the achievements of ESS to date and used the opportunity to promote the storage unit. Several INGOs have expressed interest in obtaining samples of the products to be promoted in their project locations.

Conclusion

The project achievements as presented above have been made possible by the substantial contributions of our local NGO partners. In addition, the willingness of local manufacturers and input suppliers to participate/collaborate in the project is invaluable and is the key for the success of the project.

In general, program activities are running according to the work plan, and progress has been made in all key activities. The project team has focused efforts during the first year of the project to identify and develop market solutions and strengthen the capacity of local manufacturers and link them with the input suppliers which were lacking before. We have found that once the 'business model' is developed and installed, it can be rolled out quickly.

The project team has learned the importance of understanding local practices and cultures and the need to take these factors into account when introducing new products and/or technology. The preference of the majority of farmers for the locally made and customized silo to some extent reflects the ‘drum culture’ of Timorese farmers. Because of this, the project has developed simple illustrated training materials (or behavioural change communication materials to be precise) based on local practices and has opted not to inject too many new practices.

Challenges:

- Lack of basic infrastructure (in particular roads and public transportation) remains the primary challenge both for the project staff and the manufacturers to work with farmers located in off-grid areas. Each manufacturer has made an effort to produce the silos in several different locations¹⁰ to make them accessible to the target farmers.
- Staff turn-over: on August 2012, the Project Coordinator resigned from the post to take a new role with another organization. Mercy Corps made sure that a replacement was hired before the departure of the former Coordinator, allowing time for hand over process.
- It is likely that the target of 1,560 early adopter farmers can be reached before the end of the program. However, with 6 months of program implementation remaining, it seems that the target of an additional 1,560 farmers’ (outside the target early adopters) access to the promoted storage unit will not be reached during the project timeframe. The team has realized that it will take more time than originally anticipated for the other farmers to ‘adopt’ the promoted practices and the storage solution from the early adopters. The team has observed that some farmers are reluctant to invest in new storage units and prefer to ‘wait and see’ the impact of the units on early adopters before trying for themselves, in particular if no subsidy is provided. It is predicted that there will only be around 700-800 additional farmers who will buy the storage units without any subsidy by February 2013. For that reason, the project is proposing to use the expected unspent budget of \$15,600¹¹ from the budget line item of “Subsidized Distribution for Pilot Test’ to reach broader target early adopters facilitating an additional 780 farmers from the surrounding current target sucos. This will help the project to achieve the overall target number of beneficiaries by the end of project.

Success Story

Voices from the field (1): a silo manufacturer is ready for his new business model



¹⁰ Transporting bulky silos is far more expensive than transporting the inputs/materials particularly when there is no passable road.

¹¹ There is \$30 budget available to subsidize each early adopter, but the project has reduced the subsidy value to \$20 per early adopter due to reduced cost of the storage unit.

Arnaldo Da Silva, a father of three children, currently resides in Betano, Same, Manufahi district, and is a farmer turned FAO-supported silo manufacturer in the district. When asked when he started to manufacture silos, he confirmed, *“I was trained by FAO in 2009 and produced silos for grain storage from then up to 2011 when the project finished.”*

Similar to other silo manufacturers in the country, Arnaldo’s production has been totally dependent on orders from donors or INGOs providing materials for him to produce silos for distribution to farmers. He added, *“Sometimes I have to say ‘sorry’ to farmers who come here and want to buy a silo, but I could not sell it as the [produced] silo was designated for farmers supported by the INGO that provided the materials.”*

But this is about to change; through the ESS project, Mercy Corps links Arnaldo’s business with input suppliers in Dili, creating an independent and sustainable production model. Arnaldo further said, *“I was supposed to do this from the start, so that I have my own business and no need to say sorry to farmers [who were rejected]. But I am ready to change now.”*

Voices from the field (2): positive feedbacks from users

When asked why he is interested in buying a silo for seed storage, Alberto da Costa from Carbulau in Manufahi gave a straightforward answer: *“we need to protect it from weevils, chicken, mold and rats”*. In addition, he mentioned that farmers in Timor-Leste have learned from their ancestors that they need to save seeds for the next planting season. *“It is one of our precious savings for us to [be able to] produce foods [next planting season]”*, he added. Alberto is one of the first farmers to access the storage units in Manufahi district. Augusta de Jesus Marcal, from the neighboring community of Fatuco, added that the unit will help households in distinguishing seeds from grain, increasing their resiliency against future shocks. *“We’ll put our seeds there [in the unit] and put it in a safe place so it will not be mixed up [with the grain for foods],”* she said proudly.



The US Ambassador of TL handed over the unit to Alberto, one of the first recipient farmers

Voices from the field (3): blacksmith from another district would like to participate

In September 2012, Mercy Corps’ Agriculture/Food Security Program Manager received a phone call from Mr. Manuel Gaspar da Costa, a FAO-trained silo manufacturer from Baucau. He had heard that his companion in Ainaro had been supported by Mercy Corps to develop a more sustainable business model. He was eager to get similar support and expressed his interest in participating in the expansion of the project to the eastern part of the country.

Annex:

No annex