Effective Seed Storage in Timor-Leste (ESS)

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Quarterly Report

January 1, 2015 – March 31, 2015

Insert: A SILC Group in Maununo, Ainaro

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Program Summary

The majority of farmers in the target districts of rural Timor-Leste rely on subsistence agriculture for their livelihoods. Unfortunately, the lack of appropriate on-farm storage combined with poor seed quality often results in a high percentage of post-harvest seed loss. These factors, in conjunction with other challenges such as climate change, low soil fertility, poor access to water, low levels of livelihood diversification, and the dominance of traditional farming practices, put seed system security at increased risk over time. To address these problems, Mercy Corps is implementing the USAID/OFDA funded Effective Seed Storage (ESS) in Timor-Leste Program since August 2011. The program is designed to be sustainable through an innovative market-based approach to increase access to improved storage systems linked with capacity building of farmers and extension workers, and through supporting activities to connect farmers with viable input and output markets. The program has been successfully developing a market system for a metal-based seed storage system that is customized and locally manufactured.

Based on the success of the program and the continued need for seed system security throughout rural Timor-Leste, Mercy Corps, in partnership with Catholic Relief Services (CRS) and five local NGOs, implemented a nation-wide expansion of the ESS program. The expansion targets neighboring districts/sub-districts of current target areas that can be easily scaled-up through the program's current manufacturers. Starting from May 2014, the program has incorporated a Savings and Internal Lending Communities (SILC) component with a set of existing ESS beneficiaries to expand access to credit and promote a culture of savings among poor farming households. While introducing a seed storage system has proven to effectively improve food self-sufficiency, SILC membership provides savings-led financial services to communities that have little or no access to formal financial services that contribute to strengthening resilience among vulnerable families.

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	Original: 27,503 IDPs: 0	Expansion: 240,000 (no IDPs)	Budget: US $2,522,499	
Beneficiaries Reached	Original: 34,993[1] IDPs: 0	Expansion: 263,971[2]	Amount Spent: US$2,124,457	
Geographic Area (s)	At least 10 out of 13 districts of Timor-Leste			
Sub- Sector: Seed System Security				
OFDA Indicator	*Baseline*	*Target*	*Progress (To Date)*	*End of reporting period*
Projected increase in number of months of food self-sufficiency due to seed systems activities/ agricultural inputs for beneficiary households	2.5 month[3]	30% increase	84% (average 2.1 months increase)	March 2015
Number of people benefiting	0	240,000	263,971[4]	March

[1] Calculated from number of households (HHs) buying the seed storage system plus additional farmers/HHs trained in post-harvest training times average number of HH members in the target areas.

[2] See footnote 4

[3] Recalculated from the baseline data during the endline, especially to make adjustment from number of food security months into food self-sufficiency months

[4] Calculated from total household accessed the storage system and/or accessed to promoted good practices (BCC) multiplied by average number of household members. It is recognized that HHs who accessed the promoted seed storage systems may overlapped with those who trained/exposed to the promoted good practices. As the number of HHs who has

from seed systems/agricultural inputs activities, by sex			(47% female)	2015
Additional Indicators[5]				
Percentage of beneficiaries reporting decreased post-harvest losses for seeds	93% for improved variety[6] growers report losses and 95% report losses of other varieties during storage	80% reduction from the baseline	87.7% for maize; 80.3% for rice; and 73.7% for beans	March 2015
Increase in availability of quality seed during planting season	39% of improved variety seeds are lost during storage and 45% of other varieties	80% reduction from the baseline	40.5% reduction (improved seeds) and 23.9% (local variety)	March 2015
Number of farmers with access to BCC materials/training	0	40,000	31,252[7] through training; 3,000 reached by radio program; and an additional of 6,000 from TV shows[8] – 34% female	March 2015
Percentage of farmers adopting improved technique(s)	0	80%	56.8% for seed selection; 59.6% (drying); 88.5% (storage)	March 2015
Number of farmers with access to improved seed storage system, by sex	0	40,000 (silos and/or GrainPro bags)	35,703 (silos) and 9,936 (Grain Pro bags)[9] – 26% female	March 2015

Sector: Economic Recovery and Market Systems	**Objective:** Increased resilience to external shocks through enhanced financial capacity among target communities			
Beneficiaries Targeted	Number of People Targeted: 1,000 *(note the majority of these will likely overlap with existing program beneficiaries)* Number of IDPs Targeted: N/A			
Beneficiaries Reached	0			
Geographic Area (s)	Ainaro, Manufahi, and Baucau			
Sub- Sector: Microfinance				
OFDA Indicator	*Baseline*	*Target*	*Progress (to date)*	*End of reporting period*
Number of people, by sex, or MSEs newly receiving financial services due to USAID/OFDA support	0	1,000	777 (52% female)	March 2015
Percentage of financial service accounts/groups supported by USAID/OFDA that are functioning properly	0	100% (target 50 groups to be formed)	92% (46 groups)	March 2015

accessed BCC is bigger than those who actually accessed the introduced seed storage systems (after putting into account that farmers with silos and GrainPro bags are likely overlapped), and to avoid double counting of reached beneficiaries; thus this indicator is only using data of HHs who have accessed the BCC

[5] Indicators have been adjusted based on the expansion proposal

[6] This refers to Sele, the introduced maize variety by the government Seeds of Life program

[7] Calculated from number of households (HHs) trained up to previous Quarterly Reporting period (24,993 farmers) plus trained farmers during this reporting period (6,259 farmers)

[8] Additional farmers benefited from the awareness campaign activities via Radio (in 10 districts) and TV (nationwide 13 districts). This number is a very moderate projection based on report produced by the radio and TV stations contracted to deliver the activity. Any potential overlapped in term of audiences has been put into account also.

[9] Farmers who accessed silos and Grain Pro bags are likely overlapped.

Total USD amount channeled into the program area through sub-sector activities	0	0	0	March 2015

Sector Summary (Activities)

This quarterly report covers the ESS program implementation period from January 1 through March 31, 2015.

This period covers the final three months of the phase II (including a two months no cost extension (NCE)) and includes activities to conduct the final evaluation and to continue SILC related activities. In addition to the evaluation carried by an external consultant, the program conducted a DBC (designing for behavior change) analysis on three behaviors that were promoted during the program implementation. They included: behaviors related to drying practice, seed selection process, and storage of seeds.

A. Improved Seed Storage

During this reporting period, there were no post-harvest training and voucher distribution activities. The program staff focused more on reviewing behavior change communication (BCC) and training materials based on documented learning and feedback from stakeholders (e.g. farmers, extension officers and blacksmiths are among others). DBC framework was utilized as an analysis tool to improve the BCC and training materials. DBC is a process to help program designers make key program decisions that will enable the designer to develop a comprehensive and effective behavior change (BC) strategy, resulting in increased adoption of positive behaviors among program participants.

To identify BC determinants, a barrier analysis was conducted by comparing the responses of 'doers' – those who practice the behavior - versus 'non-doers' for a certain behavior. A total of 90 respondents were interviewed for each behavior (45 doers, 45 non-doers). The analysis focused on three specific behaviors related to (i) seed storage, (ii) seed selection, and (iii) seed drying. The analysis is ongoing and will be finalized and reported on in the next quarterly report. These analyses will help program to document learning to improve the quality of program implementation for the next phase.

B. Savings and Internal Lending Communities (SILC)

The ESS team continued to deliver SILC activities in the field throughout the entire quarter (and the NCE period). Mercy Corps and CRS continued to provide technical assistance to nine Field Agents to form and to provide capacity building to SILC members in four target districts. During this quarter 15 SILC groups were formed by the Field Agents. By the end of March 2015, the program formed and trained 46 SILC groups.

An additional 207 new members joined SILC, bringing the total number of farmers involved in the SILC activities to 777 members – 52% women. This number is around 30% less than the target of 1,000 members organized in 50 groups by End of Phase II. These targets will be rolled over into Phase III of ESS. The main reason for the unmet target is because the SILC intervention started very late. It started about five months late due to delays at the kick start. In addition, since November last year, the security situation in Bacau district (especially in Subdistrict of Laga and the main project areas of Caritas Baucau) has been 'unfavorable' for project activities due to some disturbances by a political movement/group in that area. To mitigate this situation, the team has closely coordinated with local authorities to monitor the situation from time to time, as well as being flexible in terms of delivery of activities in this area. It is projected that the situation will be improving during the next quarter; but if the situation gets worse, the program has the option to move the target areas into other safer areas.

During this period, the program team also started to select field agents to become Private Service Providers (PSPs). All nine field agents expressed their interest to become a PSP. In order to become a PSP, they have to pass an interview and test by the ESS program before becoming certified and supported as independent PSP. This selection process and follow-up support will continue during next reporting period.

C. Phase II Final Evaluation

From January 17 until February 24, an independent consultant was hired to carry out the final evaluation of ESS Phase II. The objective of the evaluation was to collect data and information and analyze it to evaluate the ESS program achievements. The evaluation also documents learning from the SILC component of the program and provides recommendations for the anticipated Phase III of the ESS program.

This evaluation has two parts: (i) a household survey of randomly selected 409 respondents in four agro-ecological zones of Timor-Leste to assess program performance against indicators; and (ii) key informant interviews (KIIs) and focus group discussions (FGDs) to assess the program against the Development Assistance Committee (DAC) evaluation criteria (Relevance, Effectiveness, Efficiency, Impact, and Sustainability). The full report of this evaluation is attached to this report. FGDs were completed with beneficiaries of seed storage as well as SILC interventions; with silo manufacturers, and with local NGO partners. KIIs were conducted with program staff. A desk assessment to program documents and other relevant reports was completed to complement information gathered from the survey, FGDs and KIIs. The below table summarizes program performance against its indicators:

Performance	Indicators
Achieved targets	- Projected increase in # of months of food self-sufficiency due to seed systems/agricultural input for beneficiary households - # of people benefiting from seed systems/agricultural input activities, by sex - Percentage of beneficiaries reporting decreased post-harvest losses for seeds - Number of farmers with access to improved seed storage system, by sex - Number of farmers with access to BCC materials/training
Partly achieved	- Percentage of farmers adopting improved technique(s)
Not achieved	- Increase in availability of quality seed during planting season

Overall, there was only one indicator that was not achieved by the program which is 'Increase in availability of quality seed during planting season.' The target for this indicator was very high, an 80% increase. The survey shows that there was an increase in availability of around 40 to 46%.

The following table presents conclusions and recommendations from the final evaluator based on DAC Criteria:

Conclusions	Recommendations
Relevance	
• Relevance of the program increased through the inclusion of SILC. • Savings groups were seen as very important by community members. They provide a safe place to put money and reduce waste on unnecessary purchases. • In several districts, vouchers already covered a significant portion of the maize-producing farmers. The use of the voucher coverage is likely to go beyond resource-poor households.	• Completion of group formation and training during ESS Phase III. • Incorporation of SILC indicators in Phase III evaluation survey. • Reduce number of vouchers in Phase II. • Prioritize Phase III districts and communities that have a voucher coverage of less than 40%. • Ensure during selection processes that priority goes to resource-poor households.
Effectiveness	
The following factors contributed to achievements:	• Consider the development of feedback

• Expansion to eastern district through CRS • Increased competition led to cheaper silo materials and good profit margins of $5-7 per unit • Improved beneficiary selection process with feedback mechanisms for community members. The following factors hampered achieving results: • Capacity and dedication of local partners to do sufficient field work in communities • Variation in capacity of blacksmiths to produce silos • Limited thinking of stakeholders towards market-led development • The program's high number of beneficiaries has to some extent hampered the achievement of full adoption of the promoted techniques	mechanisms on the quality of products straight to the blacksmiths. • Assess capacity of blacksmiths prior to signing agreements with them. • Reduce number of voucher beneficiaries to remove expectation to get subsidized silos and freeing time for follow-up activities and monitoring of silo and technique adoption. • More market support activities
Efficiency	
• Quantitative targets for silo distribution are met with only 76.7% budget expenditure. • The cost per household for the seed storage intervention is $39.89. This amount could easily be justified by the prevention of loss of seeds, which can be equivalent to $20 per planting season. • The target number of beneficiaries for seed systems were reached, but needed the deployment of additional staff. • A number of inefficiencies were observed in M&E.	• Ensure allocation of sufficient field staff for beneficiary mobilization and training. • Design a standard monitoring system at the beginning of the program, including database • Consider the use of e-vouchers and linked monitoring system • Identify focal persons for communication between organizations • Design feedback mechanisms/procedures on reports
Impact	
• Blacksmiths turned into businessmen. • Reduction in seed losses and increased food self-sufficiency through high adoption of quality seed storage in the form of metal silos. • Farmers with the capacity to pay to purchase silos at the full price	• Prioritize business management training with new blacksmiths at start of Phase III. • Final evaluation of ESS Phase II to sample respondents from beneficiaries since 2011 to assess continuity of improvements and durability of silos.
Sustainability	
Continuing benefits after the program: • Silo production by blacksmiths. • Increased food self-sufficiency. • Increased seed availability. Factors threatening sustainability: • Unavailability of silo materials at competitive prices. • Continuing "wait and see" attitude of non-beneficiaries • Full price is still considered too high by vulnerable farmers	• Conduct barrier analysis and redesign BCC around 3 key messages: ▪ Proper seed selection ▪ Proper drying ▪ Proper storage • Work towards free market principles allowing price competition between blacksmiths.

D. Coordination Meeting

- Partners Quarterly Meeting: In January 2015, Mercy Corps and CRS conducted a quarterly meeting to specifically the discuss endline survey and DBC assessment.
- Emergency Simulations Exercises: Both Mercy Corps and CRS are members of the Humanitarian Country Team for Timor Leste. During this reporting period, a two-day simulation exercise (SIMEX) was completed in Dili hosted by UNOCHA in close collaboration with the Ministry of Social and Solidarity, relevant local NGOS and INGOS, and UN agencies in Timor Leste.
- Sub- Recipient Financial Monitoring Assessment: CRS started implementation of its Sub-Recipient Financial Monitoring (SRFM) Internal Control Improvement Plan for all ESS project partners based on the calendar year. This initiative is a focus for the CRS-TL Country Program to systematically

improve the capacity of our partners in the areas of financial management, human resources, administration, and information management. All partners improved in scoring since the last time they were assessed.

E. From the Field

Ms. Domingas Gusmao: From Sceptic to a Committed SILC Member

Domingas Gusmao wanted to save money for her six family members, but she was hesitant due to her past bad experience with microfinance institutions. Domingas lost money when she saved it through a microfinance institution in Samagata, her community in Sagadati village. "The microfinance institution disappeared with my money after a few months," she said. This experience made Domingas afraid to put her savings in SILC when she first joined.

Domingas (middle, white shirt) with her SILC group

Domingas decided to give SILC a try when she saw her friend starting to save. She was encouraged to also save her money, but to start out very small. Over time, she saw that the group is very transparent and all of the money stayed in the group box. By the end of her group's saving cycle, she had saved $164.48 total ($160 from her own savings and $4.48 she earned from interest paid back by group members that borrowed money). She plans on using this money to buy school stationary for her children and food for the family. "I was personally impressed with the transparency and accountability of the SILC," she added. Her group will soon start the second cycle and Domingas is more than excited this time.

Tome Mendonsa: Will Continue to Produce and Sell Silos

Tome continues to sell silos in local market

Tome Mendonsa has the smallest production out of all the silo manufacturers in the ESS Program. The program team initially predicted that Tome would not continue to produce and sell silos when the project ended because of the discontinuation of the vouchers distributed by ESS. However, after the latest monitoring visit to his place, the team discovered an encouraging fact:

"People are continuing to come here to buy," Tome answered when asked what motivated him to continue producing and selling silos and other product variations. He added that there are still many people who do not own silos, especially in non-ESS targeted areas. Tome has continued to actively sell his products in several rural markets around Covalima district. On a good market day he can make around $75 of net profit. "It is good money for my family," said the father of four.