ABOUT FEED THE FUTURE PARTNERING FOR INNOVATION

Feed the Future Partnering for Innovation is a USAID-funded program that helps the private sector to scale and market agricultural technologies for smallholder farmers through investing in technology commercialization and knowledge exchange. The program also facilitates partnerships between USAID Missions and the private sector and provides business acceleration tools and services.

DISCLAIMER

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Feed the Future Partnering for Innovation is a USAID-funded program that helps commercialize agricultural innovations in smallholder markets by supporting public private partnerships to meet food security objectives.

The program helps the private sector to scale and market agricultural innovations for smallholder farmers through competitive awards and knowledge exchange. It also facilitates partnerships between USAID Missions and the private sector and provides business acceleration tools and services.

### The Numbers:

<table>
<thead>
<tr>
<th>939,716</th>
<th>736,070</th>
<th>32</th>
<th>69</th>
<th>$33,211,786</th>
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</thead>
<tbody>
<tr>
<td>Farmers will have benefited from Partnering for Innovation’s partnerships by September 2018</td>
<td>Farmers on 60,814 hectares have benefited from Partnering for Innovation’s partnerships to date</td>
<td>Partners worked with 43 subpartners in 16 countries in FY16</td>
<td>Technologies valued at $12.8 million have been funded through Partnering for Innovation to date</td>
<td>Has been leveraged by partners to date, with $20,011,238 invested by Partnering for Innovation</td>
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</table>
FY16 has been an exciting year at Partnering for Innovation. As some partnerships ended, others ramped up, and several new ones began. The program increased its activities with youth, launched a more integrated gender strategy, and achieved particular success in partnerships that are commercializing financial products for smallholder farmers. The program negotiated its first Mission buy-in to a technology first identified and supported by the program, with Farmforce in Guatemala, and initiated several promising relationships between partners. The program’s final funding rounds commenced in FY16, with solicitations in support of Mission buy-ins from USAID/Zambia and the Latin America and the Caribbean Bureau in Washington, and a global call for postharvest food loss prevention technologies. Partnering for Innovation also began implementing a formal knowledge management strategy that is capturing lessons learned from its partnerships and processes that will inform how USAID, Fintrac and other development practitioners, and private sector companies work together to implement more effective and sustainable public private partnerships. Cross-partner studies, custom business acceleration services, and a newly streamlined AgTechXChange are all contributing to increased knowledge capture and sharing that strengthens the private sector, benefits smallholder farmers, and makes Partnering for Innovation a nexus of knowledge in the agricultural technology and public private partnership development space.

Youth, finance, and gender were important themes in FY16. Partnerships with Mercy Corps in Guatemala and Babban Gona and Hello Tractor in Nigeria kicked off, promising to increase economic opportunities for more than 45,000 youth through savings and loan groups, farmer cooperatives, and new entrepreneurship opportunities. Banco Oportunidade de Mocambique, Opportunity International Bank Malawi, and Grameen Foundation exceeded their end-of-partnership targets of loans disbursed and/or savings or mobile money accounts opened. They disbursed 6,938 loans, opened 3,815 savings accounts, and accessed 1,311 mobile money services in FY16. These partnerships demonstrated the demand for tailored financial products targeting smallholder farmers and showed that with the right products and strategies, financial institutions can overcome the barriers to providing financial services to this segment of farmers. Of these financial services, 50 percent were accessed by women. In addition, Export Marketing Company Limited in Mozambique already met its goal for recruiting women to run its agro input shops, and has plans to recruit more women to work as entrepreneurial retailers in their input supply and equipment rental businesses. New partnerships in Benin with Tolaro and in Nigeria with Niji Foods are providing value addition opportunities in traditionally women-dominated value chains for 3,630 people through cashew and cassava peel processing, respectively.
With 10 partnerships completed, 30 in progress, and 10 in negotiation, Partnering for Innovation is well-positioned to capture, collect, and disseminate lessons learned from its partners and processes. Through cross partner studies in drip irrigation and seed as well as partner-specific studies, the program identified challenges and opportunities for companies working in those sectors. Partnering for Innovation staff participated in several events where they shared lessons learned with investors and development practitioners, including USAID, Gates Foundation, the SEEP Conference, and SOCAP 2016. Seventeen partners attended the Ag Innovation Investment Summit, a collaboration with two other USAID technology programs, where they networked and learned from each other and innovators from the Powering Agriculture and Securing Water for Food programs. The AgTechXChange, which grew from 1,200 users to 1,900 in FY16, was re-organized to provide an easier and more robust user experience. The community continues to be a source of information and a networking tool for people all over the world who are learning about or promoting technologies and partnerships in smallholder markets.

A number of partners faced challenges in FY16 that resulted in delayed milestones or changes in business strategy. Instability in Mozambique and Ukraine; drought and resultant famine in Malawi and Mozambique; and delays in the implementation of the US Food Safety Modernization Act, affecting Latin America and the Caribbean, created challenges for partners in those countries. Internal factors like staff turnover and management capacity have proven challenging for the African Agricultural Technology Foundation (AATF) in Kenya, Tanzania, and Uganda; Universal Industries in Malawi; and Bayer in Ukraine. The capacity of key production, distribution, and financial partners was also an issue for AATF and Netafim. Despite these challenges, though, Partnering for Innovation’s partners have made excellent progress in the past year, reaching more smallholder farmers than ever, and introducing a wide range of agricultural innovations in smallholder markets that are providing exciting new opportunities for both businesses and smallholder farmers. With four years behind it and two to go, Partnering for Innovation continues to create real, sustainable economic opportunities for smallholder farmers and showcase an effective model for USAID to work with the private sector in meeting its Feed the Future objectives.
Spotlight: AgTechXChange

Having created a solid foundation for an online community for people working to commercialize agricultural innovations in smallholder markets, Partnering for Innovation this year was able to take the next step in building a vibrant community of practice on the AgTechXChange. When the program’s partners were in Washington, DC for the Ag Innovation Investment Summit, they participated in focus groups that discussed what tools and channels they use to communicate within their companies and with other organizations and farmers. Part of this discussion focused on the AgTechXChange, and Partnering for Innovation was able to gain valuable feedback on the user-friendliness of the site. Based on this feedback, the program re-structured the AgTechXChange, streamlining it into three main areas:

- The Connect space that serves as a general forum
- The Grow space for matchmaking between investors and innovators
- The Learn space, a curated blog that absorbed the Partnering for Innovation blog

The intention is that users will find this new structure easier to navigate and interact with, removing barriers to user participation. Users will still be able to search by technology type and geographic region to find content that is relevant to their work or interest area. Going forward, Partnering for Innovation will focus on adding further value to the site for users, including increasing investor presence and soliciting guest posts from a wide variety of organizations that provide valuable information on different aspects of working in the smallholder market for the Learn section.
I. Technology Commercialization

The technology commercialization component of Partnering for Innovation focuses on identifying and commercializing agricultural technologies in smallholder markets by investing in off-the-shelf technology scale-up or new market entry.

<table>
<thead>
<tr>
<th>Active partnerships</th>
<th>Completed partnerships</th>
<th>Current countries</th>
<th>Program funding to date</th>
<th>Partner leverage to date</th>
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<tr>
<td>10</td>
<td>10</td>
<td>9</td>
<td>$9.9 million</td>
<td>$9.4 million</td>
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Select Highlights

- EthioChicken sold 3.2 million day-old chicks in Ethiopia, far exceeding its end-of-project (December 2016) target of 2.2 million.
- Grameen Foundation supported local microfinancing partner Musoni in Kenya in disbursing 5,980 loans, far exceeding its 3,500 target significantly ahead of time.
- The partnership with Moana Technologies ended having successfully introduced disease-free shrimp into the Bangladesh market, providing small-scale shrimp farmers a sustainable commercial source of shrimp with lower mortality rates, faster growth rates, and higher market prices than local shrimp. Through its partnership with Moana, MKA Hatchery sold 53.6 million disease-free shrimp to 1,075 smallholder farmers at a value of $304,471, and to date, has sold 150 million shrimp to 3,000 farmers.
- The fifth and final round of technology commercialization funding kicked off, resulting in three finalists providing solutions to increase smallholder farmer access to postharvest food loss prevention technology.

Upcoming

Currently negotiating with three finalists under a final round of funding targeting postharvest food loss prevention.
African Agricultural Technology Foundation (AATF)

Kenya, Tanzania, and Uganda
January 2014 – January 2018
Investment Total: $4,263,689 (FTF-P4I: $3,287,405; partner leverage: $976,284)

Target: Nearly 120,000 farmers will purchase 955 metric tons of StrigAway maize seed. To date, 47,615 farmers have purchased 381 metric tons of StrigAway.

Background

In Kenya, Tanzania, and Uganda, striga, a parasitic weed, infests 1.4 million hectares of farmland resulting in up to a 100 percent loss of maize crops. StrigAway is an herbicide-resistant maize seed developed by the International Maize and Wheat Improvement Center (CIMMYT) that is coated in imazapyr, an herbicide that restricts the growth of striga, leading to a healthier and more productive maize plant. It is the first such seed to be commercially available to smallholder farmers in East Africa. AATF is working with CIMMYT and seven local seed companies to increase StrigAway production and distribution by providing training and technical assistance, funding for establishing a network of demonstration sites, automated seed treatment equipment to safely apply the herbicide, improved packaging and labeling, and safe pesticide use training.

FY16 Progress

AATF faced significant production challenges in FY16 and as a result was not able to meet annual sales milestones. At the same time there is clear evidence of growing market awareness and acceptance of StrigAway seed in the districts affected by the weed. An extensive survey conducted by Fintrac found that the market for StrigAway is growing, with farmers reporting reduced striga infestations and equal or higher yields as compared to other seeds in use. The survey also discovered that the maize had high consumer acceptance, yielding a maize flour that was found to make heavier and sweeter ugali. This showed that despite the maize’s slightly different appearance, consumer preference would not be a barrier to commercializing the product in the region.

In addition, AATF learned important lessons that will help it and its partners more effectively market StrigAway going forward. The most important of these lessons was that agrodealers, the primary point of contact for farmers buying maize seed, need more training on the benefits and use of StrigAway in order to properly advise farmers on why they should buy it and how they should use it. AATF will start training agrodealers on these topics, using both demonstration sites and short videos that explain how the StrigAway technology works, and expects to see a boost in sales as a result.
Agro-Input Suppliers Limited

Malawi
November 25, 2015 – January 2017
Investment total: $485,680 (FTF-P4I: $273,157; partner leverage: $212,253)

Target: Agro-Input Suppliers Limited (AISL) will sell 500,000 packets of Nitrofix to approximately 80,000 smallholder farmers to increase soybean yields by 50 percent.

Background

Soil in Malawi is depleted of essential nutrients, particularly nitrogen, which are needed to grow healthy crops. Approximately two-thirds of Malawi’s agricultural farmland suffers from severe soil degradation affecting crop yields and sustainable agriculture.

AISL is working with the Department of Agriculture Research and the International Institute of Tropical Agriculture to commercialize Nitrofix, a legume inoculant that contains rhizobia that boost legumes’ natural nitrogen fixation. The inoculant was specifically developed for legumes grown in Malawi. Using the product helps these crops better harness atmospheric nitrogen by accelerating the growth of nitrogen fixation, which boosts plant yields and improves overall soil fertility. By using Nitrofix, a less costly alternative to nitrogen fertilizers, farmers save money on this important input.

To increase product availability and ensure proper use, AISL will sell Nitrofix through 25 agrodealers, set up 116 demonstration plots, and organize 50 farmer field days to show the difference between soybeans planted with and without Nitrofix.

FY16 Progress

With the assistance of Partnering for Innovation, AISL has modified its core marketing strategy to be more proactive in its distribution and sales activities. AISL hired a marketing specialist with understanding of the market and customer segment in Malawi who is working with 35 agrodealers to develop sales strategies for Nitrofix in rural areas. This has allowed AISL to educate more than 5,000 farmers on the benefits of using soybean inoculants.

By doing this, AISL has been able to create demand in the market for Nitrofix and build the capacity of distributors to sell the product, which will lead to increased business in the future. As a result of the changes to its marketing strategy, AISL will produce 100,000 sachets of Nitrofix for the upcoming season, sufficient for more than 16,000 smallholder farmers, and has developed a marketing strategy to tap into additional marketing and distribution networks such as farmer cooperatives. Insight gained from farmer interviews has already revealed potential new product offerings, including bundled input packages (inoculant and soybean seed) as well as inoculant for other crops such as groundnut and common bean.
**Flow Equity (EthioChicken)**

Ethiopia  
March 2015 – December 2016  
Investment total: $4,517,867 (FTF-P4I: $396,518; partner leverage: $4,121,349)

**Target:** EthioChicken will sell more than 2.2 million day-old chicks to approximately 400,000 smallholder farmers comprised of 80 percent women. In addition, 2,600 metric tons of poultry feed will be sold through agents or commercial supply shops.

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**Background**

Despite a tradition of poultry raising by rural populations in Ethiopia, many regions have a poultry shortage. Low productivity and high costs contribute to low levels of consumption, particularly in rural areas. Although poultry is the second most important meat product in these regions, chicken consumption in rural communities is only one third the urban rate, and the majority of smallholders in the Tigray and Amhara regions do not have access to improved chickens.

EthioChicken is commercializing improved chicken breeds and expanding its network of sales agents to reach more farmers located in rural areas. The poultry breeds that EthioChicken is introducing into Ethiopia grow 150 percent larger in the first three months and produce four times as many eggs as local breeds. The company’s agents raise chicks for the first 40 days and receive a commission for each sale thereafter. EthioChicken trains agents in how to raise the improved breeds and increases the number of chicks agents receive in a batch as they gain experience.

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**FY16 Progress**

EthioChicken surpassed its goal of 2.2 million improved day-old chick sales several months ahead of schedule, and has reportedly sold 3.2 million day-old chicks by the end of FY16. The better than expected sales demonstrated strong smallholder demand for quality, high-yielding chickens for egg laying and meat as well as the advantages to having an extensive network of sales agents close to the customer. Smallholder farmers showed that they are willing to pay more for a more productive, high-quality product. This also suggests that EthioChicken's expansion into the feed business is promising as more farmers are seeing the benefits of buying feed rather than relying on scraps and scavenging to feed their chickens. EthioChicken has invested in improved feed mill equipment, locked in supplies of local maize and soy, and anticipates meeting its goal of selling 2,600 metric tons of improved poultry feed by the end of 2016.

In addition to providing smallholders with a good source of protein and potential income, the partnership expanded a robust network of more than 500 agents that provides good jobs and incomes in rural communities. Furthermore, EthioChicken’s success proves that privatizing state-owned enterprises can work, improving outcomes for smallholders and attracting needed outside investment to the agricultural sector. With the success of this partnership and the EthioChicken model, the company will continue to expand across Ethiopia, bringing additional employment, income generation, and improved nutritional outcomes to smallholder farmers. This partnership’s success may well lead to similar projects elsewhere in Africa.
Two of Partnering for Innovation’s partners are bringing new economic opportunities to smallholder farmers through poultry breeding. EthioChicken exceeded its day-old chick sales target, selling 3.2 million chicks through a network of 500 commissioned sales agents. Access to improved poultry breeds through EthioChicken is benefitting an estimated 340,000 smallholder farmers so far with improved chickens for meat and egg production.

In Kenya, Surehatch launched the SH180, an improved and expanded automatic incubator for smallholder farmers. Many farmers found that they quickly outgrew the smaller model whose commercialization had been supported by Partnering for Innovation but were unable to afford Surehatch’s larger model. To address this gap in product offering, Surehatch developed a mid-range model with a capacity of 180 eggs. This new model was introduced to the Kenyan market in late July 2016 and initial smallholder demand has been promising.
Grameen Foundation with Musoni

Kenya
February 2016 – June 2017
Investment total: $641,106 (FTF-P4I: $389,943; partner leverage: $251,163)

**Target:** Grameen Foundation will facilitate the disbursement of approximately $1 million in new loans for 3,500 new smallholder farmers through microfinance partner Musoni.

**Background**

Although Kenya has a highly developed microfinance sector, smallholder farmers struggle to access loans that are tailored for their unique collateral and cash flow requirements. The Grameen Foundation is partnering with local microfinance institution Musoni to develop Kilimo Booster, a loan tailored specifically for smallholder farmers, with flexible terms and a customizable grace period based on the farmer’s seasonal cash flow. Grameen Foundation is supporting the sustainable growth of Musoni’s Kilimo Booster product for smallholder farmers by developing a loan application software that will streamline the loan process through shortened approval and disbursement turnaround time, and increase Musoni’s profitability by allowing it to access a larger market share of smallholder borrowers.

**FY16 Progress**

In collaboration with Grameen Foundation, Musoni has already made 5,980 smallholder loans to date totaling $2.2 million due in large part to the success of its partnership-supported marketing strategy. Musoni uses a wide variety of regionally targeted approaches such as radio advertisements, marketplace booths, door-to-door outreach, and client referrals to reach new potential clients. As a result, it has already reached a broad, geographically diverse client base, and demand for its Kilimo Booster loan product continues to grow rapidly.

In the next phase of the partnership, Grameen Foundation is helping Musoni develop and launch a new, streamlined loan application software that will drastically decrease the time needed to complete and process each loan application, thereby increasing the number of smallholder clients that can access these loans and increasing Kilimo Booster’s profitability for Musoni. Once this software is piloted, refined, and rolled out through all of Musoni’s bank branches, Musoni will be even better able to meet the increasing demand for the Kilimo Booster loan product.
MEA

Kenya
October 2015 – December 2016
Investment total: $552,039 (FTF-P4I: 432,131; partner leverage: $119,908)

Target: More than 51,000 legume farmers will apply BIOFIX to their crops on 25,000 acres of land.

Background

MEA manufactures and sells BIOFIX, a rhizobium inoculant for legumes that increases yields by up to 40 percent. Developed for specific legume varieties and for use in Kenya’s soils, BIOFIX enhances legumes’ natural nitrogen fixation and thereby eliminates the need for nitrogen fertilizers, which many farmers cannot afford. This natural, affordable product is unique in the East African market and has the potential to double crop yields for Kenya’s 30 million smallholder bean farmers.

To meet high demand among Kenyan farmers, MEA, with support from Partnering for Innovation, is increasing the amount of BIOFIX on the market by 50 percent. To do so, MEA is expanding its factory by introducing a bulk mixing production process. The upgrades increase total production of BIOFIX and reduce production time from 21 to seven days. Funding for MEA also pays for demonstration plots, farmer training, and aftersales support.

FY16 Progress

In FY16, MEA increased production of BIOFIX by upgrading its machinery, including the purchase and installation of the bulk mixing equipment. Prior to this, BIOFIX could be mixed only in small batches, limiting the total supply and the company’s ability to meet consumer demand for the product. With the increased production capacity, along with the establishment of 12 demonstration plots, the 2016 season beginning in October will test how much demand for BIOFIX was truly going unmet, as the product’s availability on the market and farmers’ understanding of it increase. This season will also act as a baseline over the next two seasons for establishing whether MEA’s production scale-up will translate into higher sales. Despite significant delays related to procuring and delivering the bulk mixing machinery and failure to achieve one milestone payout as a result, MEA is back on track to expand its business and prove the commercial potential of BIOFIX.
Mercy Corps (Farmforce)

Guatemala
July 2014 – September 2017
Investment total: $1,014,991 (FTF-P4I: 763,618; partner leverage: $251,373)

Target: At least 15,000 smallholders will benefit from Farmforce, which brings efficiencies and traceability for exporters of agricultural commodities to high value markets.

Background

Farmforce, a traceability and farm management software developed by the Syngenta Foundation for Sustainable Agriculture, is being introduced in coordination with Mercy Corps in Guatemala. Farmforce provides full electronic traceability to the farm level, providing the tracking needed for exporters to comply with the US Food and Drug Administration’s forthcoming Food Safety Modernization Act. Without access to electronic traceability, Guatemalan producers will be excluded from the US market once the act is fully implemented.

FY16 Progress

In FY16, Farmforce continued to expand both in Guatemala and to other countries in Latin America and the Caribbean. USAID/Guatemala expanded its support for the technology by committing additional funds, representing the first example of a technology commercialization partnership gaining Mission buy-in, and enabling Farmforce to expand from horticulture into the coffee value chain, providing new electronic traceability to this important export crop. Farmforce signed two new subscriptions in FY16: 1) Cooperativa Magdalena, a horticulture exporter; and 2) Guaya’b, a certified coffee exporter based in Huehuetenango. Farmforce subscriptions now cover 5,868 smallholder farmers, whose products will retain access to the US export market as a result of the electronic traceability Farmforce provides.

Farmforce also signed a second showcase partner in addition to Fair-Fruit, Asociación Chajulense, an organic coffee association. The showcase will focus on demonstrating the value of Farmforce to coffee companies. Asociación Chajulense will provide real-life evidence of how adding electronic traceability to its operations benefits its members and ensures access to high value markets. Farmforce has also been sold to producers in Haiti, Honduras, and Peru, as other associations and exporters begin to understand the importance of electronic traceability to export market access.
The Metal

Bangladesh
January 2016 – June 2017
Investment total: $597,373 (FTF-P4I: $399,953; partner leverage: $197,420)

**Target:** The Metal will establish six farm machinery hubs that integrate marketing, training, sales, and after-sales services, as well as establish and train 75 local service providers who will provide rice and wheat reaping services to 3,750 smallholder farmers.

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**Background**

The Metal, a leading agro equipment distributor in Bangladesh, is establishing farm machinery hubs for integrated marketing, education, training, and after-sales services supporting reaper commercialization.

The reaper can be operated by one individual with the capacity to reap one acre of rice or wheat in just over an hour, compared with eight hours using manual labor, and costing $12-$15 per acre, as opposed to $23 per acre manually. The Metal reaper allows for quicker harvesting resulting in more time for other postharvest activities as well as land preparation for the next crop. Most importantly, using a reaper to harvest rice and wheat reduces labor costs by 90 percent and on-farm crop losses by 10 percent. Despite these savings, less than one percent of crops are reaped mechanically in Bangladesh. Although the reapers are too expensive for individual smallholder farmers to purchase, the small size and large concentration of smallholder land provides a lucrative business opportunity for local entrepreneurs to offer reaping services. The Metal is therefore marketing reapers to local service providers who offer reaper services to smallholder farmers for a fee. The Metal also manages the post-sales maintenance of the reapers.

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**FY16 Progress**

The Metal has reached smallholder farmers through 131 *haat bazaar* (open-air market) visits, 25 demonstration plots, and mobile bus demonstration units attracting more than 3,000 people in remote communities. Mechanized harvesting delivers many benefits to the farmer, but requires behavior change to adopt this new method of harvesting. The Metal is promoting mechanization services as a cost and labor-saving approach and the past year’s outreach activities have begun to reach a critical mass of smallholder farmers. By getting the word out to smallholder farmers on the benefits of using the reaper, The Metal is also setting itself up to significantly increase sales of reapers in anticipation of the upcoming wheat season in January and February 2017 in Bangladesh.
Moana

Bangladesh
March 2014 – March 2016
Investment total: $569,356 (FTF-P4I: $398,286; partner leverage: $171,070)

Target: Moana and local partner MKA Hatchery created a market for the first disease-free shrimp broodstock in Bangladesh, with a target to sell 50 million improved juvenile shrimp to 1,000 smallholder farmers.

Background

Bangladesh produces and exports nearly 70,000 tons of shrimp each year, amounting to more than $350 million in sales and employing more than 1.2 million people. Global demand for shrimp continues to increase. Yet the 300,000 small aquaculture farms that produce most of Bangladesh’s shrimp have traditionally depended on hatcheries that provide frequently-diseased wild juvenile shrimp bred from stock harvested from the Bay of Bengal, a practice that is both environmentally unsound and detrimental to farmers. Through its partnership with Partnering for Innovation, Hawaii-based Moana Technologies introduced disease-free (specific pathogen free, or SPF) black tiger shrimp into Bangladesh through MKA Hatchery. Smallholder shrimp farmers can grow these shrimp to market size more than twice as fast as wild shrimp, and they command a significantly higher price than other varieties in the export market due to their quality and size.

FY16 Progress

Moana and its local partner, MKA Hatchery, successfully introduced and built a market for disease-free shrimp in Bangladesh as a result of the partnership with Partnering for Innovation. At the heart of this partnership’s success was Moana’s identification of a mutually invested partner in Bangladesh. MKA Hatchery shared Moana’s vision and its belief in the potential of SPF shrimp to transform the Bangladesh shrimp market. Without this mutually invested partner, Moana would have struggled to have an impact Bangladesh, but with Partnering for Innovation’s support, Moana was able to take a risk entering a new country, with a new partner, and undertake a new distribution channel for the proven technology. As part of the technology adoption process, Moana provided technicians to upgrade MKA’s production, biosecurity, and distribution facilities to create a hygienic product and a distribution system for the shrimp. During the partnership, 53.6 million disease-free juvenile shrimp were sold to 1,075 smallholder farmers, valued at $304,471. MKA continues to scale, increasing sales to more than 150 million shrimp to 3,000 farmers in the past six months.

As another indicator of success and market demand for the SPF shrimp, other Bangladesh hatcheries are now exploring adopting breeding programs of their own.
Stewards Globe

Zambia
April 2016 – April 2018
Investment total: $893,746 (FTF-P4I: $391,098; partner leverage: $502,648)

Target: Stewards Globe will work with 220 seed outgrowers, the majority women, to promote new legume and sunflower varieties. This will provide 60,000 smallholder farmers access to improved seed through sales of 600 metric tons of soy, sunflower, cow pea, groundnut, and common bean varieties.

Background

In Zambia, the seed market is dominated by companies producing maize and soy seed, leaving demand for improved legume and sunflower seed unmet. Stewards Globe, the largest supplier of legume and sunflower seeds in Zambia, is increasing production of its certified seed varieties, which include groundnut, soybean, common bean, sunflower, and cow pea, in order to increase its capacity to meet demand. Stewards Globe is using an outgrower scheme to increase certified seed production and is increasing awareness of its brand through demonstration plots, field days, and promotional materials.

FY16 Progress

Stewards Globe was signed as a partner in April 2016. In its first six months, the company developed a production and marketing plan that focuses on outreach to seed outgrowers. The plan aims to identify and prepare 220 farmers, mainly women, to produce seeds for the company. To ensure a reliable supply of seed from its outgrowers, the company will initially seek to increase the recruitment of smallholder farmers capable of producing at a commercial level. These farmers will be able to bring their seed to regional seed depots, which will hold the seed before processing and distribution.

By engaging smallholder farmers in legume seed production, Stewards Globe is providing a market opportunity for smallholder seed producers that is entirely new in Zambia. Stewards Globe will use its outreach activities to create a reliable supply chain that will allow it to meet the country’s demand for legume seed.
Store It Cold

Honduras
January 2016 – January 2018
Investment total: $547,170 (FTF-P4I: $382,740; partner leverage: $164,430)

Target: Store It Cold will sell the CoolBot to exporters, cooperatives, and associations that source from smallholder farmers, impacting between 4,000 and 9,000 smallholder farmers.

Background

Because other options for cold storage are too expensive for aggregators who source from smallholders, Store It Cold is commercializing the CoolBot, the only low-cost alternative to traditional refrigeration in Honduras. The CoolBot, a device that lowers and regulates the temperature of an insulated room by connecting to a standard window air conditioning unit to create a cold room, brings cold storage closer to horticulture production areas, resulting in extended shelf life, higher quality, and reduced rejection rates.

The CoolBot was invented by a farmer in upstate New York and originally used by small-scale farmers in the United States. Now, US-based Store It Cold is partnering with Partnering for Innovation to commercialize the CoolBot in Honduras, where a typical refrigeration unit can cost as much as $30,000 – too expensive for cooperatives and associations that buy directly from smallholder farmers. The CoolBot will cost one-tenth of the cost of other current market options, allowing for more small consolidators to improve the handling and transport of fresh products along the value chain.

FY16 Progress

At the core of this partnership is the introduction and commercialization of an established technology into a new and different market. With a notable track record and significant success commercializing the CoolBot for small-scale farmers in the US, Store It Cold needed to adapt its marketing approach for Honduras to market, promote, and educate a new customer base in a Spanish-speaking country.

As is key to marketing and promoting a technology for the first time, Store It Cold recognized the need to establish a knowledgeable and well trained staff with an understanding of the market and customer segment in Honduras. Store It Cold worked with PartnerHero, a Honduras-based consultancy company, to set up in-country operations and hire local staff. Store It Cold now has an office in San Pedro Sula with technical, operations, and sales teams, and has translated its website, marketing materials, and product guides into Spanish and developed an instructional assembly video in Spanish. The team also made further progress by successfully shipping its first batch of CoolBots to Honduras to prepare the local inventory, and worked with the USAID-ACCESS to Markets project, a Feed the Future value chain project, to select demonstration plot partners and identify market linkages.

Adapting to the local context has allowed Store It Cold to start developing sales leads, laying the groundwork for the CoolBot’s commercial introduction into Honduras. At one local trade show, Store It Cold obtained more than 70 sales leads. Feedback from interested customers has also encouraged the company to consider new ways of offering their product to make it more appealing to consumers, such as bundling it with an air conditioning unit and insulation to make a complete cold storage unit.
Zamorano University
Honduras
April 2015 – January 2017
Investment total: $652,198 (FTF-P4I: $393,932; partner leverage: $258,266)

**Target:** Zamorano University will produce and sell its beneficial nematode product, NemaPower, to more than 9,000 smallholders who are farming 25,000 hectares of land in Honduras.

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**Background**

Zamorano University is producing beneficial nematodes to control insect infestations in select horticultural crops. Known as NemaPower, this biological pest control product costs less than chemical pesticides and reduces infestations by as much as 98 percent in six months. Demand for effective biological pest control solutions like NemaPower has been increasing rapidly in Central America, especially from smallholder coffee producers. Through the Partnering for Innovation-supported scale-up of its biocontrol laboratory, Zamorano will reduce production time from 55 to 12 days, increasing the annual supply of NemaPower by a factor of 20 or more above current levels. Zamorano will also identify a commercial distributor in order to market the product in Honduras and later in other Central American countries such as Guatemala, El Salvador, and Nicaragua.

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**FY16 Progress**

A first step in Zamorano’s commercialization of beneficial nematodes was increasing its production capacity to a point where it could attract a commercial distributor and begin to market the product nationwide. Over the past year, Zamorano completed its production facility’s scale-up by remodeling and procuring new equipment that allows it to produce the quantities of NemaPower necessary to provide samples of its product to potential distribution partners and start supplying a commercial distributor beginning in October. Three thousand doses will be sold by the end of 2016. Securing a distributor for the university’s product will bring NemaPower to the commercial market by the end of this partnership.
Completed Partnerships

Compatible Technology International has sold 505 pearl millet thresher and grinders since introducing these products into Senegal with Partnering for Innovation’s support, including 421 since the end of the partnership.

MKA Hatchery in Bangladesh, with Moana, has sold 96.4 million disease-free shrimp for $469,702 since the end of the partnership with Partnering for Innovation in March 2016, in addition to the 53.6 million sold for $307,471 during the partnership.

In Rwanda, Purdue University and EcoPlastics have sold 116,545 PICS bags to date including 92,429 bags post-partnership, benefiting 58,259 smallholder farmers.

In Kenya, Purdue University with Bell Industries has sold 835,161 PICS bags to date, including 774,445 post-partnership, benefiting 208,804 farmers.
Access to finance and banking services is a key barrier for smallholder farmers looking to increase their production. Partnering for Innovation is working with several microfinance institutions to break down these barriers by offering innovative loan products and using new strategies for reaching rural farmers with banking services. In FY16, with funding support from the program, Banco Oportunidade de Mocambique opened savings accounts for 5,332 farmers, far exceeding its milestone target of 1,500 farmers. Targeted training in good agricultural practices and financial literacy has resulted in farmers understanding the benefits of savings accounts and other financial products that the bank offers. Opportunity Bank Malawi disbursed 483 agriculture loans, of which 60 percent went to women. In 2016, Musoni, Grameen Foundation’s local partner in Kenya, issued more than 5,000 loans through the Kilimo Booster platform. Sixty-five percent of the loans were disbursed to women and 14 percent of the farmers receiving the loans earn less than $2.50 a day, indicating that with Partnering for Innovation support Musoni has been able to expand financial services for inputs to a new group of farmers.
2. Mission Partnerships

*Partnering for Innovation provides USAID Missions with a more efficient way to engage the private sector by identifying and managing public-private partnerships that support Mission agriculture and food security goals.*

<table>
<thead>
<tr>
<th>Active partnerships</th>
<th>Completed partnerships</th>
<th>Current countries</th>
<th>Program funding</th>
<th>Partner leverage</th>
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**Select Highlights**

- In Mozambique, Banco Oportunidade de Mocambique disbursed 476 loans to soybean and sesame farmers (760 to date), and opened 1,352 savings accounts for a total of 5,332, far exceeding its milestone requirement of 1,500 farmers opening an account. It also provided financial literacy training to 9,026 people and good agricultural practices training to 5,151 smallholder farmers.

- Opportunity International Bank Malawi disbursed 482 loans, established 2,463 savings accounts (5,692 to date), provided mobile money services to 1,311 farmers (8,900 to date), and trained 4,537 farmers in good agricultural practices and financial literacy. Sixty percent of the farmers receiving training and benefiting from the financial services are women.

- Export Marketing Company Limited in Mozambique operationalized 18 hubs and 36 input and mechanization shops and bought more than 70,000 metric tons of commodities from more than 6,000 smallholder farmers.

- The solicitation with USAID/Zambia resulted in five finalists and the solicitation with USAID’s Bureau for Latin America and the Caribbean in two finalists that are now undergoing due diligence by Partnering for Innovation staff, with awards anticipated by December 2016.

**Upcoming**

Currently negotiating with five applicants in Zambia and two in Latin America and the Caribbean.
Benin’s strategy for developing its agriculture sector focuses on promoting entrepreneurship; strengthening value-added activities; obtaining investment that will establish the infrastructure needed for a competitive agriculture sector; and diversifying agricultural products. With a focus on smallholder farmers, particularly women, USAID supports partnerships in developing Benin’s agriculture sector to spur economic growth that increases productivity, employment, and incomes while reducing hunger, poverty, and malnutrition. USAID/Benin and Partnering for Innovation’s goal is to work with for-profit private sector partners to promote agricultural development by leveraging the expertise of commercial partnerships to benefit smallholder farmers in productive and profitable ways.
**Tolaro**

Benin  
May 2016 – May 22, 2018  
Investment total: $1,610,034 (FTF-P4I: $772,514; partner leverage: $837,520)

**Target:** Tolaro will source raw cashews from 3,200 smallholder farmers and provide agronomic training to these farmers; assist them to become organic certified; pay Fair Trade certified prices for raw nuts; and provide them with equity ownership in Tolaro by issuing shares in their new processing company.

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**Background**

More than 40 percent of the world’s cashew nuts are grown in West Africa but more than 90 percent of the crop is exported without any value addition such as shelling, roasting, seasoning, and packaging. Benin’s exporters and smallholder growers are missing out on significant value added income that would result from in-country processing. Tolaro is establishing an organic and Fair Trade certified cashew roasting, seasoning, and packaging plant to sell retail quality cashews to international markets.

In creating an equity ownership model, Tolaro is setting itself apart from other cashew buyers in Benin and offering a unique opportunity to smallholder farmers. By making smallholders into stakeholders, Tolaro is not only providing additional benefit to farmers, it is also creating loyalty to Tolaro among these farmers. The intent is that with the incentive of being a stakeholder, Tolaro’s farmers will maintain motivation to produce and sell high-quality cashew nuts to Tolaro. Furthermore, the stakeholder model is designed to ensure an equitable partnership with a smallholder farmer base and if successful, could serve as an example for other companies engaging smallholder farmers.

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**FY16 Progress**

To date, Tolaro has developed a marketing plan for targeting international buyers for their processed cashew product. It has also completed a smallholder shareholder model that is unique to both Benin and the global cashew industry. Under the proposed plan, Tolaro will offer its smallholder farmer suppliers 10 percent of profits from seasoned and roasted nut sales. Tolaro has designed guidelines and policies for both its own business and the cooperatives it sources from for this shareholder model that will benefit 3,200 farmers organized in an existing cooperative in northern Benin.
Guatemala has tremendous potential for expanding its agricultural production as a major exporter to the US and European Union of non-traditional crops such as snow peas, green beans, and baby vegetables. Yet food insecurity and malnutrition levels remain high, as many smallholder farmers lack access to improved technologies and technical assistance, as well as market access, that would improve production and incomes. In addition, the lack of economic opportunities has led to high levels of youth migration out of the country. Partnering for Innovation is working with USAID/Guatemala to engage private sector partners that can expand commercial access to transformational agricultural inputs and technologies for smallholder farmers and generate sustainable, long-term employment opportunities for youth in agriculture.

To date, 2,027 farmers have been trained through partnerships in Guatemala.
Mercy Corps with Fair-Fruit

Guatemala
March 2016 – September 2018
Investment total: $1,939,108 (FTF-P4I: $1,366,963; partner leverage: $572,146)

Target: More than 1,000 youth will access credit through savings and loan groups. In addition to credit, youth will receive training in agricultural technologies that will boost productivity and empower them to be entrepreneurs in the Western Highlands of Guatemala.

Background

With limited education and employment opportunities at home, many youth in Guatemala seek to migrate to the US. Mercy Corps is working with Guatemalan exporter Fair-Fruit to organize youth savings and loan groups in Guatemala’s Western Highlands. Lack of access to credit further constrains entrepreneurship and income generation potential among youth. Unlike other savings and loan groups, participating youth are encouraged to purchase agricultural technologies and learn good agricultural practices to improve their farm productivity and income potential. In addition, Mercy Corps is engaging Rana Labs, a digital media agency, to train youth on the use of basic smartphone technologies to produce videos on good agricultural practices, which will serve both for extension training and also promote the benefits of youth savings and loan groups.

FY16 Progress

In the five months since this partnership began, Mercy Corps has established a model for youth to participate in youth savings and loan groups. Having developed a strategy to recruit youth from new and existing associations, Mercy Corps is employing social media, videos, and youth exchanges to disseminate and share information on the benefits of joining these groups. For the first time, youth will have access to credit exclusively for agricultural technologies that, along with training, will boost their productivity and provide them with formal market connections with horticulture exporters.

In recognizing the value of supporting the next generation of producers, local Guatemalan horticultural exporter Fair-Fruit is actively engaged in this project. To date, Fair-Fruit has identified and established six youth groups totaling 120 members that will have direct contracts with the exporter for a guaranteed market. Fair-Fruit is establishing demonstration plots within each of the associations to demonstrate the most promising technologies by crop.

Additionally, subpartner Rana Labs created and disseminated two promotional videos to explain how the youth savings and loan groups work in order to attract other youth to join. While shooting footage in the field with Fair-Fruit youth, the Rana Labs team held trainings on basic video production. Formal training on video production is underway and, to date, 30 youth have been trained with two additional trainings to be held by the end of 2016 for an additional 60 youth. The purpose of the video trainings is to attract youth to savings groups and to capitalize on this technical training to generate new extension content to share on social media.
Popoyán

Guatemala
June 2015 – July 2017
Investment total: $4,249,685  (FTF-P4I: $2,107,384; partner leverage: $2,142,301)

Target: Popoyán will train more than 3,000 smallholder farmers in integrated pest management, stimulating sales of $130,000 to smallholders of biological pest control products that reduce risk of production loss.

Background

With key export markets requiring reductions in the use of agrochemicals, there is a growing demand for biological solutions. In addition, demand for alternatives to traditional pesticides is growing since chemical pest products are becoming less effective, are damaging soil health, and are dangerous for humans if used incorrectly. To address the growing interest in biologicals, Popoyán, a leading agriculture input supplier, is scaling up production, marketing, and sales of beneficial insects and biological pest control products.

FY16 Progress

Popoyán conducted a number of marketing activities over the first year aimed at increasing sales of its biological pest control products. To adapt its product to smallholder farmers, it conducted focus groups resulting in a redesign of its biological products into lower cost, single use packets that are more easily adoptable by farmers, both in terms of affordability and use. To generate demand among smallholder farmers, Popoyán established 50 demonstration plots and conducted farmer field days where 2,237 smallholders were trained on the benefits and uses of its biological pest control products. It also identified and trained 298 lead farmers, exceeding its original target by 25 percent. Popoyán successfully attracted youth farmers, who Popoyán is finding to be more likely to try the new technology because these are safer to use and more environmentally friendly for their communities. It also started training exporters on the benefits of biologicals since exporter requirements influence farmer behavior more than Popoyán’s own marketing.
Servicios de Post-Cosecha

Guatemala
May 2016 – August 2018
Investment total: $3,162,828 (FTF-P4I: $1,681,270; partner leverage: $1,481,558)

Target: Servicios de Post-Cosecha will improve access to quality potato seed to more than 1,400 producers, mostly youth, which will increase productivity and incomes.

Background

Guatemala is Central America’s largest producer of potatoes yet only 5 percent of farmers use certified seed, providing a market opportunity for Post-Cosecha to introduce new varieties sold under its Papais brand. Post-Cosecha, with technical support from the International Potato Center (CIP), will establish a laboratory, nursery, and greenhouse to produce certified seed in the Western Highlands. Additionally, Post-Cosecha and local partners Dayco and Asociación de Organizaciones de los Cucuhmatanes (ASOCUCH) will recruit and train seed outgrowers to grow certified seed and will establish direct market access to buyers of the improved seed. Post-Cosecha will also establish a permanent potato seed laboratory in the Western Highlands.

FY16 Progress

Post-Cosecha was signed as a partner in May 2016, and the company is in the process of finalizing the purchase of land for seed production and constructing facilities to grow seedling potatoes in Feed the Future zones of the Western Highlands of Guatemala.
“The Feed the Future Partnering for Innovation funding mechanism is an interesting example on how explicit Mission-level guidance can influence youth program design. Partnering for Innovation with USAID/Guatemala held public consultations in the Western Highlands to identify constraints facing youth and encouraged dialogue on how the private sector could generate sustainable opportunities. As a result, Partnering for Innovation developed a solicitation process encouraging applicants to propose activities with the goal of generating sustainable economic opportunities for youth in the form of employment and increased income. The solicitation has specific requirements implementing partners need to contemplate, including assessing youth impact, sustainability, and partnerships with the private sector as a way to encourage a market-driven approach to attracting youth engagement in agriculture.”

Despite decades of peace and stability, Malawi remains poor and the economy heavily reliant on subsistence agriculture. Underdeveloped markets and low agricultural productivity pose barriers to growth and poverty reduction. Small land holdings, a poorly developed commercial seed sector, weak agricultural extension services, limited access to finance, and other policy constraints hinder agricultural development. USAID/Malawi is working with Partnering for Innovation to address these challenges by accelerating private sector engagement; identifying and scaling up agricultural technologies for smallholder farmers; providing technical assistance to evaluate Mission and private sector partnership needs; identifying business models for private sector engagement; and reducing the time it takes to implement public private partnerships.

To date, 16,630 farmers are using new technologies, 7,313 farmers have been trained, and 482 are receiving credit with loans valued at $41,282 through partnerships in Malawi.
Opportunity International Bank Malawi

Malawi
March 2015 – July 2017
Investment total: $2,568,265 (FTF-P4I: $1,245,351; partner leverage: $1,322,914)

**Target:** 5,000 farmers will receive loans and mobile money services, 7,000 smallholder farmers will open savings accounts, and at least 10,000 farmers will receive training in good agricultural practices and financial literacy to support loan repayment.

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**Background**

Ninety percent of Malawians are engaged in agriculture, yet sixty percent have never accessed any formal financial products or services that could increase agricultural production. Without access to banking services, Malawi’s farmers struggle to invest in agricultural inputs such as seed and fertilizer to increase their productivity and earnings.

OIBM is working with Opportunity International and Catholic Relief Services to provide groundnut, soybean, and orange-fleshed sweet potato farmers in Malawi with banking services including loans. To make these services more accessible and to improve loan repayment, the project will train groups of farmers in good agricultural practices and financial literacy. No less than 30 percent of the trainings and financial services will directly benefit women.

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**FY16 Progress**

Working with Catholic Relief Services, OIBM has developed an effective training methodology for smallholder farmers on good agricultural practices and financial literacy that is specifically focused on OIBM’s target value chains and includes strategies for incorporating women. Training is a key element in OIBM’s efforts to expand its portfolios into new geographic areas and value chains where smallholder farmers are the main producers.

To date, OIBM has disbursed 482 loans, established 5,692 savings accounts, provided mobile money services to 8,900 farmers, and trained 7,203 farmers in good agricultural practices and financial literacy. Sixty percent of the farmers receiving training and benefiting from the financial services are women. The number of women benefiting from the trainings and financial services is particularly important for the bank because women are typically more active clients than men. Because of the initial success of the program, OIBM is developing plans to embed this training model into its service provision post-implementation of this award.
Rab Processors

Malawi
March 2015 – July 2017
Investment total: $1,465,905 (FTF-P4I: $732,952; partner leverage: $732,953)

Target: Rab Processors will procure more than 10,000 metric tons of agricultural commodities through three rural marketing and storage facilities, benefiting 9,000 smallholder farmers. The Agricultural Commodity Exchange for Africa (ACE) will provide community outreach and training on warehouse receipts to 15,000 smallholder farmers.

Background

Rab is working with ACE to strengthen the soybean, groundnut, maize, and pigeon pea value chains by establishing three rural marketing and storage facilities (SRAMs) and a warehouse receipts program to expand smallholder farmer access to markets, leading to better prices for their production. Farmers can store their commodities at a SRAM for up to six months, during which time they can sell the commodity either to Rab or to another company. Upon depositing their commodity into the shared storage facility, farmers receive a receipt specifying the amount and quality of the product, which is then used on withdrawal of the product to determine how much of the commodity the farmer is due. Upon withdrawing their product for sale, the cost of storage services is deducted by Rab.

Through this system, smallholder farmers can remove and sell their commodity when prices are more favorable than they are at harvest. In addition, by attaching the warehouses to its existing agriculture supply shops, Rab is facilitating smallholder farmer access to inputs as well.

FY16 Progress

In FY16, Rab finished constructing two rural agro commodity marketing and storage facilities (SRAMs) in Mchinji and Dedza. The SRAMs allow Rab to increase the volume of commodities it purchases within Malawi and offer value-added services such as warehouse receipt financing to incentivize farmers to sell Rab their commodities. The warehouse receipt system has already been operationalized at the Mchinji SRAM and warehouse receipts issued to smallholder farmers for more than 14 metric tons of commodities that have been stored through this system. In partnership with the Agriculture Commodity Exchange, more than 7,000 farmers have benefited from warehouse receipts training. Rab will finish constructing the Kasungu SRAM before the end of this year, allowing it to scale its offtaking services and create viable end market opportunities for farmers in that region.
Universal Industries

Malawi
February 2015 – July 2017
Investment total: $2,229,358 (FTF-P4I: $1,072,496; partner leverage: $1,156,862)

Target: At least 8,000 smallholder farmers will produce and sell a total of 8,000 metric tons of orange-fleshed sweet potato (OFSP) to Universal Industries, which will develop six OFSP products and commercialize at least four of these, reaching sales revenue of $136,000.

Background

Universal Industries, a leading snack and beverage producer in Malawi, is working with the International Potato Center (CIP) to develop a commercial market for OFSP food products. Production of OFSP in Malawi has increased in recent years, but it is still perceived mainly as a subsistence crop. To build a market for this nutritious food, Universal is commercially launching several OFSP-based products and is building a sustainable supply chain by providing technical assistance, improved vines, and a formal market to 8,000 sweet potato farmers. Farmers will benefit from higher prices as well as a guaranteed market and Universal will develop a stable domestic raw material supply chain.

FY16 Progress

Universal Industries has developed a strategy for bringing its commercial products to market, including an analysis of the target market, anticipated sales, price points, retail and distribution plan, and marketing approach. Much of this work was done in conjunction with a product development and marketing consultant funded by Partnering for Innovation who provided recommendations on how Universal could strengthen its brand diversity and image in the market.

The investment in developing its approach to marketing, promotion, and distribution has paid off, with two OFSP-based products being commercialized so far: potato chips and bread, which have generated more than $5,000 in sales. The demand in the market for these products has far exceeded Universal’s ability to supply, which is evidence that there is a viable market opportunity. Based on consumer taste tests, Universal Industries is planning to commercialize OFSP juice and additional flour-based products such as cookies as a next step. It is also working with CIP and other local partners to address the constraint of insufficient sweet potato production at the farm level to keep up with growing demand.
Recognizing the benefits and opportunities of employing women and specifically marketing to women customers, several of Partnering for Innovation’s partners are incorporating women into their business development strategies. Export Marketing Company Limited has hired 30 women to run its new input shops in Mozambique, offering women the opportunity to increase their incomes while providing greater access to inputs for smallholder farmers, and it intends to hire an additional 16 beyond the partnership goal of 30.

Njij Foods is training 750 women cassava peelers in Nigeria to use the company’s new equipment for making high-quality poultry feed mash for sale to feed mills, offering an income generation opportunity from what was previously a waste product.

Opportunity International Bank Malawi is targeting women smallholder farmers with its financial products, filling a gap in financial services that poses a significant obstacle to smallholder farmers. Of the 483 agriculture loans it has disbursed so far, 48 percent were disbursed to women. In addition, more than 3,000 farmers have been trained in good agricultural practices and financial literacy, of whom approximately 60 percent are women.
Despite Mozambique’s recent economic growth and its strategic location in southern Africa, it still faces a number of challenges in developing its agriculture sector and reducing hunger. The most common challenge facing most farmers is the lack access to quality inputs and markets. The Mozambican agricultural market has an undeveloped agro-inputs distribution system, with very few agriculture supply shops in rural areas. The few inputs that are commercially available are found in distant urban centers, inaccessible to most farmers. To address these challenges, USAID/Mozambique is working with Partnering for Innovation to accelerate engagement with the private sector, identify and scale-up agricultural inputs, and identify business models and approaches for private sector engagement. It also aims to reduce partnership development time, in order to more efficiently work with the private sector.

To date, 28,004 farmers are using new technologies on 31,328 hectares, 10,916 farmers have been trained, and 746 are receiving credit with loans valued at $111,401, of which 26 percent are women, through partnerships in Mozambique.
Export Marketing Company Limited

Mozambique
January 2015 – July 2017
Investment total: $20,101,906 (FTF-P4I: $6,458,484; partner leverage: $13,643,422)

Target: Nearly 23,000 smallholder farmers will access storage facilities, market opportunities, quality inputs, mobile data, and mechanized equipment through 23 agro hubs. Twenty-three entrepreneurs, two-thirds women, will manage new retail outlets selling inputs and renting equipment.

Background
The Mozambican agricultural sector has a weak agro input market and limited number of commercial offtakers. Thus, smallholder farmers are forced to sell through a network of traders resulting in low returns for their crops and insufficient earnings to reinvest in their production systems.

EMCL is one of the largest buyers of pigeon pea, sesame, soybeans, groundnuts, and common beans in Mozambique. With Partnering for Innovation’s support, EMCL is providing farmers with new storage options, quality agro inputs, and small-scale equipment rental through a network of storage and retail hubs. Each hub consists of an agro input retailer, farm equipment services, and a storage facility. The hubs will allow smallholder farmers to either sell their grain on the spot to EMCL or store it free of charge for 90 days so they can speculate on receiving a better price at a later date. EMCL partner Techno Brain has developed a mobile platform with weather forecasts, commodity pricing, pest control advice, and other useful information that can be accessed for free through one of Mozambique’s mobile carriers. This partnership will both increase EMCL’s access to exportable crops and provide smallholders with options for crop storage and sale, improved inputs, and mechanization to improve their productivity.

FY16 Progress
EMCL has operationalized 18 hubs and 36 input and mechanization shops and has bought almost 70,000 metric tons of commodities from more than 15,000 smallholder farmers. By sourcing larger volumes of commodities, EMCL is able to expand its processing and exporting operations and create the infrastructure needed to provide storage, input, mechanization services, and SMS services to smallholders. An additional five hubs and 10 input and mechanization shops will be constructed by mid-February 2017, which will allow it to further expand its sourcing operations into additional Feed the Future zones of influence.
Selecting and training agrodealers and FBAs was an important first step to developing an input distribution network and generating sales. Twenty agrodealers and 100 FBAs have collectively reached more than 3,400 farmers with input supplies, technical assistance, and purchasing farmers’ produce. Seventy percent of the FBAs and agrodealers have already reached profitability, which indicates that this distribution model is beginning to scale.

Lusosem, in an effort to scale further, is also considering financing proven FBAs and agrodealers so they can sell larger volumes. Lusosem has also actively engaged in more than 70 community fairs and is building relationships with complementary input suppliers including agrodealer TECAP, and seed companies such as Phoenix Seeds and Oruwera.

Background

Lusosem, a Portuguese commercial seed and input supplier, is partnering with iDE and HUB Assistancia Technica e Formacao to enter the Mozambican market to distribute and sell high-quality seeds and other inputs. They are supporting the opening or expansion of 40 agrodealers and will train 200 advisors to provide extension services to smallholder farmers. The partnership aims to develop a robust and sustainable market-based system of agrodealers in the heart of rural Mozambique where communities are traditionally underserved. The FBAs receive ongoing training to ensure they are able to provide quality technical assistance and support to 10,000 farmers, thus developing a market for their services and inputs supplied by Lusosem. FBAs receive a commission from the agrodealer for their input sales to smallholder farmers, and training fees from farmers and associations. The partnership is also helping Lusosem invest in lower cost distribution strategies using local seed and input suppliers as a result of a drastic devaluation of the local currency.

FY16 Progress

Mozambique
November 2014 to July 2017
Investment total: $2,229,162 (FTF-P4I: $1,098,149; partner leverage: $1,131,013)

Target: 40 agrodealers and 200 commercially viable farm business advisors (FBAs) will supply agro input products and services to 10,000 smallholder farmers.
NCBA CLUSA with Phoenix Seeds and Oruwera
Mozambique
November 2014 – July 2017
Investment total: $3,341,079 (FTF-P4I: $1,527,810; partner leverage: $1,813,269)

Target: 230 metric tons of improved seed will be produced and at least 10,000 smallholder farmers will access improved agricultural inputs and value-added services.

Background

The Mozambican agriculture market has a weak agro input distribution network and smallholder farmers have a low level of technical understanding of good agricultural practices. NCBA CLUSA, Oruwera, and Phoenix Seeds are partnering to improving access to quality inputs and services for smallholders by providing extension services, land preparation and harvest services, and by improving seed production and distribution. Oruwera and Phoenix Seeds are developing ready-to-go input packages including seed, fertilizer, and inoculants for sale to smallholders. With Partnering for Innovation’s support, Phoenix and Oruwera are expanding into new geographical areas and value chains. However, currency devaluation, civil strife in key distribution points, and government subsidized inputs have affected commercial input suppliers’ ability to effectively distribute and sell certified seeds in Mozambique.

FY16 Progress

Working with a seed marketing consultant, Oruwera and Phoenix Seeds have developed cost-effective distribution and sales strategies to reach smallholder farmers including selling their seeds at local fairs and through a hub and spoke system of distributors that supply smaller stores and markets in nearby areas. Identifying and improving agronomic sales agents’ skills has also improved marketing efforts and sales. As a result of these investments, Phoenix Seeds has sold 31 metric tons of improved seed to 2,630 farmers and generated additional revenue of $33,180. As their understanding of the local smallholder seed market improves, both companies continue to identify ways to expand distribution channels and reduce costs so that they can reach more unserved production areas in the regions. They are also looking at ways to work with other companies, including seed company Lusosem and agro input distributor TECAP.
Opportunity International

Mozambique
November 2014 – July 2017
Investment total: $3,713,714 (FTF-P4I: $1,754,072; partner leverage: $1,959,642)

Target: At least 5,000 smallholder farmers will gain access to loans and other banking services as well as training in good agricultural practices and financial literacy, and 3,000 smallholder farmers will open savings accounts or access M-PESA mobile money services.

Background

Only 2 percent of rural households receive agricultural loans in Mozambique. Furthermore, more than 30 percent of rural Mozambicans live more than three hours from a bank, making it extremely difficult to access financial services such as saving accounts and loans. Many smallholders must borrow from unregulated moneylenders at exorbitant interest rates or sell their future harvest early at significantly reduced value to receive cash.

Opportunity International, through a private local financial services provider, Banco Oportunidade de Mocambique (BOM), is providing sesame and soybean farmers with financial and banking services including loans, savings accounts, and mobile money services. By providing farmers with training on good agricultural practices and financial literacy, they are improving the potential for loan repayment rates. Opportunity International is specifically targeting women farmers for training and financial services.

FY16 Progress

In this past year BOM identified local extension service providers that developed strategies for overcoming value chain-specific constraints and conducted trainings in good agricultural practices and financial literacy. The trainings in good agriculture practices and financial literacy allowed the bank to provide value added services and build farmers’ capacity to benefit from the financial services being offered. The extension service providers have also created linkages with other value chain actors such as offtakers (EMCL) and input suppliers (Phoenix Seeds) to ensure that farmers have the services they need. As a result of their training and outreach, BOM has disbursed 760 loans to soybean and sesame farmers. In addition, more than 7,605 farmers have been trained in financial literacy and good agricultural practices, and 5,332 savings and mobile money accounts have been opened.
Tecnologia e Consultoria Agro-Pecuaria (TECAP)

Mozambique
August 2016 – July 2018
Investment total: $4,624,934 (FTF-P4I: $2,293,231; partner leverage: $2,331,703)

Target: Through development of a network of agrodealer farmer houses, TECAP will be able to reach 18,750 farmers with improved inputs and access to mechanization services while generating at least $2.8 million in sales of its agricultural inputs and mechanization services.

Background

The Mozambican agricultural market has a weak agro inputs distribution network, leaving most farmers without access to improved seed, fertilizers, pest management products, or equipment. TECAP is expanding its Maputo-based service center, which it calls a “farmers house,” to three major agriculture producing regions: Tete, Nampula, and Manica provinces. These farmers houses will be based in the main city in each province, offering agricultural inputs and mechanization services. TECAP will also establish a network of 50 agrodealer shops, 20 franchisees, and train 250 agriculture development agents to accelerate its last mile distribution plan in small towns and villages in each province.

FY16 Progress

TECAP began its project in August 2016 and has completed its work and strategic plan and farmers house designs. The strategic plan is an in-depth study that explores the current market competition for agricultural inputs and mechanization services, customer segmentation by farm size, and financial and sales projections for inputs and mechanization services over the next three years. This is instrumental to TECAP successfully entering new markets and will allow it to immediately begin selling once the farmers houses are operational. Over the next year, TECAP will work with iDE to identify and train franchisees, agrodealers, and agriculture development agents to establish agricultural input distribution into more remote smallholder markets.
Txopela
Mozambique
August 2016 – July 2018
Investment total: $1,634,439 (FTF-P4I: $847,735; partner leverage: $786,704)

Target: With Txopela’s support, Sociedade Beneficiamento Sementes (SBS) will produce and sell 450 metric tons of improved soy, pigeon pea, sesame, and common bean seeds. It will provide improved seed and other inputs, training, and offtaking services to 3,600 smallholder farmers, 20 percent of them women.

Background
Txopela Investments and the cooperative COPAZA are investing in the creation of a company called Sociedade Beneficiamento Sementes (SBS) as a sustainable supplier of certified seed and other agricultural inputs in central Mozambique. With TechnoServe’s support in management, technical services, and impact monitoring, SBS will establish a facility for cleaning, grading, storing, and packaging improved seed for sale to local smallholder farmers. SBS will distribute other agricultural inputs and provide training, mechanization, offtaking, and other services to smallholder farmers.

FY16 Progress
Having operationalized its seed cleaning, processing, and packaging facility prior to the start of this agreement, Txopela and SBS are now focusing on developing distribution networks and creating demand in the market for SBS’s certified seeds. Over the next year, Txopela will work with TechnoServe to develop a marketing and strategic plan, train sales representatives on business management and product knowledge, and develop 33 demonstration farms where it will train local smallholders in good agricultural practices.
Partnerships are key for companies working in smallholder markets, and Partnering for Innovation facilitated promising relationships between its current and former partners in FY16. In Kenya, graduated partner Surehatch needed a partner to provide credit for qualifying customers in order to promote sales of its new, expanded small-scale egg incubator. Partnering for Innovation connected Surehatch with Musoni, which is partnering with Grameen Foundation to increase sales of its tailored loan product, Kilimo Booster. Working together, these partners can provide smallholder farmers with the opportunity to expand their poultry businesses, generating more income for their families.

In Mozambique, partnerships between Phoenix Seeds and Lusosem have led to solutions for the distribution and sales challenges both companies are facing because of the recent currency devaluation and instability in the country.
The Nigerian agriculture sector, despite its size, is among the least productive in the world. While agriculture in Nigeria accounts for more than 40 percent of gross domestic product and up to 60 percent of total employment, most Nigerian farmers face labor constraints and lack the necessary resources to maximize their productivity. A majority of smallholder farmers, who make up more than 70 percent of the total farming population, do not have access to mechanization or technology that would make farming more efficient. Working with the private sector through Feed the Future is central to USAID’s strategy in Nigeria, and Partnering for Innovation is helping address bottlenecks to inclusive growth by supporting public private partnerships in agriculture.

To date, 8,103 farmers are using improved technologies and practices through partnerships in Nigeria.
Babban Gona

Nigeria
May 2016 – July 2018
Investment total: $4,759,546 (FTF-P4I: $1,021,551; partner leverage: $3,737,995)

Target: 20,000 smallholder farmers will form cooperatives, receiving credit, inputs, technical assistance, storage, and market access for their products that will result in collective new incomes of $2,000,000.

Background

Smallholder farmers’ low economies of scale inhibit access to the credit required to purchase agricultural inputs, access to appropriate information on best practices to optimize yields, and the ability to store their produce to attain a higher price as the product value appreciates postharvest. Babban Gona is addressing this challenge by forming smallholder farmer cooperatives called trust groups, which will enable maize, rice, and soybean farmers to attain greater economies of scale for purchasing inputs, receiving credit and technical assistance, and storing and selling their harvests. Babban Gona provides member farmers with services such as management training, loans, and input purchasing, thereby increasing profitability and in turn improving household food security and livelihoods.

FY16 Progress

In the short period since the May launch of this partnership, more than 8,000 smallholder farmers have been formalized into trust groups. The groups are designed to reduce barriers to access to smallholder farmers’ most critical needs. Babban Gona recognizes the key to success in effectively engaging such large numbers of farmers is developing a robust extension services team and has trained more than 89 extension agents who are providing technical assistance to member farmers.

With the success of the first 8,000 member farmers, Babban Gona will be able to demonstrate its model’s impact to other farmers. The plan is that other farmers will see the success of Babban Gona members and want to be part of the movement, effectively leading to a transformation of the Nigerian smallholder sector. Babban Gona plans to reach 20,000 farmers in five states across northern Nigeria by the end of this partnership.
Chi Farms

Nigeria
September 2016 – August 2018
Investment total: $1,969,198 (FTF-P4I: $983,255; partner leverage: $985,943)

Target: At least 1,000 smallholder fish farmers will access high-quality inputs, including fingerlings. An estimated 2,700 soybean farmers and 3,600 maize farmers will benefit from the procurement of their commodities for fish feed.

Background

Recognizing the need to increase Nigeria’s domestic fish production to meet growing demand, Chi Farms is expanding its capacity to produce high-quality inputs for smallholder fish farmers. Smallholders will have access to high-quality catfish fingerlings from Chi Farms’ multiple hatcheries, as well as aquaculture management training and financial management tools to provide the knowledge necessary to build successful aquaculture businesses. Chi Farms will expand its current feed production to include high-quality aqua feed, which will not only benefit fish farmers, but also soybean and maize farmers supplying raw material for the feed.

FY16 Progress

The partnership with Chi Farms was finalized in September 2016. In the coming months, Chi Farms will begin expanding its production capacity by developing new production sites and hiring and training staff. It will also start working with Women’s World Banking, an NGO, to conduct an analysis of financial products needed by small-scale fish farmers. Using this analysis, Chi Farms will partner with Diamond Bank to design a financial services package specifically for these fish farmers.
Hello Tractor

Nigeria
June 2016 – July 2018
Investment total: $1,982,334 (FTF-P4I: $989,470; partner leverage: $992,864)

**Target:** 24,500 smallholder farmers will have access to tractor services; 100 youth entrepreneurs will be trained in the business of owning, maintaining, utilizing, and promoting services for a fleet of Smart Tractors; and 15 youth technicians will be trained to repair Smart Tractors, allowing tractor owners access to timely maintenance.

**Background**

Recognizing the need for consistent and sustainable mechanization services for smallholder farmers, Hello Tractor is commercializing its Smart Tractor in Nigeria. Hello Tractor is working with local banks to provide financing for entrepreneurs, mainly youth, to purchase a Smart Tractor, which is fitted with a GPS system and software that enable Hello Tractor to pair farmers in need of services with a Smart Tractor service provider via SMS. The technology allows smallholder farmers access to affordable tractor services that will increase their productivity, and creates a new business opportunity for youth entrepreneurs who become Smart Tractor service providers.

**FY16 Progress**

In the early stages of implementation Hello Tractor is targeting training and capacity building for the youth entrepreneurs who it has recruited to buy and operate its Smart Tractors. Through strategic partnerships with the International Institute of Tropical Agriculture and Habgito, a local tractor distributor, Hello Tractor developed a comprehensive training plan for these entrepreneurs that will build their capacity to strengthen their business skills so that they can effectively serve smallholders in northern Nigeria.

In addition to assisting in the development of young entrepreneurs, the workshops are also acting as an effective marketing tool for Hello Tractor’s business model. Through the trainings, participants are taught how Hello Tractor’s technology can help make managing their tractor businesses more efficient through SMS messaging and usage tracking. As more entrepreneurs have been exposed to the tractor business model there has been an overwhelming demand for the tractors and software. Training seven trainers and selecting 50 youth “agripreneurs” are next steps in this process.
Nigeria is the world’s leading producer of cassava. However, peels are left unused and wasted during processing. Niji Foods, with support from the International Livestock Research Institute (ILRI), is establishing cassava peel processing centers for consolidating and processing cassava peels into mash that will be sold to animal feed companies as a low-cost substitute for maize. Niji Foods will also train 18 factory employees, six administrative staff, and 750 women cassava peelers and farmers on plant operations and business management to operate the processing centers. Ultimately, at least 6,480 metric tons of cassava peel will be processed, of which 2,945 metric tons of cassava peel mash will be sold to feed companies in Nigeria.

The partnership with Niji Foods began in September 2016. To date, Niji Foods has formalized a strategic partnership with ILRI, which has completed extensive research on the market opportunities and developed market standard guidelines for properly processed cassava peels for livestock consumption. ILRI will provide technical assistance to ensure Niji Foods is processing cassava peel to these standards for conversion into animal feed and building the capacity of staff and cassava peelers. In the coming months, Niji Foods will establish three new processing centers, complete with equipment specifically designed to process cassava peels into mash. The facilities will be operated by women who will be trained by Niji Foods in proper processing techniques and business management.
In Guatemala, Mercy Corps is working with Guatemalan exporter Fair-Fruit to organize youth savings and loan groups in the Western Highlands. With limited education and employment opportunities at home, many youth seek to migrate to the United States. Lack of access to credit further constrains entrepreneurship and income generation among youth. Through this partnership, more than 1,000 youth will gain access to financial tools and training that will allow them to invest in agricultural entrepreneurship, providing a local source of income and employment. Also in Guatemala, Popoyán – a leading agricultural company – is giving youth the opportunity to serve as lead farmers and distributors of biological pest control products. Youth tend to be more open to new technologies such as biological products, which also provide them with a healthier way to treat their crops.

In Nigeria, Hello Tractor is hiring youth entrepreneurs to promote and sell its Smart Tractor services. These youth will receive financing to purchase a Smart Tractor and will be trained on business and financial management. Hello Tractor will hire 100 youth entrepreneurs during its partnership with Partnering for Innovation, providing income generation opportunities in addition to offering smallholder farmers access to mechanization. Also in Nigeria, Babban Gona is targeting youth for its farmer cooperatives. Cooperative members receive services such as management training, loans, and input purchasing, and are able to get lower prices for inputs and higher prices when selling their crops. By encouraging youth—a significant and growing population in Nigeria—to join these groups, Babban Gona is providing them with an opportunity to professionalize their agricultural activities.
Ukraine is a major global agricultural producer whose agriculture sector continues to adjust to a market-based system. A new group of small- and medium-size enterprises is expanding and supporting these entrepreneurs and the farmers they work with is key to maintaining a robust agricultural system. Conflict in its eastern regions has posed a challenge in recent years, with the agriculture sector losing access to important markets and suffering decreased investment. By leveraging the expertise of commercial partnerships that benefit small- and medium-size agricultural businesses and farms in productive and profitable ways, USAID/Ukraine and Partnering for Innovation is increasing competitiveness, productivity, employment, and incomes in Ukraine.

To date, 1,087 farmers on 3,174 hectares are using improved technologies and practices through partnerships in Ukraine.
Agrico

Ukraine
August 2015 – August 2017
Investment total: $2,223,541 (FTF-P4I: $672,068; partner leverage: $1,551,473)

**Target**: Agrico will triple its storage capacity to 3,000 metric tons of high-quality seed potatoes leading to 450 farmers purchasing improved seeds with a goal of increasing potato yields by 30 percent and revenue by 43 percent.

### Background

Although Ukraine is one of the world’s largest producers of potatoes, most small- and medium-sized farms do not use certified potato seed. Instead, they use old seed or purchase non-certified seed. The seed potato market in Ukraine is also characterized by poor infrastructure and high prices, barring access to better quality planting materials for many small- and medium-sized farmers. To overcome these barriers, Agrico is producing and storing high-quality seed potatoes for sale to small- and medium-scale farmers and is also providing farmers with training and support in proper planting, cultivation, and harvesting of potatoes.

### FY16 Progress

As a result of its partnership with Partnering for Innovation, Agrico has shifted its focus from short-term goals and local markets to long-term strategies for sustainability and growth in the Ukrainian market. Through milestone requirements for a strategic marketing plan, Agrico has been able to closely analyze its current operations and begin to implement strategies for growing the business into a major market player. Agrico now views itself as a company with strong potential to transform the potato industry in Ukraine and is initiating that transformation through the services it provides to small- and medium-size farmers.

To support this long term vision, Agrico has increased the capacity of both its physical structures and staff. Establishing a new storage facility outside of Kyiv created an additional storage capacity of 2,000 metric tons of seed potato, improving access to high-quality seed potato for small- and medium-size farmers. As a complement to the seed sold, Agrico has also provided trainings and extension services to more than 200 small- and medium-size farmers in potato field management and harvesting techniques to help improve the quality of table potatoes produced. Agrico will leverage the successes of this past year to establish a second storage facility for an additional 1,000 metric tons and train an additional 250 farmers. Agrico also plans to scale up storage and marketing of table potatoes and sell these potatoes to local retail chains and, eventually, expand into regional and European Union export markets.
Agrobonus

Ukraine
July 2015 – July 2017
Investment total: $2,223,196 (FTF-P4I: $1,006,843; partner leverage: $1,216,353)

**Target:** At least 1,435 small- and medium-size farmers will receive soil fertility and field management consultations, resulting in a 30 percent increase in income from input cost reductions and crop yield increases.

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**Background**

The majority of small- and medium-size farmers in Ukraine do not have access to services that comprehensively analyze their soil. This lack of information constrains their productivity and efficiency. The government is supposed to provide soil testing services, however, its equipment is obsolete and it suffers from inadequate funding, leaving many farmers without access to these services.

Agrobonus, a leading national agricultural input distributor, is using funding provided by Partnering for Innovation to expand its service offering to include soil, plant, and water analysis aimed at improving farmer incomes and productivity. The company is offering these services through a state-of-the-art central laboratory and 16 mobile laboratories, and in addition to analysis results, will provide recommendations on how to improve soil health that will lead to more cost-efficient nutrient application and higher yields.

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**FY16 Progress**

To attract new customers, Agrobonus conducted workshops that explain the importance of soil analysis and trained farmers in practices that can help improve the health of their soil. Its workshops have been so successful at attracting new clients that in just over a year, Agrobonus has already achieved its two year target of conducting 16 workshops for more than 800 farmers, and plans to conduct eight additional workshops beyond the Partnering for Innovation partnership target. As a result of the training, demand for soil analysis services has surged. Agrobonus has so far completed soil analysis for more than 500 small- and medium-size farmers, filling a significant gap in the market. It is anticipated that Agrobonus will scale its services to reach more than 400 additional smallholder farmers in the remaining period of the partnership.
Bayer Ukraine

Ukraine
October 2015 – September 2017
Investment total: $6,406,189 (FTF-P4I: $1,046,757; partner leverage: $5,359,432)

**Target:** More than 840 sales representatives and 20,000 farmers will adopt improved agricultural and farm management practices, resulting in a 10 percent increase in Bayer distributors’ sales and an 8 percent increase in Bayer’s direct sales.

**Background**

Most small- and medium-size farmers have limited access to knowledge about good farm management practices and thus do not utilize quality inputs effectively. To help its customers more effectively utilize the inputs it sells and simultaneously build brand loyalty, Bayer is working with the International Finance Corporation (IFC) to design, field test, and implement a training package of 11 improved agribusiness practices in business management, financial management, crop management, and marketing for small- and medium-size farmers. Once Bayer and IFC have piloted the improved agribusiness practice activities, twenty of Bayer’s agricultural distribution partners will be trained in delivering these services to their customers.

**FY16 Progress**

Bayer has started incorporating direct technical assistance to farmers as part of the company’s core business model. Through this change, Bayer has built capacity and strengthened relationships with its distributors in Ukraine which it believes will lead to improved loyalty and increased business in the future. Over the last 12 months, Bayer, in partnership with IFC, has designed, piloted, and rolled out trainings on three topics critical to distributors and the farmers they serve: financial management tools, an agronomic decision support tool, and sustainable tillage. To date, more than 240 Bayer and Bayer distributor staff have been trained on these topics. Through the trainings, known as agro solutions, Bayer and IFC are preparing agricultural input distributors to be a better resource to small- and medium-size farmers in Ukraine by transforming them into effective farm advisors. Bayer and IFC will use currently trained staff and distributors to train 6,000 small- and medium-sized farmers and will develop eight additional agro solutions to be rolled out to distributors and farmers in the coming year.
International Charitable Fund Community 
Wellbeing with Danone

Ukraine      
July 2015 – February 2018
Investment total: $3,293,327 (FTF-P4I: $1,369,745; partner leverage: $1,923,582)

**Target:** At least 170 family farms will receive new dairy equipment and training to increase milk production and income by 40 percent. An additional 1,000 smallholder dairy farmers will have access to milk cooling tanks for the first time which will improve their product quality and increase incomes by 20 percent.

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**Background**

To increase small-scale farmers’ access to markets, ICF CW and its partners, including yogurt company Danone, are improving dairy milk quality by training family farmers in state-of-the-art milk production, including the use of improved cattle breeds, cooling tanks, milking machines, and other modern equipment. Family farms, which have 10 or more heads of cattle, will serve as collection centers for local smallholder farmers, providing these farmers with quality testing and refrigerated storage. Danone will then purchase milk produced by these small dairies, providing more farmers with new market access and Danone with a higher quality dairy product.

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**FY16 Progress**

As part of the family farm initiative, ICF CW is providing high-quality modern dairy equipment to farmers. This equipment helps improve the level of care given to cows, which in turn increases milk production and quality. In addition to equipment, ICF CW provides training in milk quality and hygiene, fodder production and animal feeding, farm and cow management, cooperative development, financial management, and milk marketing to family farmers, as well as other smallholder milk producers, to increase their capacity and knowledge of milk production. All of the trainings are designed to increase overall quality in the dairy industry, making the milk produced more appealing to large-scale producers. As a result, over the last 12 months ICF CW has facilitated the purchase of more than six million liters of high-quality milk by Danone Ukraine and other large scale buyers from small-scale farmers. ICF CW established 29 family farms and worked with more than 340 smallholder dairy farmers.
5. Partner Challenges

External Factors

Partners in several countries faced challenges over the past year resulting from external factors such as security issues, currency devaluation, and drought, putting pressure on the ability of smallholder farmers in target regions to invest in new services, inputs, and technologies and less able to produce and sell excess produce to offtakers. In Mozambique, a worsening security situation in target regions forced EMCL to delay construction of its five remaining hubs until FY17. The currency devaluation forced iDE partner Lusosem to restructure its approach to the smallholder market, and Banco Oportunidade de Mocambique pushed its loan targets back to FY17. Drought and the resultant famine in Malawi have hindered sales and Opportunity International Bank Malawi has had to push some of its loan targets into FY17. In addition, Universal has had difficulty procuring the amount of orange-fleshed sweet potato it needs to meet growing demand for its products because, with the failure of the local maize crop, farmers are turning to orange-fleshed sweet potato for household consumption instead of sale.

Ukraine continues to deal with unrest in its eastern regions, restricting the market and making farmers in that region, which is where ICF CW is mainly working, reluctant to invest in new dairy livestock and equipment. In addition to the unrest, ICF CW’s bank became insolvent, preventing it from accessing funds.

In Guatemala, Mercy Corps and SFSA have experienced less demand for the Farmforce software than expected because of unforeseen delays and uncertainties around the implementation of the US Food and Drug Administration’s Food Safety Modernization Act, which was meant to drive demand for electronic traceability software. Mercy Corps, through its Agrijoven activity, and Servicios de Post-Cosecha have also faced some challenges in recruiting youth – their target demographic – because of continuing youth migration to the United States. Mercy Corps is now making its activities more attractive to youth through a partnership with Rana Labs, which is training youth in video production for extension services.

Finally, AGCO, which closed having not achieved all its milestones, suffered from Zambia’s nearly 60 percent depreciation of the local currency during its implementation period, raising the cost of its imported silos and increasing bank interest rates, making the technology far less attractive to potential customers than during the initial phase of the partnership.
Internal Management

Several partners have faced constraints as a result of issues with internal management and capacity development. AATF and its seed company partners have not produced the volumes of StrigAway they had hoped because CIMMYT does not have commercial seed production capacity and has struggled to produce sufficient volumes of StrigAway breeding seed for partner seed companies to replicate. The seed companies themselves have faced challenges in producing seed because of external circumstances and internal management challenges. Market demand for StrigAway is strong, though, and two of the seed companies are significantly expanding their production to meet this demand.

MEA’s factory expansion in Kenya has not yet been completed because of equipment procurement issues and internal management turnover, including the loss of the original BIOFIX product developer and champion of the concept within the company. As a result, Partnering for Innovation has taken an extremely hands-on management approach to ensure that new project managers within MEA focus their resources on completing the partnership milestones.

In Ukraine, Bayer is facing unexpected challenges in identifying local qualified agriculture experts to develop its agro solutions trainings and has had to bring in more expensive international experts.
Distribution and Financial Subpartners

Several partners have faced challenges as a result of issues with their distributors or financial partners. In addition to their production challenges, AATF’s partner seed companies may not be seeing higher sales because of insufficient agrodealer capacity to effectively market StrigAway. Partnering for Innovation is providing acceleration services targeting agrodealer training on StrigAway to address this issue.

Netafim encountered issues with both its distributor and its commercial banking partners that hindered commercialization of its drip irrigation kit. Netafim relied on local distributor Amiran to distribute, market, and sell its smallholder irrigation kits; however, coordination between the two companies was insufficient at critical times during the partnership, and Amiran did not receive the support needed to overcome these external challenges. In addition, due to the high upfront costs of purchasing drip irrigation, the partnership also required a committed financial institution to provide credit. Despite the support of Connexus, a financial consulting firm, in negotiating a consumer loan package with at least two commercial banks that had signed on with MOUs, the banks failed to follow-through at the operational level, resulting in no approved smallholder loans for the purchase of irrigation kits. These challenges demonstrate the importance of having formal partnerships between partners and their subpartners in place before implementation, and selecting or providing partners with strong management capacity in order to coordinate activities between various partners effectively.
3. Acceleration Services

Partnering for Innovation provides acceleration services to partners to solve challenges or add value to partners’ progress towards reaching smallholder farmers and are designed to be responsive to partners’ needs.

- **On-demand, customized services:** Partners are asked during regular management activities to identify acceleration and business support needs. The requests are prioritized according to the specifics of the need, potential impact of provided services, the partnership end date and necessary timing of services, and available program resources.

- **Cross-partner analyses, resources, and tools:** Partnering for Innovation determines a study, resource, or tool in response to common challenges or needs across partners. The program also coordinates with other innovation acceleration programs on tools, given the common challenges between Partnering for Innovation partners and, for example, Powering Agriculture and Securing Water for Food partners.
In FY16, Partnering for Innovation provided on-demand acceleration services to nine of its partners/subpartners and developed six cross-partner acceleration resources and services, including an agriculture investment summit event that was organized in conjunction with two other USAID-funded innovation programs:

**Customized Services**

- **AATF**: Fintrac’s food analytics department conducted a study to provide marketing advice for improving sales and use of StrigAway.

- **Surehatch**: Fintrac’s food analytics department conducted a study to help the company better segment its market and target smallholder customers. Surehatch used this information to develop its expansion plans.

- **Moana & MKA**: A banking and strategy consultant worked with MKA to develop a five-year business strategy plan, including detailed financial projections

- **Phoenix/Lusosem/Oruwera**: A seed marketing expert advised these companies on seed marketing, distribution, and sales strategies to help them overcome challenges in consumer demand, smallholder outreach, and distribution channels.

- **Universal Industries**: A branding expert worked with Universal to conduct a regional marketing assessment and develop a sales strategy for expanding the market for its processed orange-fleshed sweet potato products. This strategy will help Universal competitively position its new products as well as address local raw material and infrastructure constraints.

- **AISL**: A branding expert evaluated and provided feedback on the company’s marketing and distribution plan.
Cross-Partner Services

- **AgLab**: Select partners participated in the Agriculture Innovation Investment Summit (AIIS) and received services such pitch coaching and business development workshops.

- **Drip irrigation study**: This cross-partner study analyzed Partnering for Innovation’s drip irrigation partners’ commercialization models in targeting smallholder markets, as well as one project-based approach. Lessons learned and recommendations for future initiatives were provided.

- **Drip irrigation market study**: This study provides a comprehensive look at eight East and Southern Africa markets for companies targeting irrigation technology to the smallholder market. It provides information on potential demand, active programs targeting smallholder agriculture, and key companies and donors working in the sector.

- **Business strategy support**: Partners received business strategy development coaching from a banking and strategy consultant. The approach requires that each partner commit a team of key decision makers that explore sales, staffing, markets and financial projections and results in a short and focused strategy that has buy-in from the top. The service is available for all partners to assist them in meeting their business strategy milestone.

- **STP tool**: Partners tested this online segmentation, targeting, and positioning tool for use in their marketing strategies. It is now available for use on the AgTechXChange.

- **Seed study**: The objective of this study, which looks at seven seed sector partnerships, is to distil lessons from these partnerships that could inform both private sector investors as well as the international donor community on past challenges and successful approaches to commercializing seed systems for smallholder farmers.
4. Knowledge Exchange

Partnering for Innovation’s knowledge exchange activities encompass knowledge management as well as communications and marketing. The program facilitates knowledge sharing with and between its partners as well as the wider development community, including the private sector, investors, and development organizations and programs. These activities strengthen stakeholders’ ability to successfully commercialize agricultural innovations in smallholder markets, sharing lessons learned and best practices, and facilitating beneficial connections.

Knowledge Management and Program Learning

Knowledge management and program learning ramped up in FY16 given that 14 subawards were awarded and 13 have closed out. The team completed a brainstorming session that identified main topic areas for lessons learned from the first three years of the program and captured both lessons learned and learning topics for further exploration. The knowledge exchange lead will formalize the knowledge management and program learning activities closing out FY16 by finalizing plans for: 1) documenting critical knowledge on developing and managing partners that culminates into a program guidebook for implementing the Partnering for Innovation funding mechanism; 2) documenting and sharing successful approaches to commercializing technologies and other innovations in smallholder markets that contribute to a resource rich AgTechXChange platform.
Marketing and Communications

Marketing and communications activities in FY16 continued to position the program as a source of information on commercializing agricultural technology in smallholder markets. Three partners, MKA Hatchery, Opportunity International Bank Malawi, and Zamorano University, were featured in the Feed the Future newsletter. Partnering for Innovation worked with Agrilinks on a series of blog posts that ran in early 2016 featuring 15 of Partnering for Innovation’s partners. Partnership launch events in Nigeria, Ukraine, and Guatemala received local media coverage in a number of print and TV outlets.

Partnering for Innovation also participated in a number of events in FY16. The program director sat on a panel that discussed smallholder technology investment at SOCAP in San Francisco, presented at USAID/BFS’s Scaling Agricultural Innovations Workshop, presented two technology cases at the Gates Charting the Future of Ag Innovations conference, and participated in a session at the Peace Corps Connect anniversary event. One of the Mission partnership specialists presented at the 2016 SEEP conference and the knowledge exchange lead did a presentation for the Food Security Network. Several partners participated in events around the world, including Surehatch and Toro at the Global Forum for Innovations in Agriculture (GFIA) in South Africa and MKA Hatchery and Toro at the GFIA in Abu Dhabi, and CTI at the First Annual Congress on Postharvest Loss Prevention.
AgTechXChange

Having built a solid base of users and content on the AgTechXChange, Partnering for Innovation focused in FY16 on making the site more user-friendly. The program collected feedback on the site from a group of its partners at the Ag Innovation Investment Summit and re-structured the site based on that feedback, streamlining it into three main spaces: Connect, Grow, and Learn. The number of users on the site increased by 50 percent in FY16 to 1,800. Moving forward, the focus will be on building a more robust community through closer, more personal management, attracting investors to more actively participate, and building up the curated section to be a trusted and well-known source of information on commercializing agricultural innovations in smallholder markets.
As a result of the experience gained by implementing a growing portfolio of investments, in FY16 Partnering for Innovation began to capture lessons learned for commercializing agricultural innovations in smallholder markets. Data was collected during routine check-in calls, reported in quarterly reports, discussed during cross-partner meetings in Washington, DC, and on monitoring trips, through cross partner studies and impact assessments, and as a result of acceleration services.

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Lesson Learned</th>
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<tbody>
<tr>
<td><strong>Accessing Financial Products for Smallholder Farmer:</strong> Products with proven value sold at low costs often remain inaccessible to farmers because there are few locally available financial services. Mobile banking offers potentially game-changing solutions, but is largely absent where partners are working.</td>
<td><strong>Include credit packages within sales strategies:</strong> Partnering for Innovation partners are building credit and loan facilities within their product offerings or negotiating with financial institutions in ways that enable banks to lessen the risk of lending to smallholders. Partners also network among each other to build solutions to common challenges in finding financial service providers (including NGOs). <a href="#">Read about partners that are offering innovative financing here.</a></td>
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<tr>
<td><strong>Understanding Smallholder Farmer Consumers:</strong> Very little data exists about these smallholder consumers beyond that collected for demographic purposes, and partners do not consider customer segments in their marketing.</td>
<td><strong>Structure milestones to include marketing strategy development:</strong> Including a milestone requiring a marketing plan pushes partners to study and better understand their consumer segments. Additionally, tools and resources provided by Partnering for Innovation demonstrate how market segmentation benefits small businesses. <a href="#">Learn how Partnering for Innovation provides business acceleration resources here.</a></td>
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<td><strong>Developing Distribution Models:</strong> Lack of infrastructure coupled with weak local and regional markets makes it difficult for companies to distribute affordable, effective innovations.</td>
<td><strong>Identify and test innovative distribution models:</strong> Testing models allows partners to customize distribution strategies in complex, under-resourced rural farming communities. Any model must identify and/or establish aggregation sites for selling and storing products and train workforces for marketing and selling products. <a href="#">Check out innovative business models here.</a></td>
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<td><strong>Identifying Skilled Workforces:</strong> Hiring and retaining staff in a start-up environment is difficult, as is building up a competent workforce for marketing and selling products.</td>
<td><strong>Provide on-the-job training:</strong> Local capacity for hiring at the executive and operational level is a difficult issue to confront, let alone tackle. Partners are learning that training at both levels must be provided on a continual basis, and Partnering for Innovation identifies training as a milestone at the outset of new partnerships as appropriate.</td>
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<td><strong>External Disruptions:</strong> Factors outside a company’s influence, such as political disruptions, weather fluctuations that affect smallholders’ crops, and cultural differences, increase risk and affect business success.</td>
<td><strong>Develop pre-competitive partnerships:</strong> Working with other companies facing similar challenges at a pre-competitive level fosters creative solutions and develops strong local networks to flexibly respond to external disruptions. Funding that reduces the risk of initial investments required to enter new markets increase the prospects for launching and scaling a business model. <a href="#">Read about how companies in Mozambique are overcoming these challenges here.</a></td>
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### Appendix 1: Program Impact

**Required FTF Indicator 4.5.2-2**

Number of hectares under improved technologies or management practices as a result of USG assistance

<table>
<thead>
<tr>
<th>Component #</th>
<th>Partnerships Reporting</th>
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<th>FY 2014 Achieved</th>
<th>FY 2015 Achieved</th>
<th>FY 2016 Target</th>
<th>FY 2016 Achieved</th>
<th>FY 2017 Target</th>
<th>FY 2017 Achieved</th>
<th>FY 2018 Target</th>
<th>FY 2018 Achieved</th>
<th>LOP Target</th>
<th>Achieved To Date</th>
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### Required FTF Indicator 4.5.2-38

**Value of new private sector investment in the agriculture sector or food chain leveraged by FTF implementation (US$,000)**

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### Required Custom Indicator

**Number of public private partnerships formed as a result of program assistance**

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## Required Custom Indicator

**Number of technologies or management practices made available for transfer as a result of USG assistance**

<table>
<thead>
<tr>
<th>Component #</th>
<th>Partnerships Reporting</th>
<th>FY 2013 Achieved</th>
<th>FY 2014 Achieved</th>
<th>FY 2015 Target</th>
<th>FY 2016 Achieved</th>
<th>FY 2016 Target</th>
<th>FY 2017 Achieved</th>
<th>FY 2017 Target</th>
<th>FY 2018 Achieved</th>
<th>FY 2018 Target</th>
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<th>Achieved To Date</th>
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<td>10</td>
<td>17</td>
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<td>2. Partnership Development</td>
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<td>15</td>
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<td>23</td>
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### Mozambique

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<th>FY 2016 Target</th>
<th>FY 2017 Achieved</th>
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### Malawi

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### Guatemala

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<th>FY 2016 Target</th>
<th>FY 2017 Achieved</th>
<th>FY 2017 Target</th>
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### Ukraine

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<th>FY 2015 Target</th>
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<th>FY 2015 Target</th>
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<th>FY 2017 Target</th>
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### Nigeria

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<th>FY 2017 Target</th>
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<tr>
<td>0</td>
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### TBD

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<td>0</td>
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### Required Custom Indicator

**Value of total private sector funding leveraged in the agriculture sector or food chain as a result of FTF assistance (US$,000)**

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<th>Component #</th>
<th>Partnerships Reporting</th>
<th>FY 2013 Achieved</th>
<th>FY 2014 Achieved</th>
<th>FY 2015 Achieved</th>
<th>FY 2016 Target</th>
<th>FY 2016 Achieved</th>
<th>FY 2017 Target</th>
<th>FY 2017 Achieved</th>
<th>FY 2018 Target</th>
<th>FY 2018 Achieved</th>
<th>LOP Target</th>
<th>Achieved To Date</th>
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</thead>
<tbody>
<tr>
<td>1. Technology Commercialization</td>
<td>Component 1</td>
<td>0</td>
<td>817</td>
<td>2,492</td>
<td>4,613</td>
<td>3,629</td>
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<td>9,807</td>
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<td>2. Partnership Development</td>
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<td>9,520</td>
<td>7,985</td>
<td>16,754</td>
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<td>Mozambique</td>
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<td>8,837</td>
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<td>1,181</td>
<td>1,682</td>
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<td>0</td>
<td>0</td>
<td>523</td>
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<td>Nigeria</td>
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### Required Custom Indicator

**Number of investment designs/models identified**

<table>
<thead>
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<th>Component #</th>
<th>Partnerships Reporting</th>
<th>FY 2013 Achieved</th>
<th>FY 2014 Achieved</th>
<th>FY 2015 Achieved</th>
<th>FY 2016 Target</th>
<th>FY 2016 Achieved</th>
<th>FY 2017 Target</th>
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<th>FY 2018 Target</th>
<th>FY 2018 Achieved</th>
<th>LOP Target</th>
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<tbody>
<tr>
<td>3. Investment Models and Case Studies</td>
<td>Project-Level</td>
<td>0</td>
<td>11</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
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<td>27</td>
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### Appendix 11: Work Plan

<table>
<thead>
<tr>
<th>NO.</th>
<th>DESCRIPTION</th>
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<th>ACHIEVED</th>
<th>BALANCE</th>
<th>DELIVERABLE</th>
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<tbody>
<tr>
<td>1</td>
<td>Technology Commercialization</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Round 4 Partnership Negotiation and Award</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1.1.1</td>
<td>Conduct due diligence and initiate negotiations via site visits</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>5 Round 4 due diligence site assessments conducted for AISL, The Metal, Grameen Foundation, Store It Cold, and Stewards Globe</td>
</tr>
<tr>
<td>1.1.2</td>
<td>Negotiate final milestones and award partnerships</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>5 Round 4 partnerships negotiated and awarded to AISL, The Metal, Grameen Foundation, Store It Cold, and Stewards Globe</td>
</tr>
<tr>
<td>1.2</td>
<td>Ongoing Partnership Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2.1</td>
<td>Provide ongoing business and grant management assistance and capacity building support to partners</td>
<td>12</td>
<td>12</td>
<td>0</td>
<td>12 monthly check-ins to date per partner, including milestone status reports, progress updates, and success stories</td>
</tr>
<tr>
<td>1.2.2</td>
<td>Conduct monitoring visits</td>
<td>4</td>
<td>6</td>
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<td>6 monitoring visits to Guatemala in Oct 2015 and Jan 2016 (Mercy Corps), Zambia in Nov 2015 (AGCO), Uganda in Dec 2015 (AATF), Kenya in Jul 2016 (AATF, MEA, Grameen), Ethiopia in Jul 2016 (EthioChicken)</td>
</tr>
<tr>
<td>1.2.3</td>
<td>PI-SMOG-01-05 Netafim</td>
<td>10m</td>
<td>406</td>
<td>9.5m</td>
<td>USD $406,157 in sales of smallholder drip kits; award closed</td>
</tr>
<tr>
<td>1.2.4</td>
<td>PI-SMOG-01-08 AATF</td>
<td>955</td>
<td>381</td>
<td>574</td>
<td>381 MT of StrigAway sold in Kenya (294 MT), Tanzania (10 MT), and Uganda (76 MT); award extended and additional milestones will be achieved in FY17</td>
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<tr>
<td>1.2.5</td>
<td>PI-SMOG-02-01 Moana</td>
<td>50</td>
<td>53.6</td>
<td>0</td>
<td>53,583,570 shrimp post larvae sold to 1,075 farmers; award closed</td>
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<tr>
<td>1.2.6</td>
<td>PI-SMOG-02-02 AGCO</td>
<td>40</td>
<td>0</td>
<td>40</td>
<td>0 grain storage silos sold; award closed</td>
</tr>
<tr>
<td>1.2.7</td>
<td>PI-SMOG-02-03 Mercy Corps</td>
<td>11</td>
<td>8</td>
<td>3</td>
<td>8 companies with signed contracts for Farmforce; award extended and additional milestones will be achieved in FY17</td>
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</table>
## Technology Commercialization

<table>
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<tr>
<th>NO.</th>
<th>DESCRIPTION</th>
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<th>BALANCE</th>
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<tr>
<td>1.2.8</td>
<td>PI-SMOG-02-05 MEA</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2 phases of factory scale-up completed</td>
</tr>
<tr>
<td>1.2.9</td>
<td>PI-SMOG-03-01 Flow Equity</td>
<td>2.2</td>
<td>2.4</td>
<td>0</td>
<td>2,395,206 day-old chicks sold to farmers</td>
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<tr>
<td>1.2.10</td>
<td>PI-SMOG-03-02 Zamorano</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2 phases of biological control production complete</td>
</tr>
<tr>
<td>1.2.11</td>
<td>PI-SMOG-04-01 Agri-Inputs Suppliers Limited</td>
<td>25</td>
<td>32</td>
<td>0</td>
<td>32 agrodealers trained</td>
</tr>
<tr>
<td>1.2.12</td>
<td>PI-SMOG-04-02 The Metal</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>6 reaper sales and maintenance hubs operationalized</td>
</tr>
<tr>
<td>1.2.13</td>
<td>PI-SMOG-04-03 Grameen</td>
<td>3,500</td>
<td>5,012</td>
<td>0</td>
<td>5,012 Kilimo Booster agricultural loans disbursed to farmers</td>
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<tr>
<td>1.2.14</td>
<td>PI-SMOG-04-04 Store It Cold</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0 demonstration units installed and launched; milestone extended and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>installation of 2 units scheduled for Q2 FY17</td>
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<tr>
<td>1.2.15</td>
<td>PI-SMOG-04-05 Stewards Globe</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1 product marketing plan submitted</td>
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## Technology Commercialization for USAID Missions

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<th>DELIVERABLE</th>
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<tr>
<td>1.3.1</td>
<td>Facilitate USAID Mission buy-in to existing commercialization partnerships</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>1 mission buy-in with program partner Mercy Corps receiving $375,519 in</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>USAID/Guatemala funds to scale up Farmforce activities; 1 mission buy-in</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>with program partner MKA Hatchery receiving $450,000 from USAID/Bangladesh</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>through AIN (not FTF-P4I) for farmer training</td>
</tr>
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## Ongoing Data Collection on Partnership Impact

<table>
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<th>ACHIEVED</th>
<th>BALANCE</th>
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<tr>
<td>1.4.1</td>
<td>Submit semiannual reports on progress against program indicators</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2 semi-annual reports with progress against program indicators submitted</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>to USAID on October 29, 2015 and April 29, 2016</td>
</tr>
<tr>
<td>NO.</td>
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<td>ACHIEVED</td>
<td>BALANCE</td>
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<td>-------------</td>
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<tr>
<td>1.4.2</td>
<td>Verify all data submitted for milestones with payments greater than $100K or final cumulative sales milestones</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>0 data verification surveys conducted; Netafim MS#3 and AGCO MS#6 were unmet and unpaid; Flow Equity MS #6 will be confirmed through an external impact study conducted by Tripleline Consulting; deadlines for MEA MS#7 and Flow Equity MS#7 were modified</td>
</tr>
<tr>
<td>2</td>
<td>Mission Partnerships</td>
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</tr>
<tr>
<td>2.1</td>
<td>New Mission Partnership Outreach</td>
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<td></td>
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<td></td>
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<tr>
<td>2.1.1</td>
<td>Identify new USAID mission partnership opportunities and buy-in capabilities in partnership with USAID/BFS</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3 additional mission buy-in opportunities identified with buy-ins from USAID/Zambia, USAID/LAC, and USAID/Lab in June 2016</td>
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<td>2.2</td>
<td>New Mission Partnership Negotiation and Award</td>
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<tr>
<td>2.2.1</td>
<td>Facilitate TEC, conduct due diligence, and initiate negotiations on behalf of USAID/Benin</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2 USAID/Benin partner due diligence site assessments conducted in October 2015 for Tolaro and Royal Fish</td>
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<tr>
<td>2.2.2</td>
<td>Negotiate final milestones and award partnerships on behalf of USAID/Benin</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1 USAID/Benin partnership negotiated and awarded to Tolaro; Royal Fish was disqualified during due diligence</td>
</tr>
<tr>
<td>2.2.3</td>
<td>Facilitate TEC, conduct due diligence, and initiate negotiations on behalf of USAID/Nigeria</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>4 USAID/Nigeria partner due diligence site assessments conducted in January 2016 for Babban Gona, Chi Farms, Hello Tractor, and Niji Foods</td>
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<tr>
<td>2.2.4</td>
<td>Negotiate final milestones and award partnerships on behalf of USAID/Nigeria</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>4 USAID/Nigeria partnerships negotiated and awarded to Babban Gona, Hello Tractor, Chi Farms, and Niji Foods</td>
</tr>
<tr>
<td>2.2.5</td>
<td>Facilitate TEC, conduct due diligence, and initiate second round negotiations on behalf of USAID/Guatemala</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>5 USAID/Guatemala partner due diligence site assessments conducted in October 2015 for Mercy Corps, Post Cosecha, SIESA, ASOCUCH, AGIL; ASOCUCH and AGIL were disqualified during due diligence</td>
</tr>
<tr>
<td>2.2.6</td>
<td>Negotiate final milestones and award partnerships on behalf of USAID/Guatemala</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>3 USAID/Guatemala partnerships negotiated and 2 partnerships awarded for Mercy Corps and Post Cosecha; SIESA was disqualified during due diligence</td>
</tr>
<tr>
<td>2.2.7</td>
<td>Facilitate TEC, conduct due diligence, and initiate second round negotiations on behalf of USAID/Mozambique</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>3 USAID/Mozambique partner due diligence site assessments conducted in January 2016 for Cargill, TECAP, Txopela; only 3 finalists were chosen by the TEC for potential funding</td>
</tr>
</tbody>
</table>
2.2.8 Negotiate final milestones and award partnerships on behalf of USAID/Mozambique

3 USAID/Mozambique partnerships negotiated and 2 partnerships awarded to TECAP and Txopela; Cargill dropped out of negotiations due to local tax issues

2.2.9 Facilitate TEC, conduct due diligence, and initiate negotiations on behalf of two new mission partners

5 USAID/Zambia due diligence site assessments conducted for Amatheon Agri Zambia, MRI Syngenta, NCBA CLUSA, TechnoServe, and Zasaka Agro; due diligence for 2 USAID/LAC and 3 USAID/PHL partners expected in Q1 of FY2017

2.2.10 Negotiate final milestones and award partnerships on behalf of two new mission partners

5 new USAID/Zambia, 2 USAID/LAC, and 3 USAID/PHL partnerships currently in negotiation; 10 expected partnerships awarded in Q1 and Q2 of FY2017

2.3 Ongoing Partnership Management

2.3.1 Provide ongoing business and grant management assistance and capacity building support to partners

12 monthly check-ins to date per partner, including milestone status reports, progress updates, and success stories

2.3.2 Conduct monitoring visits

9 monitoring visits to Guatemala in Oct 2015, Jan 2016, Jun 2016 (Popoyan, Mercy Corps, Post Cosecha); Mozambique in Nov 2015, Jan 2016, May 2016, Aug 2016 (BOM, iDE, CLUSA, ETG, TECAP, Txopela); Ukraine in Jun 2016 (ICF, Agrobonus, Bayer, Agrico); Malawi in Aug 2016 (OIBM, Universal, Rab)

2.3.3 PI-SMOG-MOZ-01-01 Opportunity International

746 agricultural loans disbursed to farmers

2.3.4 PI-SMOG-MOZ-01-02 iDE

1,301 smallholder farmers accessing improved inputs

2.3.5 PI-SMOG-MOZ-01-03 NCBA CLUSA

42 MT of improved seed sold to smallholder farmers; milestones extended and additional sales scheduled for FY17

2.3.6 PI-SMOG-MOZ-01-04 EMCL

18 retail hubs constructed and operational; remaining hubs scheduled for completion Q2 FY17

2.3.7 PI-SMOG-MAL-01-01 Opportunity International Bank

482 agricultural loans disbursed to farmers

2.3.8 PI-SMOG-MAL-01-02 Universal Industries

32 smallholder outgrowers selling OFSP for processing; additional sales scheduled for FY17
<table>
<thead>
<tr>
<th>NO.</th>
<th>DESCRIPTION</th>
<th>TARGET</th>
<th>ACHIEVED</th>
<th>BALANCE</th>
<th>DELIVERABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3.9</td>
<td>Pi-SMOG-MAL-01-03 RAB Processors</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2 SRAMs constructed and operational; remaining SRAM scheduled for completion Q2 FY17</td>
</tr>
<tr>
<td>2.3.10</td>
<td>PI-SMOG-GUAT-01-01 Popoyan</td>
<td>1,209</td>
<td>507</td>
<td>702</td>
<td>507 smallholder farmers trained; additional training activities schedule for FY17</td>
</tr>
<tr>
<td>2.3.11</td>
<td>PI-SMOG-Guate-02-01 Mercy Corps</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td>0 youth savings and loan groups established; milestones extended and additional activities scheduled for FY17</td>
</tr>
<tr>
<td>2.3.12</td>
<td>PI-SMOG-UKR-01-01 ICF/Danone</td>
<td>70</td>
<td>29</td>
<td>41</td>
<td>29 family farms established and operational; additional activities scheduled for FY17</td>
</tr>
<tr>
<td>2.3.13</td>
<td>PI-SMOG-UKR-01-02 Agrobonous</td>
<td>800</td>
<td>826</td>
<td>0</td>
<td>826 farmers trained in soil mapping and recommendation services</td>
</tr>
<tr>
<td>2.3.14</td>
<td>PI-SMOG-UKR-01-03 Bayer</td>
<td>11</td>
<td>3</td>
<td>8</td>
<td>3 new agro services piloted and tested; additional activities scheduled for FY17</td>
</tr>
<tr>
<td>2.3.15</td>
<td>PI-SMOG-UKR-01-04 Agrico</td>
<td>1,000</td>
<td>2,751</td>
<td>0</td>
<td>2,751 MT of improved potato seed sold to smallholder farmers</td>
</tr>
</tbody>
</table>

### 2.4 Ongoing Data Collection on Partnership Impact

<table>
<thead>
<tr>
<th>NO.</th>
<th>DESCRIPTION</th>
<th>TARGET</th>
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<th>BALANCE</th>
<th>DELIVERABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4.1</td>
<td>Submit semiannual reports on progress against program indicators</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2 semi-annual reports with progress against program indicators submitted to USAID on October 29, 2015 and April 29, 2016</td>
</tr>
<tr>
<td>2.4.2</td>
<td>Verify all data submitted for milestones with payments greater than $100K or final cumulative sales milestones</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>4 data verification surveys conducted for Popoyan MS#3, iDE MS#6, ETG MS#7, and iDE MS#7; Universal MS#8 deadline was modified</td>
</tr>
</tbody>
</table>

### 3 Investment Models and Tools

#### 3.1 Partner Case Study Updates

<table>
<thead>
<tr>
<th>NO.</th>
<th>DESCRIPTION</th>
<th>TARGET</th>
<th>ACHIEVED</th>
<th>BALANCE</th>
<th>DELIVERABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.1</td>
<td>Update S2S Guide materials to incorporate additional case studies of closing partnerships</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>4 case studies of partnerships with Netafim, Moana, Surehatch, and OIBM completed</td>
</tr>
</tbody>
</table>

#### 3.2 Partner Acceleration Services
<table>
<thead>
<tr>
<th>NO.</th>
<th>DESCRIPTION</th>
<th>TARGET</th>
<th>ACHIEVED</th>
<th>BALANCE</th>
<th>DELIVERABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2.1</td>
<td>Develop standard suites of general business tools and services for broad distribution to partners</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>3 business acceleration tools developed for strategic business planning, market segmentation, product promotion, and drip market surveys</td>
</tr>
<tr>
<td>3.2.2</td>
<td>Provide customized consultant expertise and support to targeted partners to address scale-up challenges</td>
<td>8</td>
<td>9</td>
<td>0</td>
<td>9 partners receiving customized business support, including market expansion for Lusosem, Oruwera, and Phoenix, OFSP market expansion for Universal, strategic planning for MKA and Flow Equity, customer segmentation for Surehatch, financing for AGCO, strategic marketing for AISL</td>
</tr>
</tbody>
</table>

4 Knowledge Management

4.1 Program Learning and Knowledge Dissemination

4.1.1 Document program learning and partnership best practices | 4 | 4 | 0 | 4 learning materials developed, including program lessons learned, internal subaward management guide, means of verification development guide, and partnership guide for new partners |

4.1.2 Facilitate knowledge exchange between development practitioners on PI partnership approach | 4 | 4 | 0 | 4 knowledge exchange opportunities: presented on program processes at FSN/TOPS Knowledge Sharing Conference, shared M&E practices in Gates Foundation’s Charting the Future of Ag Innovation meeting, presented on program processes for identifying new ag technology at SOCAP Conference, and presented lessons learned in partner management at SEEP Conference; also facilitated quarterly best practices meetings with SWFF and Powering Ag |

4.2 Partner Information Exchange

4.2.1 Host targeted, technically themed partner event to facilitate partner network and information exchange | 1 | 1 | 0 | 1 AgInnovation Investment Summit with 16 partners in attendance hosted in partnership with SWFF and Powering Ag in June 2016 |

4.2.2 Identify development practitioner and technology investment targeted events for learning dissemination and partner investment | 4 | 5 | 0 | 5 events attended by staff and partners, including FTF-P4I presented at OI’s Regional Summit in Oct 2015 (Washington) and SOCAP16 in Sep 2016 (San Francisco), CTI presented at Int’l Congress on Postharvest Loss Prevention in Oct 2015 (Rome), Surehatch and Toro presented at GFIA Africa in Dec 2015 (Durban), and MKA presented at GFIA in Feb 2016 (Abu Dhabi) |
## Program Impact and Reporting

### 5.1 Program Impact

<table>
<thead>
<tr>
<th>NO.</th>
<th>DESCRIPTION</th>
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<th>ACHIEVED</th>
<th>BALANCE</th>
<th>DELIVERABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2.3</td>
<td>Develop new approaches for facilitating knowledge transfer between private sector actors through ATX</td>
<td>650</td>
<td>911</td>
<td>0</td>
<td>911 total private sector users on the AgTechXChange</td>
</tr>
</tbody>
</table>

### 5.1.1 Collect sales data and other business metrics to ensure partner progress against targets

ongoing submission of sales milestones from partners

### 5.1.2 Verify all data submitted for milestones with payments greater than $100K or final cumulative sales milestones

4 data verification surveys conducted for Popoyan MS#3, iDE MS#6, ETG MS#7, and iDE MS#7; Netafim MS#3, AGCO MS#6 were unmet and unpaid; Flow Equity MS #6 was confirmed through an external study; deadlines for MEA MS#7, Flow Equity MS#7, Universal MS#8 were modified

### 5.1.3 Conduct farmer-level impact surveys for select partners to confirm sales to farmers and impact on women

6 farmer-level impact surveys conducted for Surehatch, AATF, BOM, iDE, CLUSA, and ETG; external farmer impact study for Flow Equity conducted by Tripleline Consulting and results to be shared with FTF-P4I

### 5.1.4 Provide information on program monitoring and evaluation practices for the development of DQA documentation

9 program data indicator practices described for the development of DQA documentation

### 5.2 Progress Reporting

<table>
<thead>
<tr>
<th>NO.</th>
<th>DESCRIPTION</th>
<th>TARGET</th>
<th>ACHIEVED</th>
<th>BALANCE</th>
<th>DELIVERABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2.1</td>
<td>Submit monthly updates on general program activities</td>
<td>12</td>
<td>9</td>
<td>3</td>
<td>9 monthly updates submitted to USAID (program received guidance from USAID AOR during bi-weekly check-in meeting on June 15, 2016 that monthly updates were no longer required)</td>
</tr>
<tr>
<td>5.2.2</td>
<td>Submit semi-annual reports on progress against program indicators</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2 semi-annual reports with progress against program indicators submitted to USAID on October 29, 2015 and April 29, 2016</td>
</tr>
<tr>
<td>5.2.3</td>
<td>Submit quarterly financial and accrual reports</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>4 quarterly financial reports submitted to USAID on December 10, 2015; March 14, 2016; June 21, 2016; September 7, 2016</td>
</tr>
</tbody>
</table>

### 6 Recommendations for Ongoing Implementation

#### 6.1 Updated M&E Plan
<table>
<thead>
<tr>
<th>NO.</th>
<th>DESCRIPTION</th>
<th>TARGET</th>
<th>ACHIEVED</th>
<th>BALANCE</th>
<th>DELIVERABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1.1</td>
<td>Update program M&amp;E Plan to include improved M&amp;E practices and policies</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1 updated M&amp;E Plan submitted to USAID on December 23, 2015</td>
</tr>
<tr>
<td>6.1.2</td>
<td>Develop PIRS and DQAs for all program indicators</td>
<td>16</td>
<td>18</td>
<td>0</td>
<td>9 PIRS and 9 DQAs (one each per indicator) submitted as part of its updated M&amp;E Plan to USAID on December 23, 2015</td>
</tr>
<tr>
<td>6.2.1</td>
<td>Update internal program grant guidance to include clear guidelines for SMOG development</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1 internal subaward guidance updated to include clear guidelines based on best practices for SMOG development and partner management</td>
</tr>
<tr>
<td>6.2.2</td>
<td>Develop guidelines for more standardized means of verification across partnerships</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1 means of verification guidance updated to include clear guidelines based on best practices for means of verification development</td>
</tr>
<tr>
<td>6.2.3</td>
<td>Review existing milestones for compliance with the program's new means of verification guidelines</td>
<td>175</td>
<td>225</td>
<td>0</td>
<td>225 active milestones reviewed and confirmed according to best practices for developing milestone means of verification</td>
</tr>
<tr>
<td>6.3.1</td>
<td>Consult with gender expert to develop a strategy for improving the program's impact on women</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1 program gender strategy submitted to USAID on February 22, 2016</td>
</tr>
<tr>
<td>6.3.2</td>
<td>Submit the resulting strategy to USAID for concrete activities to incorporate gender impact</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>4 broad activities added to the work plan, including targeting women customers, increasing women's workplace opportunities, documenting women's empowerment, and improving internal systems</td>
</tr>
<tr>
<td>6.4.1</td>
<td>Develop a packet of introductory information for partners and subpartners</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1 introductory partner packet developed</td>
</tr>
<tr>
<td>6.5.1</td>
<td>Conduct exit interviews with closing partners to identify best practices and lessons learned</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>4 exit interviews and close out calls with closing partners AGCO, Surehatch, Moana, and Netafim conducted; 2 interviews with AATF and Mercy Corps canceled due to extension of partnership end dates</td>
</tr>
<tr>
<td>6.5.2</td>
<td>Conduct cross-partner studies to identify broader program findings</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2 cross-partner studies completed on selling drip irrigation to the smallholder market and commercializing new seed technology</td>
</tr>
</tbody>
</table>