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Asset-Based Financing for Smallholder Farmers Project

FINAL REPORT

(9 May, 2012 – 8 May, 2013)

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Acronyms and Abbreviations

ABFSF	Asset-Based Financing for Smallholder Farmers Project
AOR	Agreement Officer Representative
GL	Group Leader
HQ	Headquarters
HR 1	High Rainfall 1 (USAID Geographical Location)
KMDP	Kenya Maize Development Project
MLND	Maize Lethal Necrosis Disease
PERSUAP	Pesticide Evaluation Report and Safe User Action Plan
PMEP	Performance Management and Evaluation Plan
USAID	United States Agency for International Development
USG	United States Government

I. Asset-Based Financing for Smallholder Farmers Project

Executive Summary

The ABFSF Project was designed to change the circumstances that are causing smallholder farmers in Kenya to under produce maize and continue the progress that USAID's Kenya Maize Development Program (KMDP) made in upgrading the maize value chain in Kenya. Specifically, it was designed to establish a Permanent Revolving Fund that would increase smallholder farmers' access to finance through the provision of credit and high quality seed and fertilizer. In addition to this, the project was designed to develop linkages for smallholder farmers to larger seed and fertilizer firms such as Western Seed and MEA; provide them with technical assistance through a network of trained field officers; and assist them with group formation for aggregating surplus production. The period of performance of the project was from May 9th, 2012 to May 8th, 2013 and covered the end of One Acre Fund's 2012 planting season and the beginning of our 2013 planting season.

The project recruited and on-boarded 231 new field officers and thousands of group leaders who manage the farmer groups for the 2013 season. As the project began, the farmers were being trained on improved techniques for top dressing and second weeding.

In February of 2013, we finalized the signing of loan contracts, enrolling a total of 60,182 clients of which 32,498 are new members for the 2013 season. Of the total clients signed, about 61 percent, or 36,711, are female members. We distributed more than \$5.587 Million in loans for the 2013 season of which, \$3.017 million are in new loans.

During the 2012 season, the project provided improved training during our harvest training series. In an effort to reduce the potential hunger season for our farmers, we introduced a maize storage pledge called "Tatu Hadi Tatu," which encouraged farmers to store at least three bags of maize through March. This level of local storage should provide farmers with enough food to last through the peak hunger season. We analyzed the self-reported results of our Storage Campaign, and 60 percent of our operational areas reported farmers changing their storage behavior due to the campaign. These farmers held to the pledge of storing at least three bags of maize until March, therefore reducing their hunger season.

We had a successful end to the repayment for the 2012 season, at 99.2%, which indicates that we continue to provide high quality customer service. Towards the end of the 2012 season, we noticed the spread of a disease within the maize crop, called Maize Lethal Necrosis Disease (MLND). Due to this, we conducted an intensive campaign on educating our farmers on alternative crops and the benefits of crop diversification. Since most of our farmers are concerned with ensuring food security and income for their families, we have trained them on how food security planning starts with diversifying and planting alternative crops to maize. Our key message with crop diversification is to ensure that the farmers will not be fully reliant on one crop for their source of income and to improve their overall food security and nutrition. We worked closely with Harrigan Mukhongo, our Agreement Officer Representative (AOR), to identify alternative products to offer within our loan package and determined to offer millet, sorghum and sweet potatoes as part of our core package for 2013. While we are excited to have additional crops to offer with our package, we intend for maize to return as our anchor crop once a virus-tolerant variety is found.

Due to the quick ability to shift our package and properly train our farmers on the importance of crop diversification, for our 2013 season we successfully delivered high quality fertilizer and seeds to 530 sites, reaching a total of 60,182 total farm families prior to the rains starting in March. We also completed planting trainings for the farm families enrolled within the program, training them on six different crop varieties. In order to facilitate the adoption of the new crops, we introduced crop

leaders, crop reference cards, and the development of simple planting tools to help our farmers learn how to effectively plant the new crops.

Towards the end of the project period, we also completed our top dressing delivery and began to deliver freshly cut improved sweet potato vines to our farm families.

The project had an estimated impact of \$6.140 million in new sales and 16,964 metric tons of new maize sold. The project positively affected the planting and storage behavior of smallholder farmers within the HR I region. This is indicated by the 90 percent of farmers who used improved planting techniques and over 61 percent of farmers, compared to the control group, who reported a mild to no hunger season through improved storage of grains. Overall, these are impressive impacts that were achieved during the project period. The greatest impact of the project is the development of the Permanent Revolving Fund. This Fund will continue to serve the smallholder farmers in the HR I region into perpetuity and will make a lasting impact in the lives of thousands of farmers and their families.

II. Activities Undertaken

The ABFSF Project was designed to change the circumstances that are causing smallholder farmers in Kenya to under produce maize and continue the progress that USAID's Kenya Maize Development Program (KMDP) made in upgrading the maize value chain in Kenya. Specifically, it was designed to establish a Permanent Revolving Fund that would increase smallholder farmers' access to finance through the provision of credit and high quality seed and fertilizer. In addition to this, the project was designed to develop linkages for smallholder farmers to larger seed and fertilizer firms such as Western Seed and MEA; provide them with technical assistance through a network of trained field officers; and assist them with group formation for aggregating surplus production. In order to achieve the multiple objectives of the agreement, the project undertook many activities.

Field Officer Recruitment and On-Boarding

The project had a strong recruitment season for 231 new field officers for our expansion districts and current operational areas, of which 40.7 percent were women field officers. The caliber of the candidates was terrific and our new rigorous screening process made a difference in raising the bar for incoming staff. Coupled with a more in-depth and coherent on-boarding calendar, the districts were off to a terrific start for 2013 with this well-trained entry class of field officers.



During the time we on-boarded the field officers, we trained them on how to provide the best customer service, deal with challenging farmers, sell the loan package (contract overview), work with the group leaders, and implement successful trainings.

A great lesson learned from this for One Acre Fund was the importance of drawing from a network of volunteer group leaders to fulfill our future field officer needs.

Group Leader Recruitment and On-Boarding:

New and already-hired field officers recruited and selected new group leaders for the 2013 season, and the results were strong. We provided training to over 10,000 new volunteer group leaders on how to form the farmer groups, develop the group constitution, assign roles and responsibilities, and establish the internal group collateral form. Group leaders are a critical component of our project activities as we rely on them to provide leadership to the groups, assist the field officers in ensuring timely repayment, and ensure the group participates in the trainings that we provide and adopts the methods we teach.

Top Dressing and Weeding Training (Season's 2012 Farmers)

As the project began, we were in the midst of conducting second top-dressing and weeding training. Farmers were trained on using a fertilizer scoop to properly measure and apply the top dress fertilizer (CAN). The CAN is delivered to the maize plants in two separate applications separated by 4 weeks, in order to maximize nutrient absorption by the maize plants. In addition, the farmers receive training on proper weeding techniques. The project staff explains and demonstrates the importance of removing weeds around their maize plants prior to putting on the second top dressing.

Harvest Training Series (Season's 2012 Farmers)

During the project period, we completed our Harvest Training Series, which consists of training our farmers on improved techniques for harvesting, drying, shelling, composting, and storage to reduce post-harvest loss. The project's field officers engaged the farmers in the training through the use of role plays and demonstrations to help the farmers understand the improved farming techniques. We

have found that when farmers are actively engaged in the training, they will then use the techniques on their farms.

Harvest training: Right before the harvest season in August, we trained farmers on how to properly harvest their yields to reduce post-harvest loss. Research shows that about 20% of maize is lost if not harvested properly, so we trained our farmers on how to determine the best timing to harvest the maize by taking a seed from a cob and breaking off the tip. If the tip is black, the maize is ready to harvest; if it is white, then we recommend that they wait to harvest. After the maize has been harvested, we trained them on how to dry the maize to prepare for storage.

Drying Training: We trained our farmers to use an “active” drying technique to dry their maize. If it is not raining when the maize is ready, we teach the farmers to stook the maize to dry it properly. If it is still raining, we recommend that the farmers remove the cob from the stem to dry the maize in the sun. Our field officers demonstrated how to use Actellic Super dust to protect the maize after the farmers have successfully dried the cob in the sun and prior to shelling. The farmers were trained to sprinkle a small amount of Actellic Super dust on the floor of the storage space and then pile the cobs half a meter high and continue to sprinkle dust every half meter. Based upon our experience, we recommend that the maize should remain drying for 2-3 weeks before shelling.

Composting Training: Post the drying training, we trained our farmers on how to compost their maize stalks to create organic fertilizer to replenish nutrients and organic carbon on their land. We recommend that farmers either create a composting pit, or if the farmer prefers, to line the remaining maize stalks across their field in 4-5 lines per half acre, soften them with water and cover them with dirt and manure to help with the decomposition.

Shelling Training: We provided our farmers with metal maize shellers so that they are able to efficiently shell the maize cobs and reduce loss due to broken kernels. During the training, the farmers separated the good cobs from the bad cobs so they are able to keep the best kernels for storage. After our farmers have shelled the maize, we recommend that they continue to dry the kernels until they make a cracking sound when you bite into them. We want to make sure that all the moisture is out of the kernel prior to them placed in storage bags.

Storage training: With the drying and shelling completed, we trained our farmers on how to safely and properly apply the Actellic Super dust to the dry maize prior to putting it in storage bags. In order to prevent over-usage of the Actellic Super dust, we trained the farmers to use 50g of Actellic Super, equal to two full matchboxes of dust, mixed thoroughly per 90KG of maize. In addition to training them on the safe application of Actellic Super dust, we also worked with our farmers on determining a location in their home (or neighbor’s home for some groups) to place their stored maize. We trained them to place the bags on a raised platform away from the walls to reduce the chance of moisture or pests getting into the bags.

Storage Pledge (Part of the Harvest Training Series for 2012 Season Farmers) – Reduce Hunger Season:

In order to influence farmers’ storage behavior to store extra maize to make it through the hunger season, we conducted a storage pledge, called Tatu Hadi Tatu. Within this campaign we encouraged farmers to store three bags of maize until March, thus helping them to get through the peak hunger season. For the members that signed up, we provided them with special bag tags (pictured) that would denote which bags were going to be stored until March, when they can either sell or eat the maize during the peak hunger season. Our study shows that the average family stores only 0.5 bags of maize each, so this is a six-fold increase in stored maize that has been pledged. We are happy to report that 60 percent of our districts in Western Province reported that farmers had stored, on average, more than 3 bags until March. Compared to data from last year, this is a substantial increase (~ 2 bag increase) in local storage; this behavior change should help our farmers to feed their families through the upcoming hunger season.



Training on Importance of Crop Diversification

As a result of Maize Lethal Necrosis Disease (MLND), we offered alternative crops to maize in the 2013 planting season. Due to this, we conducted an intensive campaign on educating our farmers on



alternative crops and the benefits of crop diversification. Since most of our farmers are concerned with ensuring food security and income for their families, we have trained them on how food security planning starts with diversifying and planting alternative crops to maize. Our main message during these trainings is to ensure that even if maize fails, families will have a source of income and food. Overall, our farm families understand the need for diversification, although we still continue to get the question of when and where they can plant maize. We felt that our messaging has been effective and well received by the farmers that have signed up with our program. While we are excited to have additional crops to offer with our package, we intend for maize to return as our anchor crop once a virus-tolerant variety is found.

Land Evaluation

In preparation for the 2013 planting season, our field officers conducted an evaluation of the farmers' land. The land evaluation provided several key pieces of information: 1) It allowed us to ensure that the amount of loan the farmer has signed up for is correct; 2) We looked over the quality of the land to ensure that it is ready for planting, has a sweet potato bed for multiplication, and we advised the farmer on what they need to do in order to prepare the land for the upcoming season; 3) We ensured the proximity of land with other group members, as group members tend to help each other out during the planting season. The land evaluation is very important to ensure that our farmers are able to have a very good harvest. Our primary message to our farmers during this training is that a strong harvest starts with good land.

Pre-payment of Loans

In order for a farmer to qualify for the loan in the 2013 season, we enforced a pre-payment requirement. We required farmers to put 500KSH as pre-payment to qualify for their loans and help to begin paying down their loan. The pre-payment is the only amount that we require prior to issuing the loan. By requiring a pre-payment, we ensure that the farmers are invested in the program and committed to following through.

Group Constitutions

The development of a group constitution has been one of the key ways we ensure repayment. The constitution outlines the rules that govern how the group will operate, explains what the group is, what it is for and what the rights and responsibilities of the members are. The group constitutions are agreed upon by all the members and then reviewed by program staff.

Funeral Insurance Enrollment

As part of the loan package, all ABFSF farmers are entitled to funeral insurance. ABFSF partners with an insurance company called UAP to offer this policy. During enrollment, we share with the farmers that the purpose of the funeral insurance policy is to help cover funeral expenses in case of the death of an ABFSF participant. All costs of the funeral insurance are covered within the loan package that farmers sign up for, so there are no additional expenses to the farmer or his/her family.

Base Education Training

The base education training is the first training that is provided to our farmers after they sign their loan contracts. During this training we share with them the importance of the other trainings, and train them on how to properly space their crops, the benefits of group planting, and how to prepare their fields for the planting season. Since this year we are providing multiple crops, we have introduced a new volunteer role within the group called the crop leader. The crop leader is in charge of one crop group, and is required to attend all trainings for that crop; lead their group in the planting techniques for that crop and ensure that everyone is using proper spacing, planting and fertilizer dosages; keep safe planting materials, such as sticks and strings; and help their group to plant and care for the crop so that they get the best harvests. We recognize that with so many crops, it will be very easy for the farmers to confuse the materials and trainings for each. The crop

leader works closely with the group leaders and field officer to monitor the use of the planting techniques taught.

Procurement

We found out in early January that the MEA DAP and CAN fertilizer we had initially purchased did not meet standards for nutrient content. This was confirmed through multiple third-party evaluations. Due to this, we re-opened the procurement process and reached out to the previous vendors that provided us with quotes. MEA reimbursed us for the amount that we paid them, minus the amount that is being used for sweet potato and banana fertilizer. The remaining funds from USAID were used to purchase fertilizer from DMBL and AfriVentures (Kenya) Ltd., while the cost share funds were used to purchase fertilizer from Yara, Athi River Mining, the balance from AfriVentures (Kenya) Ltd, and Eldoret Packers.

Enrollment (Signing of Loan Contracts) and Repayment

We finalized the signing of loan contracts at the beginning of the quarter, enrolling a total of 60,182 clients. Of this, 36,711 (61%) are female members. While this enrollment season was lower due to MLND and our new product offering, we are using this opportunity to focus on making additional improvements to our program. We will focus on improving our crop trainings for millet, sorghum and beans so we can offer improved products to our farmers in future seasons.

As of project end, we collected 44.28 percent repayment on outstanding credit for the 2013 season, which is slightly lower than where we expected to be at this time. The lower repayment level is due to the major changes to our product offering and the election disruptions. Our field teams are hard at work to increase repayment levels, primarily by increasing the use of incentives with our farmers and field staff, and by focusing on higher levels of client participation in all project activities (which typically encourages farmers to repay at a good pace over the course of the season). We are starting to see a lift in our repayment rate from these strategies, and expect to reach our goal by the end of the season.

For the 2012 long rain season, we were able to end the year at 99.2%, 4.2% higher than we targeted. As we noted earlier, this is an important impact indicator for our program. Since we are providing a service to our farmers, we see the repayment rate as an indication of customer satisfaction. At a 99.2% repayment rate, we can state that our farmers are very satisfied with the services that we have provided to them. As we noted in the PMEP, the 2012 repayment would serve as a proxy for 2013 repayment due to the annual planting and harvesting cycle.

Input Delivery

Input delivery is an important and complex task that the project takes on at the beginning of each planting season. We were able to successfully deliver high quality fertilizer and seeds to 530 sites, reaching a total of 60,182 total farm families in the HR I region.

To distribute the inputs to our 530 sites, we engaged three truck companies, housed our inputs in five different warehouses, and developed a system of loading trucks in the afternoon and delivering inputs first thing in the morning. Delivery days lasted from 7 AM – 5 PM, with refresher agricultural trainings delivered to clients during the time the trucks were unloading.

In order to ensure that we delivered the correct input types and quantities to each farmer, the field teams worked closely with the logistics department to develop and implement several checklists to ensure that the exact quantity, plus a buffer, is loaded into each truck.

In addition to building in multiple levels of quality control steps throughout the process, we established a customer service hotline for farmers to call if



there were any issues. This year we also created “truck kits” that contained all the essential items that the field officers need to set up their sites for input delivery.

At the delivery sites, Field Officers arrived early to set up the location. Locations were chosen based upon their proximity to farmer groups, suitability for refresher trainings, and available space to unload and safely store the inputs until the farmers received them. In addition to the hard work of the field officers, our group leaders and mobilizers played a critical role in ensuring that all farmers were present to receive their inputs.

Planting Training (Maize, Sorghum, Finger Millet, and Certified Beans)



With the arrival of the rains in early March, 8,000 ABFSF farmer groups embarked on the arduous but rewarding task of planting their inputs. In addition to maize, this year our farmers are working in groups to employ new, improved methods of planting finger millet, sorghum, and certified beans. The field team put together a comprehensive set of new agricultural trainings, using multiple field tests and farmer trials to refine the new methods before roll-out. As with our maize trainings, all of our sorghum, finger millet, and certified bean trainings are highly participatory. After training, our field officers spent time with the groups to ensure that they were planting together and were following the methods that they were trained on.

As this is the first season that most of our farmers were planting sorghum, finger millet, and certified beans with the program, we developed innovative learning tools (described below), monitored germination rates, and encourage farmers to plant a small nursery to grow additional plants for gapping.

Innovative Learning: Crop Leader, Planting Tools, and Crop Planting Reference Cards

In order to maximize training compliance and ensure proper adoption of planting techniques, this year we had groups elect a crop leader for each crop. This crop leader was responsible to attend all trainings on the specific crop they were assigned to and serve as the group expert on the planting techniques. They were also responsible for cutting and assembling the planting strings for their specific crop that were used during planting time. In addition to having a crop leader and planting strings, our farmers went to the field equipped with crop planting reference cards and spacing sticks for the different crops. The crop planting reference cards are a condensed version of the planting techniques that the farmers were trained on earlier in the quarter, translated into the local language. The main purpose of the card was to ensure compliance with the improved planting techniques, with the goal of maximizing yields and return on investment in farm inputs. The cards used pictures and simple instructions to ensure that the farmers could easily understand them.

Focus on Customer Service

As we continue to improve our customer service to our farmers, this year during input delivery time we introduced a customer service hotline for our farmers to provide feedback on the delivery service. Our farmers were excited to have an additional venue to provide feedback beyond just their field officer. Each call is taken by a trained customer service representative, and the details of the call are filed and processed. Details are then passed onto the field team for follow-up.

Top Dressing Delivery and Training and Top-up Deliveries (Season’s 2013 Clients)

Toward the end of the quarter we delivered our top dressing training and inputs. For the training, we focused on how to do proper weeding, gapping, and placement of the CAN fertilizer to ensure for the maximum uptake by the plant. We provided the training right before we delivered the inputs for top dressing. Inputs included CAN fertilizer, additional seeds, trees, cassava cuttings, sukuma seeds, and this year, for 57% of our famers, solar lights as top ups to their loans. We were excited that so many of our farm families signed up for solar lights.

Staff Capacity Building and Group Leader Training

Continuing on the success of our Certified Trainer program in Bungoma, we rolled out the program to Nyanza with the onboarding of nine newly trained Certified Trainers. These trainers led monthly staff development trainings and led the Field Officer Advanced Leadership Course beginning in April. Our 12 New Leaders HQ participants graduated from their program in February and the training team is now developing training materials for next year. This quarter, we have focused on improvements in content, delivery, materials and guest trainers.

Group Leader Curriculum

In order to develop stronger group leaders, we developed a group leader (GL) training curriculum. The GL Curriculum will be a year-long series of trainings that will build leadership and management skills of the group leaders. Group leaders will be trained on: effective farmer enrollment and onboarding, ensuring group strength, effective communication, relationship building with the group, financial planning for smoother repayment, problem solving, development of group constitutions, and the benefit of storing grains—or as we call it, making an investment in their future.

During the project period we covered the following topics within our Group Leader Training Program: Group Strength, Communication, Relationship Building, and Financial Planning.

III. Results Achieved

During the year of the grant, the project was able to achieve the majority of its objectives, thereby creating a lasting impact to improve the lives of farmers in Western Kenya.

Below is a high level overview of the indicators; detailed results are in Appendix II:

Field Officer Recruitment—exceeded target: We brought on a total of 231 new field officers within Western Kenya and Nyanza, of which 40.7 percent are women. Through our effective recruitment, we were able to exceed the stated target for field officers for this year by 15 percent. We received stronger candidates than expected and made a decision to increase the number of field officers within certain sites as our beneficiary numbers will increase next season.

These new field officers are helping to better serve our new project beneficiaries through high quality customer service and will be our key drivers to ensure continued success of our project.

Repayment Indicator (Custom)—exceeded target: Repayment has been completed within Western Kenya and Nyanza provinces. For the 2012 long rain season, we were able to end the year at 99.2%, 4.2% higher than we targeted. As we noted earlier, this is an important impact indicator for our program. Since we are providing a service to our farmers, we see the repayment rate as an indication of customer satisfaction. At a 99.2% repayment rate, we can state that our farmers are very satisfied with the services that we have provided to them.

As we noted in our PMP, the repayment for the 2012 long rain season will serve as a proxy for our 2013 long rain season.

Number of hectares under improved technology—below target: We currently have a total of 13,602 new and continuing hectares of maize under improved technology. Of this, we have 7,345 of new hectares (13,584 target) and 6,257 of continuing hectares. We missed our target this year for new hectares under improved technology due to reduced number of clients (32,498 vs. 48,000) and slightly lower average hectares planted per farmer (0.226 vs 0.283) due to a shift from maize, the predominant cereal crop grown in the region, because of MLND, rather than performance issues.

Number of farmers or others who have applied new technologies or management practices as a result of USG Assistance—below target: Ninety percent (targeted 75%) of our farmers applied new

technology as a result of USG assistance. This breaks out to 29,248 new farmers (targeted 36,000), of which 17,842 (targeted 19,800) are female farmers, and 24,915 are continuing farmers. Overall, we exceeded the percentage of farmers who have applied new technologies or management practices, but we had a variance in our absolute numbers due to lower farmer enrollment because of MLND, rather than performance issues.

Value of Agricultural and Rural Loans—below target: The total loans that we disbursed this season to new and continuing farmers totaled \$5.587 Million, \$3.408 Million to female farmers and \$2.179 Million to male farmers. We have provided a total of \$3.017 Million in new loans (targeted \$4.284 Million) and a total of \$2.570M of continuing loans. Of this, we have provided \$1.840 Million (targeted \$2.356 Million) in loans to female farmers and \$1.177 Million (targeted \$1.927 Million) to male farmers. Our average loan amount per farmer increased this year from \$89.25 to \$92.83. Overall, our farmers took out a larger loan size, but we had a variance in our absolute numbers due to lower farmer enrollment due to MLND, rather than performance issues.

Number of individuals who have received USG supported short-term agriculture sector productivity or food security training—below target: Ninety-one percent (targeted 90%) of our farmers (54,766 farmers) were in regular attendance for our trainings. This breaks out to 29,573 new farmers (targeted 43,200), of which 18,040 (targeted 23,760) were female farmers, and 25,192 are continuing farmers (15,367 female farmers). Overall, we achieved our target percentage of farmers who received training on a variety of best practices in production, post-harvest management, and market linkages, etc. The variance in our absolute numbers was due to lower farmer enrollment because of MLND, rather than performance issues.

Percent of farmers who store maize locally for future sales (Custom)—exceeded target: We had a total of 86 percent (targeted 75%) of our farmers who stored maize locally for future sales. Overall, we exceeded our target of farmers who stored maize locally for future sales. This can be attributed to the storage campaign, increased yields, and the storage trainings that we provide to our farmers.

Value of Incremental Sales (collected at farm-level) attributed to FtF implementation (sales and metric ton)—exceeded target:

- Sales: Analysis of our 2012 Maize Storage Study indicated an increase in farmers' sales, as they were able to plant more land with high quality inputs and therefore increased their yield on the land planted. Due to this, we saw a little over a doubling of value of incremental sales in 2012 from our projected \$90 to \$189. We estimate that the project contributed to a total of \$11.370 Million of total maize sales, of which \$6.140 million is new sales (targeted \$4.320 million) and \$5.230 million is continuing sales of maize in the local market in the HR I region.
- Metric Ton: Analysis of our 2012 Maize Storage Study indicated an increase in farmers' maize production, as they were able to plant more with high quality inputs. Due to this, we saw a drastic increase in our value of incremental volume in 2012 from our projected 0.22 metric ton to 0.522 metric ton. We estimate that the project contributed to a total of 31,415 metric tons of total maize sales, of which 16,964 metric ton is new sales (targeted 10,560) and 14,451 metric ton is continuing sales of maize in the local market in the HR I region.

Gross Margin per unit of land of Maize—below target: We achieved \$692 gross margin/hectare, slightly below our target of \$750 gross margin/hectare. Analysis of our 2012 Maize Storage Study indicated the decrease in farmers' gross margin was due to lower market prices and harvests for maize than historical levels. The reduction in harvest levels were likely due to late-season effects of MLND that were not identified earlier. Overall, we missed our target due to factors that were outside of the project's control.

Prevalence of households with moderate to severe hunger—met target: Sixty one percent of our client base reported that they experienced a mild to no hunger season due to the project intervention, thus meeting our target of 60 percent. Given this, we had about 39 percent of our farmers that still experienced a moderate to severe hunger season. We are working hard to reduce this number for next year, by continuing to train on effective post-harvest technology and campaigns, such as the Tati Hadu Tati campaign, to change farmers' storage behaviors.

IV. Program Impact



The most important long term impact of the project was the establishment of the Permanent Revolving Fund. As we stated in the proposal, the funding is being used to lay the foundation for One Acre Fund to achieve its 5-year vision of serving 200,000 farm families and their 1 million beneficiaries in Western Kenya.

With the \$1.408 Million from USAID/Kenya and the matching \$1.5 Million from the Pershing Square Fund, we were able to successfully reach 60,182 farmer families, including 32,498 new smallholder farmers and their 162,490 beneficiaries in Western Kenya, into perpetuity. As the farmers continue to repay back their loans, the fund will be replenished and the smallholder farmers will be able to access the loan again the following years. The Permanent Fund is one mechanism that helps to fill the gap of allowing smallholder farmers to access credit and high quality seed and fertilizer in a timely manner.

In addition to the establishment of the Fund, the project has trained over 60,000 farmers on improved planting and storage techniques, and has been able to change storage behaviors of thousands of farmers through the Tatu Hadi Tatu Campaign. This has resulted in 61 percent of our farmers now reporting a mild to no hunger season, allowing them to be a step closer to food security and improved livelihoods. In addition to this, the project has successfully trained farmers on the importance of crop diversification for food security and income generation.

In line with the goals of USAID Forward, the project has improved staff and group leader capacity through targeted leadership trainings. Part of the cost share funds that One Acre Fund expended were spent on developing a certified trainer program in Bungoma, which was rolled out to Nyanza with the onboarding of nine newly trained Certified Trainers. These trainers lead monthly staff development trainings and lead the Field Officer Advanced Leadership Course beginning in April. We had a total of 24 participants graduate from the New Leaders HQ program and we are now developing training materials for next year.

In addition to training our field staff, we have developed a specific curriculum to develop stronger group leaders (GL). The GL Curriculum is a year-long series of trainings that will build leadership and management skills of the group leaders. Group leaders will be trained on: effective farmer enrollment and onboarding, ensuring group strength, effective communication, relationship building with the group, financial planning for smoother repayment, problem solving, development of group constitutions, and the benefit of storing grains—or as we call it, making an investment in their future.



While the project has ended as of May 8th, 2013, the impact of the funding will continue into perpetuity for the smallholder farmers in Western Kenya.

V. GLOBAL DEVELOPMENT ALLIANCE

The Pershing Square Foundation provided their commitment to the cost share of \$1.5 Million for the purchase of seed and fertilizer for the permanent revolving fund, and One Acre fund also fulfilled our cost share responsibilities of \$800,000 in in-kind labor for training and project management, procurement of additional farm inputs, and overhead cost (rent, internet, office supplies, etc.) associated with operating the project.

VI. Lessons Learned and Recommendations to USAID

Lesson Learned

During implementation, we learned quite a few very important lessons:

1. Recruiting field staff from a pool of existing farmer group leaders can lead to better hires.
2. Grain storage commitment mechanisms such as group storage pledges and "bag tags" can increase local storage and thus harvest profitability, and potentially reduce the effect of the hunger season on our farm families. Through an effective storage campaign, we can change the storage behavior of our farmer to reduce their hunger seasons.
3. It is important to diversify the number of crops that we offer within our loan package.
4. Changing the planting behaviors of our farmers is a challenge, but we feel that our training and messaging on crop diversification has been well received.
5. There is a need to continue building the capacity of our field staff and group leaders to ensure sustainability and greater reach of the program.
6. Crop leaders, crop planting reference cards, and planting tools assist in the adoption of multiple crop trainings for our farmers.
7. Effective coordination between our field teams and logistics team allowed for an efficient and effective distribution of multiple crop products to 530 sites in time for planting.



Recommendations to USAID



We don't have any particular recommendations, but are very thankful for the support of Harrigan Mukhongo, our Agreement Officer Representative, and Jayne Olando and Charity Ingweta, our Contracts Specialists. With their support and guidance we were able to successfully implement the project with limited delays.

We would like to especially thank Harrigan for providing us guidance on identifying alternative products to offer within our loan package, linking us with the Kenya Horticulture Program to develop our sweet potato training, guiding us through the development of our branding and marking, work plan, performance monitoring plan, PERSUAP, and providing us with continued guidance throughout the project period. Jayne and Charity were critical in helping us move our amendments through the system, allowing us to implement the project while remaining compliant to our award.

We would like to thank USAID for their support as they have helped One Acre Fund to catalyze growth of our core field operations, establish the Permanent Revolving Fund, and assist to grow a broader agriculture finance movement.

Annex I: Inventory of Deliverables

Deliverable	When Submitted	Approved/Date
Fact Sheet	July 20 th , 2012	Approved/ July
Quarterly Report	August 23 rd , 2012	Approved
Input Delivery Banner	October 29 th , 2012	Approved/October 29 th
Input Delivery Flier	October 29 th , 2012	Approved/October 29 th
ABFSF Brochures (Project and Enrollment)	October 29 th , 2012	Approved/October 29 th
Branding and Marking	July 24 th , 2012 Original Submission; August 16 th , 2012 (Re-submission)	Approved/August 31 st
PMEP	July 24 th , 2012 Original Submission; August 16 th , 2012 (Re-submission)	Approved/August 31 st
Work plan	July 24 th , 2012 Original Submission; August 16 th , 2012 (Re-submission)	Approved/August 31 st
Environmental Assessment Report	August 18 th , 2012	Approved/August 30 th
Quarterly Report	November 30 th , 2012	Approved
Financial reporting	November 30 th , 2012	Approved
Accruals	December 7 th , 2012	Approved
Quarterly Report	February 28 th , 2013	Approved
Financial reporting	February 28 th , 2013	Approved
Accruals	March 13 th , 2013	Approved
PERSUAP and Environmental Assessment Report	Initial submission January 25 th , 2013; Revised submission February 3 th , 2013	Approved/April, 2013
Quarterly Report	May 31 st , 2013	Approved
Financial reporting	May 31 st , 2013	Approved
Accruals	June 15 th , 2013	Approved

Annex II: Indicator Tables

Table 1: Number of new staff who become full-time employees of One Acre Fund (custom)

INDICATOR TITLE: Number of new staff who become full-time employees of One Acre Fund																
UNIT: Number			DISAGGREGATE BY: Location, gender													
Results: Hired 231 new field officers during the last recruitment period, exceeding our total target of 200. Of the 231 new field officers, 40.7% of them are women.																
Additional Criteria If other criteria are important, add lines for setting targets and tracking	Baseline		Results Achieved Prior Periods		This Reporting Period (ending 31/07/12)									End of Project Target		
			Achieved		2013 Target	Achieved		Target	Achieved		Target	Achieved		Total Target	Total Achieved	
	W	M	W	M	Total	W	M	Total	W	M	Total	W	M	Total	W	M
Total Gender: Women (W), Men (M)	0	0	0	0	200	94	137							200	94	137
Geographic Chewle	0	0	0	0		12	14								12	14
Geographic Webuye	0	0	0	0		7	4								7	4
Geographic Kakamega	0	0	0	0		14	26								14	26
Geographic Butere	0	0	0	0		14	20								14	20
Geographic Bungoma	0	0	0	0		5	5								5	5
Geographic Rachuonyo	0	0	0	0		9	7								9	7
Geographic Busia	0	0	0	0		6	8								6	8
Geographic Homa Bay	0	0	0	0		4	3								4	3
Geographic Other	0	0	0	0		23	50								23	50

Table 2: Percent of Farmers who successfully repay their loans (custom)

INDICATOR TITLE: Percent of Farmers who successfully repay their loans										
UNIT: Percent		DISAGGREGATE BY: Location								
Results: We achieved an average of 99.2% repayment for all our districts in 2012. As we noted in the PMEP, our 2012 repayment will serve as a proxy for the 2013 repayment. We see this as a very important impact indicator for our program as repayment directly correlates with farmer satisfaction in the services we are providing them.										
Additional Criteria If other criteria are important, add lines for setting targets and tracking	Baseline	Results Achieved Prior Periods	This Reporting Period 31/10/12						End of Project Target	
		Achieved	2013 Target	Achieved	Target	Achieved	Target	Achieved	Total Target	Total Achieved
	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
Target	0	0	95%	99.2%					95%	99.2%
Geographic Chewle				98.3%						98.3%
Geographic Webuye				100%						100%
Geographic Kakamega				98.9%						98.9%
Geographic Butere				99.9%						99.9%
Geographic Bungoma				100%						100%
Geographic Rachuonyo				99%						99%
Geographic Other				98.3%						98.3%

Table 3: Number of Hectares under Improved Technology or Management Policies as a result of USG Assistance

INDICATOR TITLE: Number of Hectares under Improved Technology or Management Policies as a result of USG Assistance										
UNIT: Number		DISAGGREGATE BY: New and Continuing; combined physical, chemical, management and cultural practices in one as they are all used on the land; per the definition it states: <i>If hectares are under more than one significant improvement, only select the most important in order to avoid double counting; so we will place all of our info under physical</i>								
Results: We currently have a total of 13,602 new and continuing hectares of maize under improved technology. Of this, we have 7,345 of new hectares (13,584 target) and 6,257 of continuing hectares. We missed our target this year for new hectares under improved technology due to reduced number of clients (32,498 vs. 48,000) and slightly lower average hectares planted (.226 vs .283) due to a shift away from maize, the predominant cereal crop grown in the region.										
Additional Criteria If other criteria are important, add lines for setting targets and tracking	Baseline	Results Achieved Prior Periods	This Reporting Period 30/04/13						End of Project Target	
		Achieved	2013 Target	Achieved	Target	Achieved	Target	Achieved	Total Target	Total Achieved
	Total	Total		Total		Total		Total	Total	
Target	0	0	13,584	7,345					13,584	7,345
New (Physical)			13,584	7,345					13,584	7,345
Continuing (Physical)			0	6,257					0	6,257

Table 4: Number of Farmers and others who have applied new technologies or management practices as a result of USG Assistance

INDICATOR TITLE: Number of Farmers and others who have applied new technologies or management practices as a result of USG Assistance.																		
UNIT: Number		DISAGGREGATE BY: Gender only as we only work with farmers, and we introduce improved physical, chemical, management and cultural practices at the same time.																
Results: Ninety percent (targeted 75%) of our farmers applied new technology as a result of USG assistance. This breaks out to 29,248 new farmers (targeted 36,000), of which 17,842 (targeted 19,800) are female farmers, and 24,915 are continuing farmers. Overall, we exceeded the percentage of farmers who have applied new technologies or management practices, but we had a variance in our total numbers due to lower farmer enrollment due to MLND, not performance.																		
Additional Criteria If other criteria are important, add lines for setting targets and tracking	Baseline		Results Achieved Prior Periods		This Reporting Period ending 30/04/13								End of Project Target					
	Achieved		2013 Target		Achieved		Target		Achieved		Target		Achieved		Total Target		Total Achieved	
	W	M	W	M	Total		W	M	Total		W	M	Total		W	M		
Total of Farmer, Physical, Gender: Women (W), Men (M)	0	0	0	0	36,000		29,248						36,000		29,248			
New	0	0	0	0	19,800	16,200	17,842	11,407						19,800	16,200	17,842	11,407	
Continuing	0	0	0	0			15,198	9,717								15,198	9,717	

Table 5: Value of Agriculture and Rural Loans

INDICATOR TITLE: Value of Agriculture and Rural Loans																		
UNIT: Number(Millions)		DISAGGREGATE BY: Gender only as we only work with farmers.																
Results: The total loans that we disbursed this season to new and continuing farmers totaled \$5.587 Million, \$3.408 Million to female farmers and \$2.179 Million to male farmers. We have provided a total of \$3.017 Million in new loans (targeted \$4.284 Million) and a total of \$2.570M of continuing loans. Of this, we have provided \$1.840 Million (targeted \$2.356 Million) in loans to female farmers and \$1.177 Million (targeted \$1.927 Million) to male farmers. Our average loan amount per farmer increased this year from \$89.25 to \$92.83. Overall, our farmers took out a larger loan size, but we had a variance in our total numbers due to lower farmer enrollment due to MLND, rather than performance issues.																		
Additional Criteria If other criteria are important, add lines for setting targets and tracking	Baseline		Results Achieved Prior Periods		This Reporting Period ending 30/04/13								End of Project Target					
			Achieved		2013 Target		Achieved		Target		Achieved		Target		Total Achieved			
	W	M	W	M	Total (Millions)		W	M	Total (M)		W	M	Total		W	M		
	Total of Farmer/Gender: Women (W), Men (M)		0	0	0	0	\$4.284 (M)		\$3.017 (M)								\$3.016 (M)	
New		0	0	0	0	\$2.356	\$1.923	\$1.840	\$1.177								\$1.840	\$1.177
Continuing		0	0	0	0			\$1.568	\$1.002								\$1.568	\$1.002

Table 6: Number of Individuals who have received USG supported short-term agriculture sector productivity or food security training

INDICATOR TITLE: Number of Individuals who have received USG supported short-term agriculture sector productivity or food security training																		
UNIT: Number		DISAGGREGATE BY: Gender only as we only work with farmers																
Results: Ninety-one percent (targeted 90%) of our farmers (54,766 farmers) were in regular attendance for our trainings. This breaks out to 29,573 new farmers (targeted 43,200), of which 18,040 (targeted 23,760) were female farmers, and 25,192 of continuing farmers (15,367 female farmers). Overall, we achieved our target percentage of farmers who received training on a variety of best practices in production, post-harvest management, and market linkages, etc. The variance in our total numbers was due to lower farmer enrollment due to MLND, not performance.																		
Additional Criteria If other criteria are important, add lines for setting targets and tracking	Baseline		Results Achieved Prior Periods		This Reporting Period ending 30/04/13								End of Project Target					
	Achieved		2013 Target		Achieved		Target	Achieved		Target	Achieved		Total Target		Total Achieved			
	W	M	W	M	Total		W	M	Total	W	M		W	M	Total	W	M	
Total of Farmer, Physical, Gender: Women (W), Men (M)	0	0	0	0	43,200		29,573								43,200		29,573	
New	0	0	0	0	23,760	19,440	18,040	11,534							23,760	19,440	18,040	11,534
Continuing	0	0	0	0			15,367	9,825									15,367	9,825

Table 7: Percent of Farmers who store Maize for Future Sales (custom)

INDICATOR TITLE: Percent of Farmers who store Maize for Future sales										
UNIT: Percent		DISAGGREGATE BY: N/A – it was complicated to get the data disaggregated by district, so we took a random sample of farmers within all districts.								
Results: We had a total of 86 percent (targeted 75%) of our farmers who stored maize locally for future sales. Overall, we exceeded our target for this indicator. This can be attributed to the storage campaign and the storage training that we provide to our farmers.										
Additional Criteria If other criteria are important, add lines for setting targets and tracking	Baseline	Results Achieved Prior Periods	This Reporting Period ending 30/04/13						End of Project Target	
		Achieved	2013 Target	Achieved	Target	Achieved	Target	Achieved	Total Target	Total Achieved
	Total	Total		Total		Total		Total	Total	
All Districts	0	0	75%	86%					75%	86%

Table 8: Value of Incremental Sales (collected at farm-level) attributed to FtF Implementation (SALES)

INDICATOR TITLE: Value of Incremental Sales (collected at farm-level) attributed to FtF Implementation (SALES)										
UNIT: Number (Millions)		DISAGGREGATE BY: New and Continuing;								
Results: Analysis of our 2012 Maize Storage Study indicated an increase in farmers' sales, as they were able to plant more land with high quality inputs and therefore increased their yield on the land planted. Due to this, we saw a little over a doubling of value of incremental sales in 2012 from our projected \$90 to \$189. We estimate that the project contributed to a total of \$11.370 Million of total maize sales, of which \$6.140 million is new sales (targeted \$4.320 million) and \$5.230 million is continuing sales of maize in the local market in the HR I region.										
Additional Criteria If other criteria are important, add lines for setting targets and tracking	Baseline	Results Achieved Prior Periods	This Reporting Period ending 30/04/13						End of Project Target	
		Achieved	2013 Target	Achieved	Target	Achieved	Target	Achieved	Total Target	Total Achieved
	Total	Total		Total		Total		Total	Total	
Target	0	0	\$4.320 (M)	\$6.140 (M)					\$4.320 (M)	\$6.140 (M)
New			\$4.320	\$6.140					\$4.320	\$6.140
Continuing			0	\$5.230					0	\$5.230

Table 9: Value of Incremental Sales (collected at farm-level) attributed to FtF Implementation (METRIC TON)

INDICATOR TITLE: Value of Incremental Sales (collected at farm-level) attributed to FtF Implementation (METRIC TON)										
UNIT: Number		DISAGGREGATE BY: New and Continuing;								
Results: Analysis of our 2012 Maize Storage Study indicated an increase in farmers' volume as they were able to plant more, with high quality inputs and therefore increased their yield on the land planted. Due to this, we saw a drastic increase in our value of incremental volume in 2012 from our projected .22 metric ton to .522 metric ton. Due to this we estimated that the project contributed to a total of 31,415 metric tons of total maize sales, of which 16,964 metric ton is new sales (targeted 10,560) and 14,451 metric ton is continuing sales of maize in the local market in the HR I region.										
Additional Criteria If other criteria are important, add lines for setting targets and tracking	Baseline	Results Achieved Prior Periods	This Reporting Period ending 30/04/13						End of Project Target	
		Achieved	2013 Target	Achieved	Target	Achieved	Target	Achieved	Total Target	Total Achieved
	Total	Total		Total		Total		Total	Total	
Target	0	0	10,560 (MT)	16,964 (MT)					10,560 (MT)	16,964 (MT)
New			10,560	16,964					10,560	16,964
Continuing			0	14,451					0	14,451

Table 10: Gross Margin per unit of Land for Maize

INDICATOR TITLE: Gross Margin per Unit Land for Maize										
UNIT: Number		DISAGGREGATE BY: We only captured data for maize and for male and female households.								
Results: We achieved \$692 gross margin/hectare, slightly below our target of \$750 gross margin/hectare. Analysis of our 2012 Maize Storage Study indicated the decrease in farmers' gross margin was due to lower market prices and harvests for maize than historical levels. The reduction in harvest levels were likely due to late-season effects of MLND that were not identified earlier. Overall, we missed our target due to factors that were outside of the project's control.										
Additional Criteria If other criteria are important, add lines for setting targets and tracking	Baseline	Results Achieved Prior Periods	This Reporting Period ending 30/04/13						End of Project Target	
		Achieved	2013 Target	Achieved	Target	Achieved	Target	Achieved	Total Target	Total Achieved
	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
Target	0	0	\$750	\$692					\$750	\$692
Area (hectare)				.3318						.3318
Production (90 KG)				9						9
Avg. Quality of sales (USD/90 KG bag)				\$32.57						\$32.57
Value of Sales (\$/farmer)				\$293.16						\$293.16
Purchase Input Cost				(\$63.63)						(\$63.63)

Table 11: Prevalence of households with moderate to severe hunger (mild to no hunger)

INDICATOR TITLE: Prevalence of households with moderate to severe hunger (mild to no hunger)										
UNIT: Percent		DISAGGREGATE BY: Mild to No and Moderate to Severe; all households that were surveyed were male and female								
Results: Sixty one percent of our client base reported that they experienced a mild to no hunger season due to the project intervention. Given this, we had about 39 percent of our farmers that still experienced a moderate to severe hunger season.										
Additional Criteria If other criteria are important, add lines for setting targets and tracking	Baseline	Results Achieved Prior Periods	This Reporting Period ending 30/04/13						End of Project Target	
		Achieved	2013 Target	Achieved	Target	Achieved	Target	Achieved	Total Target	Total Achieved
	Total	Total		Total		Total		Total	Total	
Target	0	0	40%	39%					40%	39%
Mild to No Hunger Season			60%	61%					60%	61%
Moderate to Severe			40%	39%					40%	39%

Annex III: Success Story

Seed and Fertilizer Permanent Fund Maximizes the Impact of Investments



Mary Achieng Ondus can't remember the last year she planted on time. Every season, she struggled to find the money to purchase the high-quality seed and fertilizer she needed to grow more maize on her half-acre of land in Busia District, Kenya. By the time she saved enough to buy the necessary inputs, the rainy season had already started. Some years she would plant without fertilizer at all. Late planting with low-quality inputs resulted in poor yields, and the 29-year-old mother of two struggled to feed her children.

Things are different for Mary this season. She recently planted her first crop with the USAID-Funded Asset-Based Financing for Smallholder Farmers Project, implemented by One Acre Fund. "Even though I didn't have enough money to buy the seeds and fertilizer I needed, the Project helped me access these inputs during the planting season when prices in the shops are higher," she explains. "I can now repay my loan slowly while my crops grow on my farm."

For more than 60,000 farmers in Kenya involved in the Project, timely access to high-quality inputs, combined with training in their proper use, will on average double their income on every acre they plant. It costs about \$25 to purchase and deliver seed and fertilizer for one family. In order for the Asset-Based Financing for Smallholder Farmers Project to distribute these inputs, the Project has established a Permanent Seed and Fertilizer Fund, which provides the capital necessary to purchase the inputs each season before being repaid by farmers.

Through its sustainable microcredit model, the Project maximizes the impact of every dollar. Once farmers repay their loans at the end of the season, the Seed and Fertilizer Fund is replenished. The \$1.408 Million granted by USAID to the Fund provided seed and fertilizer to 32,498 farm families in 2013, so that they could plant with the Project. At the end of the year, these families will produce enough surplus harvest to repay the entire \$1.408 Million – which will be used again 2014.



This cycle will continue for years to come, allowing the Asset-Based Financing for Smallholder Farmers Project to reach thousands of hard-working farm families with a single investment.

Mary is confident that she will be one of those families. She has already leased additional land from her neighbor so that she can increase the amount of land she plants with the Project next season. Only a few weeks after this season's planting, she can already see the difference that good inputs and training make. "I have never seen my farm looking so green!" she exclaims.