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

Annual Report

October 1, 2015 – September 30, 2016



Keyhole Gardens across different target areas

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Program Summary

Since August 2011, Mercy Corps and partners through the USAID/OFDA funded *Effective Seed Storage (ESS) in Timor-Leste* program have successfully developed a market system for a metal-based seed storage system that is customized and locally manufactured. The program is designed as an intervention that addresses seed system insecurity, and ultimately food insecurity, in Timor Leste. The program is an effort to mitigate post-harvest storage losses of farm-saved seeds and also helps maintain better quality seeds to reduce underlying risk factors of availability, accessibility and utilization of productive seeds. This is in line with priority action four of the Hyogo Framework for Action. Since the program's first inception phase, there has been successful replication in 10 out of 13 districts in the country through an initial expansion in February 2013. Starting from February 2014, the program incorporated a member-based financial institution model called Savings and Internal Lending Communities (SILC) to expand access to credit and promote a culture of savings among poor farming households.

While the seed storage system proved 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 and contributes to strengthening resilience among vulnerable families. In April 2015, Mercy Corps, its partner, Catholic Relief Services (CRS), and five local NGOs worked to leverage the success of the program by expanding the improved storage system and SILC activities to further 'off-grid' communities and started promoting keyhole gardening as a diversified production system, with a special focus on vegetable production. The expansion of SILC and seed storage activities are targeting underserved communities within the existing target and neighboring districts/sub-districts. The inclusion of keyhole garden systems will not only further increase food self-sufficiency, but it also serves as a nutrition sensitive agriculture component of ESS.

This year (August 2015- July 2016), the impacts of El Niño in Timor-Leste are reported to be on par with the 1997-98 El Niño, one of the worst on record. Since the El Niño started in May 2015, rainfall has been erratic with an intense dry season that began August 2015 and lasted until the end of March 2016. As a result, agriculture, the main food and income source for rural communities, is seriously impacted and food insecurity is exacerbated. Mercy Corps proposed a modification during the last quarter of this reporting period. This request has since been granted and the Mercy Corps' led consortium has started to carry out response interventions focusing on in-kind seed provision for vulnerable households through voucher distribution: providing purchasing power and seed fairs and/or selected retail outlets to supply seeds. Leveraging our extensive experience using voucher systems in the country, the ESS program team utilizes best practices drawn from Mercy Corps' Cash Transfers Programming (CTP) toolkit. This intervention targets 7,000 households severely impacted by the drought

Performance Summary

Sector 1: Agriculture and Food Security		Objective: Increased food self-sufficiency through access to post-harvest storage system and promoting keyhole garden production system		
Beneficiaries Targeted	300,000 (IDPs: 0)	Overall budget (for all sectors): US\$4,772,499		
Beneficiaries Reached	375,869 (IDPs: 0)	Amount Spent (for all sectors): US\$3,849,414		
Geographic Area (s)	At least 10 out of 13 districts of Timor-Leste			
Sub-Sector 1: Seed System Security				
Sub-Sector 2: Improving Agricultural Production/Food Security				
<i>OFDA Indicator</i>	<i>Baseline</i>	<i>Target</i>	<i>Progress</i>	<i>Last update</i>
Projected increase in number of months of food self-sufficiency	2.5 month ¹	>0	To be reported at the end of	June 2015

¹ Recalculated from the baseline data during the Phase II Final Evaluation, especially to make adjustments from number of food security months into food self-sufficiency months.

due to seed systems activities/ agricultural input for beneficiary households			program ²	
Number of people benefiting from seed systems/agricultural input activities, by sex	0	300,000	375,869 ³ (49% female)	July 2016
Additional Indicators (adjusted according to Phase III proposal)				
% of farmers reported increase of knowledge and practice in seed selection, drying and storage	0	80%	To be reported at the end of program ⁴	June 2015
Number of farmers with access to improved seed storage system	0	52,200	65,942	July 2016
Increase of Household Dietary Diversity Score (HDDS)	7 ⁵	9 ⁶	To be reported at the end of program	October 2015
Number of households with properly used keyhole garden	0	690	992	July 2016
Number of households replicating keyhole garden	0	690	126	July 2016
Number of households receiving El Niño and La Niña Emergency Seed Supports El Niño and La Niña Emergency Seed Supports	0	7,000	0	September 2016

Sector 2: Economic Recovery and Market Systems	Objective: Increased resilience through access to credit and promoting culture of savings			
Beneficiaries Targeted	4,840 ⁷ (no IDPs)			
Beneficiaries Reached	4,508			
Geographic Area (s)	Ainaro, Manufahi, and Baucau			
Sub-Sector: Microfinance				
<i>OFDA Indicator</i>	<i>Baseline</i>	<i>Target</i>	<i>Progress (to date)</i>	<i>Last update</i>
Number of people, by sex, or MSEs newly receiving financial services due to USAID/OFDA support	0	4,840	4,508 members – 52% women	September 2016
Percentage of financial service accounts/groups supported by USAID/OFDA that are functioning properly	0	100%	100% of reported SILC groups	September 2016
Total USD amount channeled into the program area through sub- sector activities	0	0	0	September 2016
Additional Indicators				
% of participating households that have sold assets in the last 6 months to purchase foods or other basic needs	31%	Reduced by 50% from the baseline	To be reported at the end of program	June 2015
% of participating household saving every month	2%	100%	100% of reported 4,508 SILC members	September 2016
Average amount of household income	\$114.61	Increased by 30% from the baseline	To be reported at the end of program	June 2015

² The Final Evaluation of Phase II reported that the surveyed respondents experienced an increase in number of months of food self-sufficiency by 2.1 months (84% increases from the baseline). The data for the Phase III beneficiaries will be collected during the survey at the end of program.

³ Calculated from total household accessed the storage system and/or accessed to promoted good practices (BCC) multiplied by average number of household members, during previous phases (5.7).

⁴ On average 74% of farmers were reported adopting improved techniques by the Final Evaluation of Phase II. For the farmers supported during the Phase III, the progress will be included in the Final Evaluation at the end of program.

⁵ Baseline HDDS is average of all survey respondents.

⁶ Target based on upper percentage of all respondents' HDDS.

⁷ The majority of these will likely overlap Sector 1 beneficiaries

Sector Summary (Activities)

This year, Timor-Leste experienced one of the worst El Niño events on record, reported to be on par with the 1997-98 El Niño. This major climate event has further challenged farming household resilience. Since it started, rainfall has been erratic followed by an intense dry season which resulted in crop failures. Agriculture, the main income source for rural communities, is seriously impacted and food insecurity is exacerbated. The combination of crop failures and food insecurity has, in turn, jeopardized the country’s seed system security.

Since the first quarter of this reporting period, Mercy Corps and partners were actively involved in efforts to mitigate the impacts of El Niño including partnering with the Minister of Agriculture and Fisheries (MAF) to send out SMS messages to farmers. The ESS team also provided technical assistance for MAF to carry out an important nation-wide monitoring survey. With additional funding from OFDA, the team is now conducting seed fairs and using vouchers to provide a one-off assistance supporting vulnerable beneficiary households to meet their basic seed needs during the main planting season of 2016/17, while ideally setting them up to take advantage of a predicted La Nina.

This annual report also marks the fourth year of the ESS program, where the focus of program implementation has been expanding from its initial focus on the Improved Seed Storage (ISS) intervention into a more holistic program that includes the Savings and Informal Lending Community (SILC) activity and Keyhole Gardens (KHG). This has been possible as the e-voucher system for ISS was successfully installed and up running. By end of the third quarter of this year, the targeted number of 300,000 individuals benefitted from ESS interventions was achieved –especially through ISS intervention, thanks to the effective outreach approach by working with and frequently through the private sector (i.e. local seed storage technology manufacturers and retailers, and SILC private service providers) and partnering with other NGOs.

A key element we have demonstrated during the El Niño event is that vulnerable communities with more integrated program support have a better likelihood to achieve more sustainable impacts. As such, the ESS team is poised to continue to support target beneficiaries with SILC and KHG. Figure 1 illustrates the ESS program’s evolution from the start in August 2011 until now. Table 1 summarizes key activities during this year for each quarter.

Figure 1: ESS Program Timeline

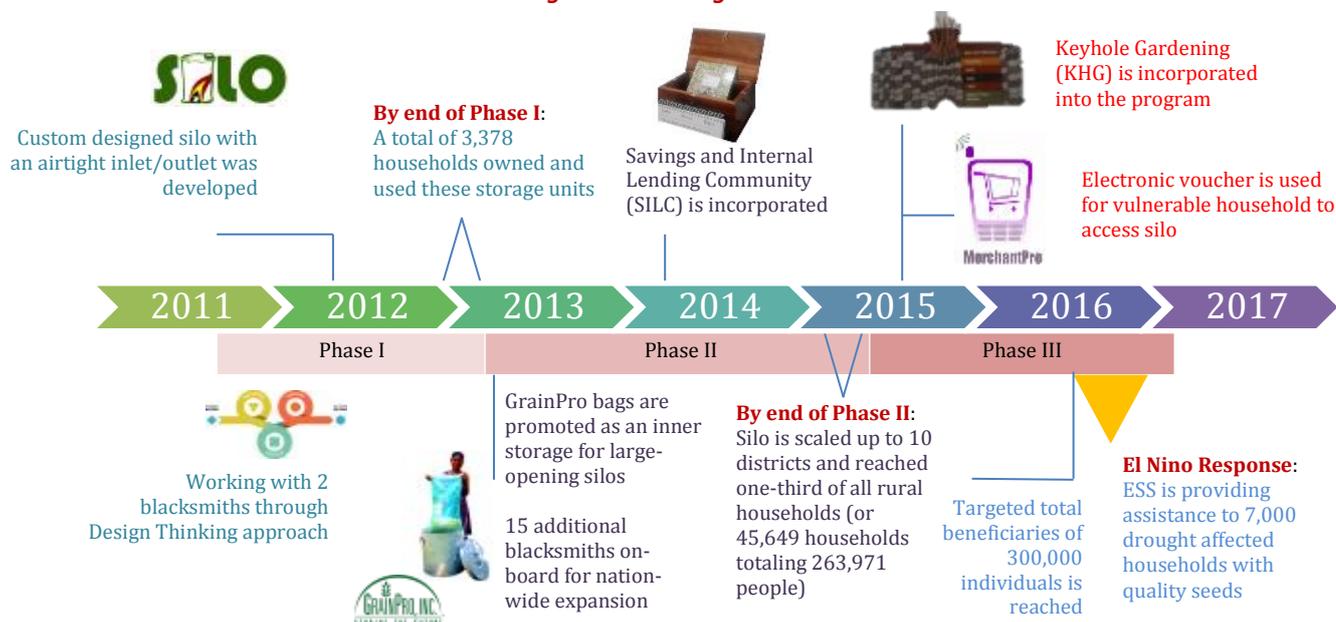
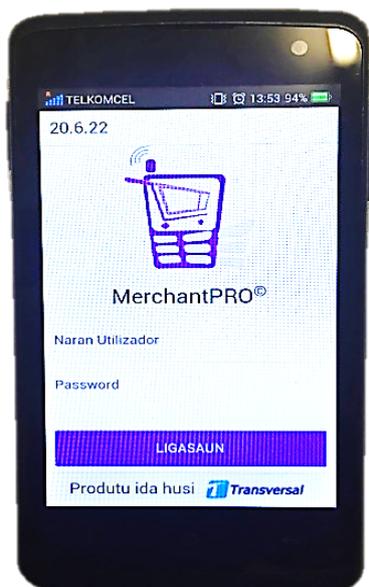


Table 1: Key Program Activities during the Year

Quarter	Key Activities
Quarter 1	<ul style="list-style-type: none"> • Rolled out e-voucher for ISS • The program continued to deliver ISS, KHG and SILC field activities • Started Peace Corps volunteers’ engagement
Quarter 2	<ul style="list-style-type: none"> • Drought Impact Assessment with the Ministry of Agriculture and Fisheries • The program continued to deliver ISS, KHG and SILC field activities • Recruitment of additional SILC Field Agent • SILC Private Sector Provider (PSP) graduation and promotion
Quarter 3	<ul style="list-style-type: none"> • Post El Nino Market and Seed Assessment • Soil Testing on KHG with the Soil Department of MAF • KHG Farmers Field Day (FFD) • Capacity building training to silo producers • Private Sector Provider (PSP) batch 2 training • Submission of El Nino seed response proposal
Quarter 4	<ul style="list-style-type: none"> • Facilitation of silo producer association • SILC PSP/Field Agents cross visits • Kick started seed fairs and voucher intervention • Preparatory stages of seed fairs and voucher intervention • Continued field activities for ISS, SILC and KHG • Submission of post-ESS program primer

Program Implementation Activities

Improved Seed Storage (ISS)



The e-voucher app in Tetum (Timorese language)

The Electronic Voucher System: As planned during the previous year, this year the program used an electronic voucher system to ease voucher distribution and reporting by field staff, the M&E team, and blacksmiths. This system also improved the “governance” or compliance to finance and operations procedures and increased transparency to beneficiaries. During this first quarter, Transversal, the previously engaged e-voucher app developer, customized the e-voucher system – called MerchantPRO, so that it is suitable with ESS requirements. The program team then tested and provided feedback to Transversal. Manuals, both for users and web admins, were finalized in November 2015.

Incorporating feedback from the field, the app was finalized in December and was immediately used on a limited basis by the blacksmiths to try and become familiar with the system. Training to blacksmiths was conducted from November 2015 onwards. One-on-one assistance by trained program staff was provided to all blacksmiths until they mastered the system by the second quarter.

Community Mobilization, Behavior Change Communication (BCC) Training, and Voucher Distribution: This year, Mercy Corps and CRS continued to work with local partner organizations to mobilize communities, lead the beneficiary selection process and provide BCC training to target farmers. In total for Phase III, the program reached 147 communities in the least developed sucos⁸ across Timor-Leste.⁹ A total of 19,952 vulnerable households were identified and selected as direct beneficiaries of ESS. Among those households, 98% were trained on BCC and received vouchers for buying the introduced seed storage. A total of 19,553 vouchers were redeemed during the reporting period, bringing the total number of farmers with access to silos to 65,942 farmers.

The new BCC flipbook/training guide also included messaging recommended by the Designing for Behavior Change (DBC) frameworks that were identified earlier during the year. The additional messaging included: i) Simplified key steps in storage practice and inclusion of a message that airtight storage minimizes weevil infestation; ii) The updated seed selection process with two key messages for selecting the biggest available cobs and the economic benefits of investing in proper drying; and iii) A statement of ‘food security started with seed security and seed security started with seed selection’.



A woman carries a silo that she bought from the blacksmith at a local market in Covallima

Post-harvest BCC training was held by field staff and the Ministry of Agriculture and Fisheries (MAF) Suco Extension Officers for beneficiaries who received the seed storage vouchers. In addition to seed selection, drying and storage mechanisms, and information related to El Niño was shared with the community during the training.

In order to ease the documentation process, trained field staff started using tablets for beneficiary selection and monitoring. As a result, a substantial additional number of beneficiaries were registered to receive seed vouchers.



From left to right: the e-voucher, a woman shows her seed storage voucher, blacksmiths uses a mobile phone to scan vouchers.

El Niño Information Sharing: In anticipation of the impacts of El Niño, during the first and second quarters of this year, the team shared information on the weather phenomenon and presented key messages that were developed by the government and partners during the trainings. In November 2015 and February 2016, Mercy Corps, in collaboration with the Ministry of Agriculture and Fisheries and Telemor (a telecom provider),

⁸ As per the Asian Development Bank, Least Developed Sucos in Timor-Leste.

⁹ This is an additional to the total number of 202 rural communities (sucos/villages) across 10 districts reached by end of Phase II.

distributed a key message on El Nino via SMS to 339,182 recipients across the country advising them to wait for rains before planting, save best seeds, and plan accordingly.

Capacity Building for Local Manufacturers: In May 2016, 17 supported seed storage manufacturers attended a workshop with the Ministry of Commerce, Industry and Environment (MCIE) to establish an association/cooperative of storage manufacturers. The workshop developed a process to identify potential members, developing statutes, the registration process and other relevant topics. An action plan was established following the workshop to form the association/cooperative; its implementation will be reported during the next reporting period.

Savings and Internal Lending Communities (SILC)

Recruitment and Training of Additional Field Agents:

During the second quarter, Mercy Corps and CRS recruited 32 new SILC Field Agents. Trainings were conducted in two separate locations, one in Baucau and another in Same. A five-day training was carried out covering skills related to community mobilization, forming and managing SILC groups, and record keeping.



A new SILC field agent practicing how to use the SILC flipbook in Same

Selected SILC Private Service Providers (PSP) Received Training:

Following the technical training and certification process of the PSP in May and June 2016, the program conducted a two-day marketing training to five PSPs. The objectives of this training were to train the PSPs on how to market their services to rural customers, including skills to determine price and how to negotiate and manage income. Training was facilitated by CRS Country Manager, who is also a SILC Master Trainer. In June 2016, another batch of five PSPs were selected amongst those who passed the recruitment process. This process includes completing a number of interviews and focus groups discussions with the groups he or she will supervise. These five PSPs were also trained and prepared to sell their service to the communities. The program provided all PSPs with a t-shirt, ID card, and flipbook.



A PSP providing training to SILC group in Baucau

Field Agent/PSP outreach: Mercy Corps and CRS continued to provide technical assistance to Field Agents to form and provide capacity building to SILC members in the target districts. Until the end of this reporting period, 4,508 individuals (52% female) were organized into 187 SILC groups. The total cumulative savings of those groups are \$61,651 with \$23,045 in outstanding loans.

Savings Group Technical Working Group: CRS and Mercy Corps are active members of the Savings Group Technical Working Group (WG) together with other local and international NGOs. CRS is currently hosting the WG and organized a field visit among WG members to share experiences and learning. In November 2015 and in May 2016, the WG members visited Mercy Corps SILC groups in Maubise, Ainaro, and Same. The SILC was

selected as the focus mainly because other NGOs wanted to learn more about the ‘share out’ system at the end of a SILC cycle.

Keyhole Garden (KHG)

Keyhole Garden FFS: Mercy Corps and partners conducted Keyhole Garden Farmer Field Schools (FFS) in the targeted communities. By end of this year, 992 households built keyhole gardens, with a total of 126 additional households replicating KHG in their garden. In addition, a total number of 42 keyhole gardens were built in public places such as schools and community centers as model gardens. During the third quarter, garden replication started to occur, which we believe is a result of the good examples provided by community promoters. This is largely due to the improvements partners have made in implementation strategy and because communities are seeing the garden’s benefits during the El Nino season.

Soil Testing: In order to collect evidence supporting the effectiveness of KHG in terms of soil nutrients, Mercy Corps, in partnership with the Soil Department of the Ministry of Agriculture and Fisheries, conducted soil testing in four municipalities (Bobonaro, Manufahi, Baucau and Lautem). The activity started in June and finalized in August 2016. The objectives of the activity were:

- Conduct soil testing in three sucos in each municipality.
- Provide training to ESS staff on how to conduct simple soil tests using a simple soil nutrient testing kit.

The soil testing was carried out in the KHGs and other farms (as control). Testing included the following: (i) Soil physical compositions; (ii) % of Nitrogen, Phosphor and Potassium (NPK) contents; (iii) % Porosity; (iv) pH; and (v) Moisture content.

The soil testing included comparisons between KHGs and control areas (soil from farming land nearby the sample keyhole gardens). The results of the analysis confirmed that KHG resulted in better soil, both in terms of physical as well as chemical conditions. These findings validated that keyhole gardens are a proven approach to improve and maintain soil quality. The observation results also showed that biological activities at keyhole gardens are more obvious than the control plots, meaning that the soil is rich in nutrients.

Farmer Field Day (FFD): The team facilitated farmer field day (FFD) events to showcase the KHGs of the early adopter households. These events, conducted in June and September 2016, showcased to local community members and local leaders the performance of KHGs and how they benefit families. The first two FFDs were conducted in Lautem (CRS) and in Manufahi (Mercy Corps) and were carried out also in other locations across target areas.

PEACE CORPS Partnership: Training for new Peace Corps volunteers:

In October 2015, Mercy Corps’ ESS Program Manager was invited by Peace Corps to provide on-the-job training to their new volunteers. Peace Corps identified keyhole gardens as one of several technical skills that can be further introduced by the volunteers to Timorese communities. The training also included practical sessions at a community in Dili. Seven keyhole gardens at seven different households were established at the end of the training. To date, at least three volunteers have been actively promoting keyhole gardens to the communities where they are living.



KHG Training provided to Peace Corps volunteer by ESS team

Participation at the Perma-Youth Camp: During the first quarter of the reporting period, Mercy Corps was invited to show-case the keyhole gardens technique to the participants of the 2015 Perma-Youth Camp in Aileu in November 2015. The Perma-Youth Camp is an effort to promote sustainable agriculture practices to youth by holding a five-day camp located in a rural farm setting. During this event, a keyhole garden was established in one school nearby where the camp is located.

Monitoring and Evaluation (M&E)

Regular Monitoring by M&E Team

Regular M&E Visits: Monitoring visits have been conducted regularly by both the M&E team and the senior management teams of Mercy Corps and CRS. During the first quarter, based on the monitoring visits the M&E and Program teams identified two key issues hindering adoption of keyhole gardens: i) a ‘wait and see’ attitude of farmers, who want to see if it is a sustainable solution or not; ii) some key materials (i.e. stones, ash) are not always available and/or accessible as required by target beneficiaries. Realizing this, Mercy Corps and CRS started to identify target households who are interested in establishing keyhole gardens to provide assistance and materials and additional materials were also explored (i.e. bamboo and wood) as alternative materials for garden walls, and coffee or paddy husks to replace ash. This type of regular M&E and feedback process to the program team has been implemented at least each quarter and resulted in documented learning and adaptations to program activities.

Mobile Data Collection: As presented above, in March 2016, Mercy Corps provided capacity building to CRS and partners through refresher training on mobile data collection, especially to collect beneficiary information and other relevant monitoring information. Mercy Corps and partners have started to utilize mobile data collection technology and streamline it with the use of electronic vouchers, both to increase the ease in data collection and to improve the quality of data and information collected. Following the training, the M&E team provided field coaching to each field staff ensuring that data collection is done properly.

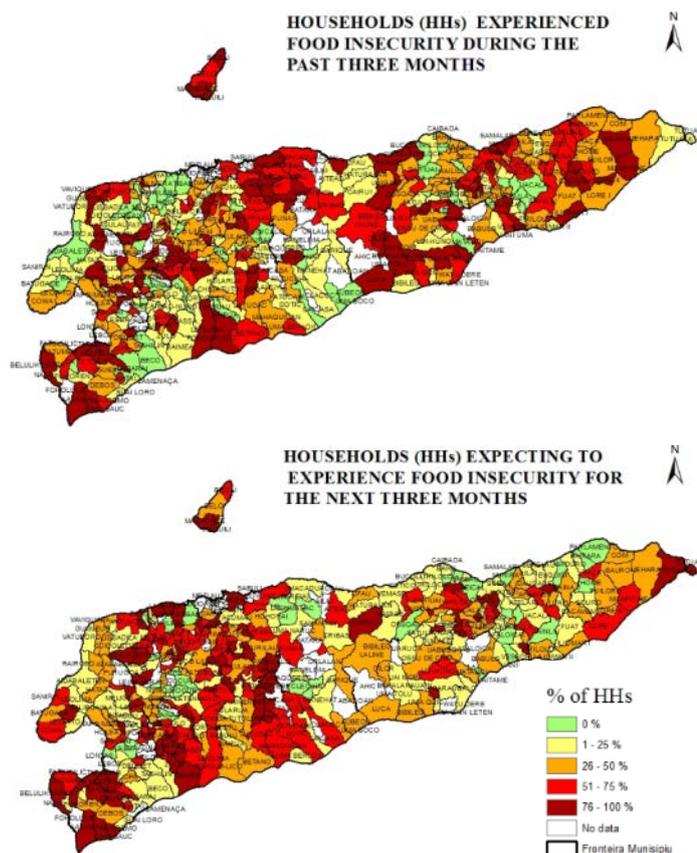
From April to June 2016, field staff continued to carry out program implementation activities while monitoring the project beneficiaries using the mobile data collection technology. The team will continue to review the challenges and progress related to using technology by gathering feedback from the field to improve the design of the data collection process and to provide necessary supports.

El Nino Assessments

Drought Impact Assessment with the Ministry of Agriculture and Fisheries: As previously mentioned, Timor-Leste’s experienced El Niño in the form of a prolonged drought. In response to this, in November 2015, the ESS team, MAF and Telemor (a telecom provider) collaborated to distribute a key message on El Nino via SMS to 339,182 recipients across the country.

In addition, the team, in partnership with the UN-FAO, provided assistance to MAF to assess the impact of the drought to the rural communities across the country. The Rapid Drought Impact Assessment was conducted across 12 out of 13 districts utilizing government extension officers as enumerators. The assessment found the following devastating findings:

- 72.9% (estimated to 121,958 households) are impacted by drought; with 40.6% (estimated to 62,717 households) experienced food insecurity for the last three months (December 2015 – February/March 2016) and 45.9% (estimated to 68,183 households) expecting to experience food insecurity in the next three months (March/April – June 2016).
- Impact on animals: 21% (estimated to 25,611 households) of the drought affected households reported with sick animals and 48% (estimated to 60,430 households) of the drought affected households reported animal deaths.
- Impact on maize, rice and vegetable productions: 51% of households reported maize not growing well and 10% of the households reported maize failed. 43 % of households reported rice not growing well and 6 % of households reported rice failed.
- 49% of the households reported vegetables not growing well and 4.5% of the household vegetables failed. 9% (estimated 11,000 households) of the drought affected households plant more maize, rice, and vegetables for the next months to come, but they lack seeds.



The followings are recommended actions both short and medium-long term:

SHORT TERM ACTIONS	MEDIUM TO LONG TERM ACTIONS
<ul style="list-style-type: none"> • Maintain the inter-ministerial coordination to monitor impact of the El Niño and potential for a La Niña • Immediate Food basket (nutritious food) distribution targeted to HHs already experienced food insecurity in the past 3 months (Dec – Feb) and those who will be food insecure in the next three months • Timely delivery of the Social safety nets payment (elderly, bolsa da mae, veterans, people with disability) • Ensure that school feeding is operational (timely release of funds) to all schools in the country 	<ul style="list-style-type: none"> • Expand the promotion of climate smart agriculture and appropriate water conservation systems, for example: <ul style="list-style-type: none"> - Conservation agriculture - Rain water harvesting - Keyhole garden - Perma garden/permaculture - etc. • Identify and promote local drought tolerant seeds (i.e batar lais, batar ain naruk); implement the seed system to secure seed availability through private sector; promote improved seed storage systems and good practices in seeds management

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|---|---|
| <ul style="list-style-type: none"> • Intensive monitoring to all aldeias and sucos especially the condition of the households that already food insecure and report immediately to relevant ministries. • Ensure the continuity and timely delivery of the animal vaccination program and disease control through Suco Livestock Agents • Establish water reservoir to collect rain water or dig wells in the drought affected areas. • Expand and intensify planting in areas with second season and areas with available water (i.e. utilize the existing irrigation system that has water) • Continuous monitoring and publication of agrometeorological information (i.e. precipitation, winds) targeting at farmer. • Consider seed distribution to farmers who do not have seeds or the use of vouchers for accessing seeds | <p>at farm level.</p> <ul style="list-style-type: none"> • Promote Nutrition sensitive Agriculture through: <ul style="list-style-type: none"> - diversified household food production - Social Behaviour Change Communication (SBCC) • Review the food basket distribution system (i.e. cash transfer vs food basket) • Strengthen the M&E system to regularly monitor food and nutrition insecurity • Promote improved animal husbandry system and management • Develop private sector to invest in input supply (i.e. food, vaccines, medicines, market) for livestock • Review and promote water reservoir system to harvest rain water • Strengthen agrometeorological data collection and utilization to inform farmers |
|---|---|

Post El Nino Market and Seed Assessment: The Humanitarian Partnership Agreement (HPA) assessment reported that 67% of farmer households have had to replant, while the MAF assessment above revealed that 9% (an estimated 11,000 drought-affected households) intended to replant more maize and rice in the April/May 2016 season, but could not due to a lack of seeds. With the reported crop failures and the potential of La Niña, it was projected that farmers would experience further difficulty during the main August/September 2016 planting season of staple crops, especially due to the potential reduction of available seeds at the household level. A combination of crop failures and food insecurity jeopardized the country's seed system security.

To understand the impact of the drought on seed system security, in May and June 2016, CRS, Mercy Corps and CARE conducted a follow-on study on seed system security and a market assessment to determine whether cash/voucher food assistance and/or seed assistance would be an appropriate response. The assessment was conducted in Baucau, Lautem, Viqueque, Manufahi, Covalima and Bobonaro municipalities – areas indicated by the MAF assessment as badly impacted municipalities.

The assessment found that the markets during the drought were functioning normally and beneficiaries continued to have access to markets where food is available and the quality of the available food is equivalent to what would be distributed through a food distribution program. Therefore, this type of programming was not recommended. With multiple plantings and subsequent crop failure reported, households have depleted all available farm-saved seed and are unable to replenish their stock. However, in all communities surveyed, farmers can still obtain seed either from their neighbors or the market. With adequate seed available locally, no seed distribution is necessary. The assessment found that the main limitation to purchasing seeds on the market is cash. To address this, the ESS team was granted support from OFDA in October 2016 to carry out voucher and seed fair programming to target the most vulnerable households to better prepare for the 2016/17 main cropping season.

USAID/OFDA Monitoring Visit

OFDA Regional Advisor Visit in 2015: During the first quarter, Harlan Hale, OFDA Regional Advisor visited Baucau and Manatuto to see different sites of OFDA-funded projects in the country, including ESS. During this visit, Harlan met with supported farmers (users of silo and keyhole gardeners) and SILC groups. Harlan also visited other OFDA funded project sites, including the Conservation Agriculture project by FAO and a Disaster Risk Reduction project implemented by IOM.

USAID Timor-Leste Visited Manufahi: During the second quarter, the Director of Economic Growth and Agriculture Officer from the USAID mission in Timor-Leste visited Manufahi to monitor progress of ESS in the field. The visit was part of a joint visit organized by different implementing organizations funded by USAID. During the visit to the Mercy Corps ESS site, the USAID team met with one of the blacksmiths in Betano and shared and discussed the sustainability of the SILO production after the end of the program. They also visited one SILC group in Manufahi town, talked with the member of Cablaci group about SILC system in their group and discussed saving and loans activities among other things.

OFDA Visited Lautem: In March 2016, the ESS team hosted the OFDA Regional Advisor to visit Lautem to get a better sense of the impact of El Nino on farmers in the country. The advisor also visited ESS project areas most affected by El Nino. One of these areas was Ilomar sub-district on the southern coast and where CRS has a successful SILC group. This community has since started a number of keyhole gardens with the assistance of ESS. The advisor also visited several communities impacted by El Nino that had been able to successfully plant and grow keyhole gardens during the El Nino period (some had harvested five times or more). It was observed that families were growing items such as bok choy, carrots, mustard greens and spinach during the visit - even with the severe drought – and in some cases, the keyhole garden was the only place where they were able to grow that season.



OFDA team visited Errera

OFDA Monitoring Visit: During the fourth quarter this year, OFDA Regional Advisor and two Program Officers from Washington DC visited OFDA-funded projects in the western districts of Timor-Leste. Included in this trip was a visit to four communities where Mercy Corps implements the ESS program. Showcases during the trip were effectiveness of keyhole gardens as a climate smart farming technique, seed storage system as a medium to protect key asset of seeds, as well as SILC that increases social capital in addition to improve access to savings and micro loan for vulnerable households.

Coordination Meetings

District-Level MAF Harmonization Meeting: The project continued to actively participate in municipal-level MAF Quarterly Harmonization Meetings. During the meeting, the program team shared achievements to-date and the workplan for the next quarter. Participating in these meetings allows for joint learning and strengthened coordination and partnership with MAF and other relevant stakeholders.

ESS Quarterly Partners Coordination Meeting: Mercy Corps and CRS held a quarterly coordination meeting to review and gather information on best practices, lessons learned, challenges and to develop an action plan on how to address those challenges that arose during the implementation. In many times, during a coordination meeting, a project site visit was also conducted.

Coordination Meeting with Supported Manufacturers: Mercy Corps and CRS also organized two review meetings with all silo manufacturers this year. The meeting was crucial in order to share the target number of silos that need to be produced and distributed for the remaining months of the ESS program in the target areas. It was also used as an opportunity to gather information regarding the challenges faced by the manufacturers in term of procuring/transporting materials, production and delivery to beneficiaries. A joint action plan was developed to ensure that seed storage vouchers were distributed and utilized by the target vulnerable households.

Stories from the field

Keyhole Gardens: Vegetables for Education



Alsina do Carmo with her daughter, age 8, in front of their KHG where they grow carrots

Alsina do Carmo, age 54, lives in Sananain succo in the district of Manututo (sub district Laclubar) located in the central part of Timor Leste. Alsina is a farmer and before the ESS program, she would use the money she earned from selling her maize and coffee crops to purchase vegetables for her two adopted children, ages eight and six, from the nearest market - which is located on the opposite side of a large river bed. During the dry season (May – October), it can take thirty minutes to walk to the market; otherwise the river is too high to cross and the market is inaccessible.

In April 2016, Alsina was introduced to the keyhole garden technique and was drawn to it because of the ease of watering the garden. If she planted a traditional garden, she would have to walk 30 to 40 minutes to the river, four to five times, to collect enough water for her vegetables. With the KHG method, it only takes her five minutes to water her garden using the gray water from her kitchen. After the program field agent taught Alsina

about the keyhole garden method, she and her children immediately collected the materials to make their own. Since April, she has built two KHGs in which she grows bok choy, salad greens and carrots. Alsina sells her produce to the local school where her children attend and to date, she has earned \$24, all of which she uses to purchase her children's school supplies. Before she started her KHGs, she bought her children's supplies by selling chickens, pigs and cassava. Now, she is a member of an ESS SILC group and she uses it to as a way to save her profits. Since using the KHG, Alsina has saved \$70. She plans to build one more KHG and will use all of the profits from her gardens as well as her SILC savings for her children's education.

Saving and Internal Lending Communities (SILC): The Future is Starting Now

The LAHO (Loron Aban hahu Ohin) SILC group, whose name translates to "The Future is Starting Now," is located in Sananain succo in the district of Manututo. The group, which started in May 2016, is made up of 17 members (6 women, 11 men), all farmers, who meet every Saturday with the collective goal to increase their

savings and access loans. Before the SILC was formed, it was difficult for these farmers to access any type of loans – banks are far away, the interest rates are high, and loans are only really accessible for public servants.

To join the group, each member must deposit an initial \$10 and are required to deposit a minimum of \$1 every week to the loan funds and \$0.25 for the social fund (which is reserved for emergencies), most of which comes from profits earned from selling livestock (i.e. chickens and pigs). The group is trained on bookkeeping and how to save and take out loans. Before they started their own SILC, members used traditional methods to save



The LAHO SILC members from Sananain suco in Manututo. Their name translates to “The Future is Starting Now”

their money, such as hiding it inside of bamboo stalks or putting their money into plastic bags and storing it on top of the roof. Members recalled not being able to understand where all their money went. They would earn money and it was immediately spent. Using SILC, their money is stored in a safe place allowing them to increase their savings over time. When they want to take out a loan, they have to submit a proposal to the wider group for approval.

Since they started in May 2016, the LAHO SILC has given nine loans to their members. Some have used the loans for housing materials while other used it to pay for their children’s education. To date, their total savings is \$1,093 for loans (\$463 saved in their box, \$630 is on loan) and \$87.75 for the social fund (which has not been utilized yet).

Since they started in May 2016, the LAHO SILC has given nine loans to

LAHO SILC plans to purchase a tractor to turn their paddy into rice. All SILC members will have access to it and those without SILC membership will be required to pay a fee to use the machine. When asked if they will continue SILC after the program, there was a resounding “yes!” from all of the members.

Seed Storage: More Seeds, Means More Silos

Francisco (age 62) and Eufemia du Santos (age 60) from Cribas suco in Manatuto district started using seed storage silos after they talked to their local blacksmith. The blacksmith had recently attended a training on market development and using his new marketing skills, convinced the du Santos on the benefits of storing seeds using his metal silos. The du Santos bought their first silo using a program voucher in 2014. They saw such a huge improvement in their crops (bigger harvest and more seeds) that they purchased two additional silos in 2015. Before using the silos, the du Santos were only able



Eufemia and Francisco du Santos posing with one of their three silos and the local blacksmith who made it (right)

to use a small amount of the seeds that they stored from one planting season to the next. Using the ESS program's silo method, they now have more seed and, as a result, they grow more food. In fact, their crops have been so successful that three silos are no longer enough. They have ordered an additional silo from their blacksmith. However, until the blacksmith completes their order, they must store their remaining seeds using the traditional method of hanging the remaining corn cobs in trees or bamboo structures, which, they admit, is no longer their preferred method and they look forward to receiving the fourth silo.
