FEED THE FUTURE
The U.S. Government's Global Hunger & Food Security Initiative

FEED THE FUTURE UGANDA AGRICULTURAL INPUTS ACTIVITY

Final Report (November 2012–November 2017)

USAID
FROM THE AMERICAN PEOPLE

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Photo: An agro-dealer and shop attendant await customers in their retail store full of agricultural inputs.

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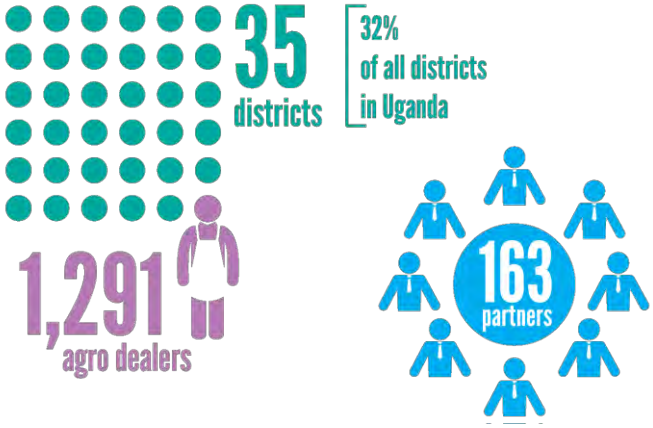
ACRONYMS AND ABBREVIATIONS

Ag Inputs	Feed the Future Agricultural Inputs Activity
AMELP	Activity Monitoring, Evaluation, and Learning Plan
BGS	Business Growth Specialist
CAN	Climate Action Network
CLA	Collaborating, Learning, and Adapting
CLIIC®	Certificate-Level Intensive Interactive Course
COMESA	Common Market of Eastern and Southern Africa
CPMA	Feed the Future Uganda Commodity Product and Marketing Activity
CSBS	Customer Service Business Strategies
DAO	District Agricultural Officer
DLG	District Local Government
EEA	Feed the Future Enabling Environment Activity
ERICCA	Education, Research, and Innovation in Climate Change
FGD	Focus Group Discussion
GOU	Government of Uganda
ICT	Information and Communication Technology
IFDC	International Fertilizer Development Center
IFPRI	International Food and Policy Research Institute
IR	Intermediate Result
KEPHIS	Kenya Plant Health Inspectorate Service
M&E	Monitoring and Evaluation
MAAIF	Ministry of Agriculture, Animal Industry, and Fisheries
MIT	Massachusetts Institute of Technology
MoLG	Ministry of Local Government
MTIC	Ministry of Trade, Industry, and Cooperatives
NARO	National Agricultural Research Organization
NSCS	National Seed Certification Service
OWC	Operation Wealth Creation
PDP	Preferred Distributor Program
POA	Feed the Future Producer Organization Activity
SACCO	Savings and Credit Cooperative Organization
SMS	Short Message Service
SSP	Spray Service Provider/Provision
UGX	Ugandan Shilling
UNADA	Uganda National Agro-Dealers' Association
UNBS	Uganda National Bureau of Standards
UNFFE	Uganda National Farmers Federation
URA	Uganda Revenue Authority
URSB	Uganda Registration Services Bureau
USAID	United States Agency for International Development
USD	U.S. Dollars
USTA	Uganda Seed Trade Association
YLA	Feed the Future Youth Leadership in Agriculture Activity

EXECUTIVE SUMMARY

The Feed the Future Uganda Agricultural Inputs (Ag Inputs) Activity was a five-year United States Agency for International Development (USAID)/Uganda-funded program to promote the responsible use of agricultural inputs in Feed the Future target districts. The Activity empowered and engaged women, men, and youth to achieve its objectives to increase the use of high-quality agricultural inputs in Uganda through increased availability of high-quality inputs to farmers, and to decrease the prevalence of counterfeit agricultural inputs. The Activity was implemented from 2012 to 2017 in 25 Feed the Future target districts and 10 adjacent market hubs, covering 32% of all districts in Uganda.

The Activity worked with 3,280 businesses in the agricultural inputs supply chain to shift business behaviors and performances from traditional trading practices toward customer-centric business strategies to solve farmer's problems. The Activity used an innovative market systems facilitation approach, leveraging market forces, and collaborating with 163 public and private partners to change behaviors and to facilitate adoption of new customer-oriented marketing practices.



In October 2014, USAID/Uganda invested an additional US$2.5 million to the Activity to strengthen the seed sector, increasing the Activity's budget to US$10 million.

The Activity embraced the collaborating, learning, and adapting (CLA) approach to fine tune its understanding of market dynamics and adapt activities accordingly. In June 2015, at the Activity's midpoint, the Activity conducted a strategic assessment which concluded that changes in the agro-inputs sector were not happening as quickly as expected. In response to these findings, the Activity shifted its theory of change to focus on incentives to crowd in quality inputs, and for counterfeit agro-input suppliers to exit the market.

AG INPUTS ACTIVITY RESULTS AND ACHIEVEMENTS

- **47,247** farmers, agro-input retailers and employees, and local stakeholders from the public and private sectors were reached over five years by the Activity. 38% were women, and 31% youth.

Intermediate Result 1: Increased availability of high-quality inputs

The Activity encouraged 3,280 private sector firms to adopt customer management systems to improve customer service practices and improve their business skills and financial literacy, with the goal of increased sales of agro-inputs. Six hundred and twelve firms reported operating more profitably.

- 1,973 private enterprises and associations applied new climate-smart technologies or management practices, surpassing the target of 400 actors by 400%.
- US$1.8 million in private sector investment was leveraged by the Activity, quadrupling targets.

- Utilizing social and behavior change communication and marketing strategies, targeted firms disseminated 1,788 informational messages, and stakeholders implemented 9,117 marketing and promotional activities.
- The proportion of agro-input firms reporting no stock outs of critical products, hybrid maize seed, glyphosate, and NPK fertilizer fell from 75% in Year 3 to 23% in Year 5, largely as a result of Operation Wealth Creation.

Intermediate Result 2: Decreased prevalence of counterfeit agricultural inputs on the market

- In collaboration with Uganda National Farmers Federation (UNFFE), the Activity trained **834** local stakeholders on the repercussions of counterfeit agro-inputs, who then sensitized more than **15,166** farmers in **28** districts.
- The Activity launched an anti-counterfeit public education campaign, which reached **5 million farmers** with anti-counterfeit information and messages.
- The Activity facilitated the launch of an e-verification initiative, by which farmers can verify the source and branding of purchased agro-inputs through a mobile phone-based short message service. The e-verification system is implemented by the Uganda National Bureau of Standards in collaboration with mPedigree. **Eleven** private sector companies are currently participating in the e-verification initiative. Over **2.9 million** e-verification labels have been applied to **27** products to date. The system registered nearly **150,000** verification messages from January through September 2017.
- The Activity organized business registration clinics in **27** districts in collaboration with various government agencies and Uganda National Agro-Dealers' Association, where **629** agro-dealers were registered. The Compliance Handbook was launched in 24 districts. **Fifteen** districts have drafted or developed anti-counterfeit by-laws.

Seed Sector Strengthening

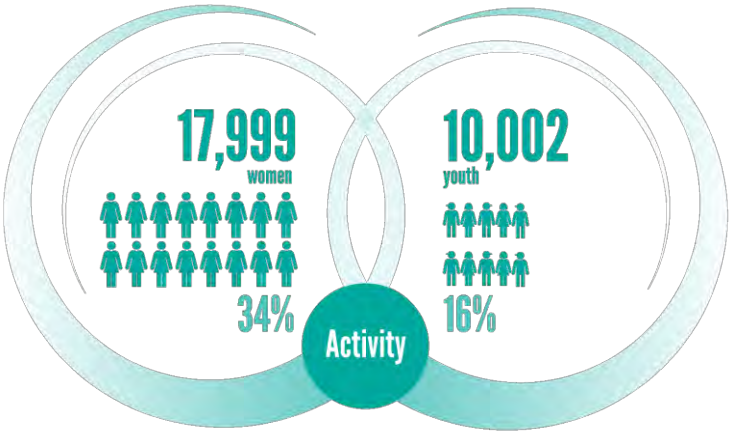
- The Activity supported the formation of AgVerify, a new private seed verification initiative, and championed the effort with a launch of the initiative and public education campaign. AgVerify offered inspections and lab testing services to five seed companies for two seasons; while nine seed companies signed up for the 2017 Season B season. These inspection and lab services are being offered on a fee-for-service basis to companies that register for the voluntary quality mark. AgVerify has applied for Ministry of Agriculture, Animal Industry, and Fisheries (MAAIF) accreditation.
- **Sixteen** seed companies participated in the training of inspectors through the Certificate-Level Intensive and Interactive Course (CLIIC®), completed in 2017.

Youth

The Activity increased youth employment and entrepreneurship, forming youth spray service businesses, and enhancing business skills and financial literacy. Youth below 30 years of age own **16%** of agro-input retail businesses, while **38%** of agro-inputs business employees are below the age of 30.

Gender

The Activity encouraged firms to adapt customer service business strategies and marketing to target women customers, and promoted women's participation in all activities. The Activity reached **17,999** women, which represented **38%** of all stakeholders reached over the life of the Activity. Thirty-four percent **(34%)** of agro-dealers were women, while women represented half of agro-inputs business employees.



RECOMMENDATIONS

While the Activity made significant strides in the agro-inputs sector, challenges remain to be addressed by permanent market actors. The Activity recommends the following:

- Significantly strengthen the sustainability of the e-verification system by improving service delivery to clients to encourage the participation of more agro-input supply companies, which will require greater transparency and collaboration between REN Publishers and their subcontractor, mPedigree.
- Lobby MAAIF to make e-verification mandatory for all agro-input products, to safeguard farmers from exposure to counterfeit agro-inputs.
- Streamline the agro-dealer registration process and empower district production departments to take ownership of the process, which includes receiving payment, issuing applications, inspecting agro-dealer premises, and submitting recommendations to the Agricultural Chemicals Board. Other government ministries and agencies have simplified, online application and payment processes, allowing mobile money payments and bank transfers, which MAAIF should consider replicating.
- Grant AgVerify accreditation to carry out inspections on behalf of the National Seed Certification Service. As long as this accreditation is not granted by MAAIF, there will be duplication of time and effort. With AgVerify's accreditation, MAAIF would conduct regular audits on AgVerify's work as outlined in Common Market of Eastern and Southern Africa (COMESA) guidelines, resulting in increased effectiveness and efficiency of the seed certification process.

Figure 1: Life-of-Activity Results, Accomplishments, and Stakeholder Support

1.0 INTRODUCTION AND BACKGROUND

Uganda has one of the lowest fertilizer application and improved seed usage rates in sub-Saharan Africa. Increased responsible use of agricultural inputs is needed to increase agricultural productivity and promote agriculture-led growth in Uganda.

The Feed the Future Uganda Agricultural Inputs (Ag Inputs) Activity was a five-year USAID/Uganda-funded program to promote the responsible use of agricultural inputs in Feed the Future target districts. The objectives of the Activity were to increase the use of high-quality agricultural inputs in Uganda through increased availability of high-quality inputs to farmers, and to decrease the prevalence of counterfeit agricultural inputs. The Activity focused on increasing the availability of quality seed, plant protection products, fertilizers, and equipment. Ag Inputs was implemented from 2012 to 2017 in 25 Feed the Future target districts and 10 adjacent market hubs, covering 32% of all districts in Uganda (see Figure 2 and Annex I).[1] The Activity's intermediate results (IRs) and sub-IRs were as follows:

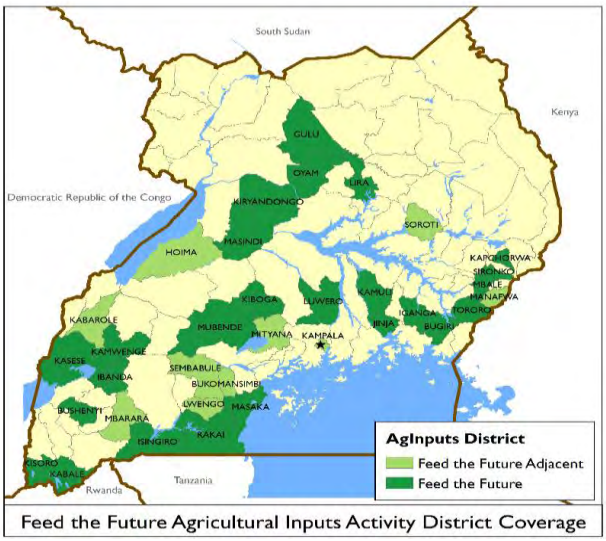


Figure 2: Ag Inputs District Coverage

IR 1: Increased availability of high quality inputs to farmers in Feed the Future focus districts through:

- Sub IR 1.1: Improved service quality through strengthened relationships along the inputs supply chain;
- Sub IR 1.2: Increased demand for high quality inputs through marketing to farmers;
- Sub IR 1.3: Increased awareness of improved inputs at national and local level through increased promotion; and
- Sub IR 1.4: Increased capacity of domestic agricultural inputs associations to serve their members.

[1] While these are not all Feed the Future districts, they are areas with strong links to national private sector input suppliers, or with wholesalers that serve as major sources of agricultural inputs for smaller retailers in neighboring Feed the Future focus districts. Because this Activity employs a facilitation approach to strengthen private sector linkages all along the agro-input distribution chain, it is not possible to limit activities or anticipated impacts to only Feed the Future districts as businesses and private sector actors work inside and outside of Feed the Future target zones.

IR 2: Decreased prevalence of counterfeit agricultural inputs through:

- Sub IR 2.1: Strengthened capacity of firms to implement quality assurance programs such as e-verification; and
- Sub IR 2.2: Increased coordination amongst the supply chain actors in ensuring product quality.

USAID/Uganda added a seed sector strengthening component to the Activity's scope of work in October 2014, which increased the total program budget by US$2.5 million to a total of US$10 million. The seed sector component is designed to achieve the following IRs:

- Increased quantity and quality of improved maize (30%) and bean (15%) seed on the market in Uganda;
- Increased operational efficiency of seed companies and other multipliers to produce improved maize and bean seeds for entry into the market; and
- Increased numbers of farmers able to access improved varieties of maize and bean seed.

The Activity employed customer service business strategies (CSBS), a market systems facilitation approach, and USAID's Collaborating, Learning, and Adapting (CLA) framework. The Activity worked with businesses in the agricultural inputs supply chain to shift business behaviors from a focus on products and prices, to customer-centric business strategies to increase the number of clients through customer loyalty. The Activity adopted an innovative market systems facilitation approach to scale up behavior change and promote sustainability through local ownership and multi-stakeholder collaboration. The Activity integrated the CLA framework by emphasizing broad reaching communication and partnerships to foster systemic change and to identify and share best practices across a coalition of stakeholders. The Activity closely collaborated with 163 public and private sector actors, including the Feed the Future Enabling Environment Activity (EEA), the Feed the Future Commodity Production and Marketing Activity (CPMA), the Feed the Future Youth Leadership in Agriculture Activity (YLA), the USAID-funded Feed the Future Producer Organizations Activity (POA) and Community Connector, the Uganda National Agro-dealers Association (UNADA), CropLife, the Uganda Seed Trade Association (USTA), the Uganda National Farmers Federation (UNFFE), district and local governments (DLGs), and various government ministries, in addition to private sector suppliers and agro-dealers. A complete list of Activity partners is included in Appendix II.

In June 2015, the Activity conducted a midterm strategic assessment, which concluded that changes in the agro-inputs sector were not happening as quickly as expected. The Activity responded by shifting its theory of change to focus on influencing the formal and informal rules of the game (see text box), particularly the incentives for farmers to demand genuine inputs, and for counterfeit agro-input suppliers to exit the market. The Activity reorganized its staff into eight task forces or thematic areas with crosscutting activities to integrate women and youth in the agro-inputs supply chain. This final report summarizes the Activity's theory of change shift, strategic approach, key achievements, performance on indicators, knowledge management, best practices, and recommendations.

Rules of the game include both formal and informal factors that affect the incentives for good business practices. They go beyond the legal regulations to include the actual processes of enforcement of those regulations, the level of customer awareness and demand for quality products and services, the skill level of competitors, and the relationships within the supply chain.

2.0 SHIFT IN THEORY OF CHANGE AND STRATEGIC DIRECTION

The Activity initially crafted a theory of change based on underlying assumptions determined at inception. The Activity structured its activities and staff around a three-pronged, multifaceted approach to achieve Activity objectives. Following the addition of a new seed sector component in 2014 and a midterm strategic assessment in 2015, the Activity revised its theory of change and subsequently restructured and reorganized its activities and staff around seven task forces or thematic areas.

At its inception, the Activity identified the following systemic issues that hinder use of agro-inputs by farmers and affect the prevalence of counterfeit agro-input products on the market:

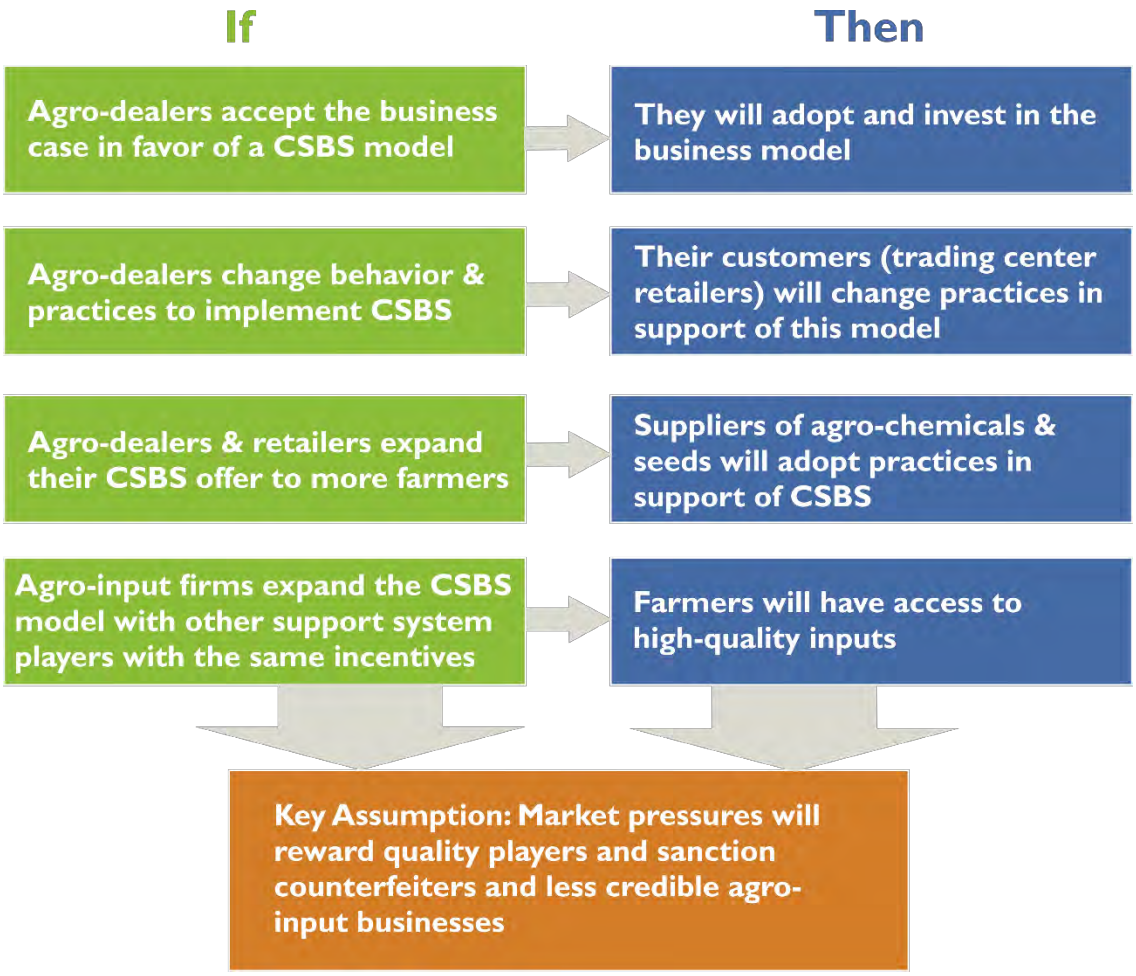
1. Smallholder farmers' lack of awareness of the benefits of agro-inputs and their misconceptions about their economic and social costs relative to potential benefits, which is a consequence of a lack of effort by agro-input businesses to market and promote the benefits of their products to farmers.
2. Actors up and down the value chain compete mainly on price, especially at the retail level, and much less on business reputation or additional value in quality products or related services.
3. The retail segment is dominated by numerous micro- and small-scale businesses that are ill equipped to expand their customer base or provide additional services and information to farmers.
4. Minimal to no cooperation or coordination exists between actors in supply channels from agrochemical and seed companies to retailers and farmers, which leads to cost inefficiencies, stock-outs, poor marketing and market planning. The prevalence of counterfeit products is a result of this weakness in the system, as well as the focus of businesses on price-related competition noted above.

Counterfeit and authentic plant protection products side by side to show the difficulty in spotting the difference at a training at the sub-county level

5. Regulatory bodies are weak, unable to certify and monitor the performance of registered companies.
6. The insufficient supply of quality improved seed creates a major opportunity for counterfeiters to fill supply gaps. Insufficient supply is due to the lack of internal systems within seed companies to assess, develop, and meet demand for improved seed, as well as the lack of seed quality standardization, inspection, and certification measures.

Based on this understanding, the Activity sought to promote agribusiness performance improvements including a broad range of new and improved CSBS. These performance improvements were designed to improve relations and efficiencies in the agro-inputs distribution chain, to reward businesses selling genuine products and assisting farmers to make good decisions, raise consumer (smallholder farmer) confidence in the products available, and increase the overall use of agro-inputs. The key assumption supporting the Activity's initial theory of change (Figure 3) is that market pressures will reward quality players and sanction counterfeiters and less credible agro-input businesses.

Figure 3: The Ag Inputs Activity's Initial Theory of Change



To support its original theory of change, the Activity initially used a three-pronged approach to develop role models of CSBS in the agro-inputs industry, increase the provision of business products and services to agro-input firms that enable firms to adopt CSBS, and leverage professional and social networks to reinforce the supply and demand for CSBS. The Activity structured its staff into three major implementation teams: Role Models, Support Systems, and Networks and Noise. A description of the responsibilities of each of these teams is given below.

1. **Role Models:** Develop CSBS role models within existing and new businesses in the agro-inputs distribution chain that have the potential to influence the behavior of others. Targeted firms included manufacturers and seed companies, importers and distributors, and wholesalers.

2. **Support Systems:** Increase the provision of new services and products to businesses throughout the agro-inputs distribution chain that enable the adoption of CSBS. Targeted firms included

business and financial management services, information and communication technology (ICT), industry associations, and the Government of Uganda (GOU).

3. **Networks and Noise:** Foster networks of people that enhance learning and spread innovations ultimately resulting in improved performance in the agro-inputs distribution chain. Generate disruptions to the status quo in the agro-inputs distribution chain that overcome peoples' inertia and speed the momentum of systemic change toward customer-oriented business practices. Targeted networks included business and professional networks, community and social circles, and friends and family.

The Support Systems and Networks and Noise components reinforced the Role Models component to ensure adoption of CSBS throughout the agro-inputs industry.

As part of the Activity's integral CLA approach, the critical assumptions driving the Activity's initial theory of change were reviewed during a midterm strategic assessment conducted by two external consultants in May and June 2015. The strategic assessment methodology involved analyzing monitoring and evaluation (M&E) data and interviewing staff and market actors during field visits, which resulted in the following conclusions:

- There is an ever-expanding presence and increased sophistication of counterfeits.
- There is downward pressure on agro-input prices because of cheap counterfeits and poor quality products.
- In the absence of adequate enforcement, quality conscious suppliers who do not trust the distribution chain have resorted to costly direct sales models and other inefficient business strategies designed to bypass the distribution chain from quality-conscious suppliers, who do not trust the distribution chain.
- The sector continues to include a high number of unqualified, irresponsible business people who prioritize "getting rich quickly" over long-term growth.
- There is a lack of regulations, barriers to entry, and standards and their enforcement to confront poor quality and counterfeit problems.

An agro-dealer in his store

The findings of the strategic assessment suggested that agro-inputs industry dynamics have changed since the Activity's initial assessment and that the Activity may have underestimated or under-emphasized the pervasive role of counterfeits and the resulting lack of confidence in agro-inputs by farmers, which reinforces low agro-input use by farmers. Because of changing dynamics, the Activity was under-emphasizing the

pervasive and devastating role that counterfeits *and* poor quality have on farmers' propensity to use and trust agro-inputs.

While the Activity had previously recognized that the incentive to sell counterfeits was high, given the preference for buying and selling the lowest-cost products available, the drivers behind the prevalence of counterfeits were not sufficiently addressed in the initial theory of change. It was assumed that market pressures would reward good business behaviors, but the desire to buy the cheapest product continuously rewarded counterfeit actors. Government subsidies and seeds distributed through Operation Wealth Creation (OWC) also distorted agro-input market demand and supply.

Given these findings, the Activity recognized the need to facilitate improvements in the "rules of the game" before CSBS investments were likely to take off on a large scale, which led to a revision of the Activity's theory of change. Essentially, the revised theory of change added a critical step before improved CSBS will be widely adopted by agro-inputs businesses. Figure 4 illustrates how this theory of change has evolved, incorporating the initial theory of change but inserting the preconditions related to changing the rules of the game.

Figure 4: The Ag Inputs Activity's Revised Theory of Change

The midterm strategic assessment suggested that promoting CSBS was not enough on its own. The competitive environment needs to improve before agro-input businesses will have sufficient and widespread incentives to invest in CSBS. With the addition of the seed sector work in September 2014, there was also need to integrate new interventions in the Activity's approach and strategy. The Activity adapted to its revised theory of change by reorganizing its interventions and staff into seven key thematic areas: anti-counterfeit campaign, e-verification, quality seed, climate change, professional spray service provision (SSP), compliance, distribution, and access to finance. Descriptions of each thematic area are presented in Table 1 below. Anti-counterfeit campaign, e-verification, quality seed, climate change, SSP, and compliance focus on improving the competitive environment through fair and effective regulation and enforcement that improves quality, reduces counterfeits, and restores farmer confidence in the benefits of agro-inputs. Distribution and access to finance are slightly longer-term visions that were expected to gain more traction once the rules of the game operate more effectively.

Table 1: The Activity's Revised Thematic Areas in Support of New Theory of Change

Thematic Area	Description of Activity Support
1. Anti-Counterfeit Campaign	The Activity facilitated an intensive communications campaign, collaborating with public and private sector actors such as UNFFE, local radio, and local communications firms to educate farmers on the dangers of counterfeits, stimulate farmers' demand for high-quality genuine products, and encourage farmers to advocate for effective enforcement efforts regarding counterfeit products.
2. E-Verification	The Activity launched an innovative ICT solution, e-verification, which allows consumers to validate the authenticity of products purchased. This approach was conducted in close collaboration with the private sector, in an innovative public-private partnership.
3. Quality Seed	The Activity supported the development of a credible, affordable, and high-quality private sector seed certification (quality inspection and testing), for legitimate companies to differentiate themselves and increase farmer confidence in their high-quality products. The Activity worked in close collaboration with the Ministry of Agriculture, Animal Industry, and Fisheries (MAAIF), as well as local and regional seed producers.
4. Climate Change	The Activity supported the dissemination of important climate change information through identifying and building the capacity of "climate change champions" and the development of Climate Action Networks (CANs) as vehicles, in collaboration with three other Feed the Future Activities.
5. Professional Spray Service Provision	The Activity worked with key actors to promote training and certification of plant protection product suppliers and retailers, and enhance youth employment and entrepreneurship opportunities through professionalized SSP. SSP safely and effectively applies agro-chemicals, reduces misuse, and increases value from agro-inputs. The approach focused on both the supply and demand for services, and was implemented in collaboration with Feed the Future CPMA, local government, CropLife, and local agro-dealers.
6. Compliance	The Activity facilitated the coordination of public sector bodies to inform and educate agro-input firms on regulatory compliance (e.g., licensing and tax), and informal rules and norms. The MAAIF was linked with DLGs for more effective decentralization of regulatory functions, and DLGs were assisted with the formulation of local, anti-counterfeit by-laws.

Thematic Area	Description of Activity Support
7. Distribution	Streamlined distribution channels allow for greater quality control and traceability throughout the sector. Ag Inputs worked with seed and plant protection product wholesalers to assess and pilot innovative distribution models to increase access and availability of high-quality inputs for farmers.
8. Access to Finance	The Activity worked with key market actors in finance and agro-inputs supply and distribution to stimulate demand for appropriately packaged, affordable working capital, and then narrow the divide between supply of and demand for financial products.

Thematic areas cut across multiple sub-IRs, and contributed to the achievement of IRs in synergistic ways, as depicted in Table 2.

Table 2: Relationship between Thematic Areas and Activity IRs and Sub-IRs

	IR 1: Increased availability of high quality inputs to farmers in focus districts				**IR 2: Decreased prevalence of counterfeit agricultural inputs**	
Results	Sub-IR 1.1 Strengthen Relation-ships	Sub-IR 1.2 Increase Demand	Sub-IR 1.3 Increase Awareness	Sub-IR 1.4 Strengthen Capacity	Sub-IR 2.1 Increase Quality Assurance	Sub-IR 2.2 Increase Coordination for Quality
Anti-Counterfeit						
E-Verification						
Quality Seed						
Climate Change						
SSP & Agro-Dealers						
Compliance						
Distribution						
Access to Finance						

To assess progress toward achieving intended results, the Activity measured indicators at multiple levels corresponding to its market systems facilitation approach. These included:

1. **Activities**: Interventions that staff themselves conducted with market actors.
2. **Market systems change**: This is what occurred in the system following Ag Inputs' interventions. This was further subdivided, for Ag Inputs' purposes, into three hypothesized "stages" of market systems change:
   A. **Stakeholder responses:** the most immediate actions taken by market actors to achieve desired change. Changes in stakeholder response indicated that they were "responding" to activities by acting in a certain way.

B. **Changes in the "rules of the game":** Stakeholder responses were intended to bring about changes in the functioning of the agro-inputs industry, especially around rules and norms for doing business.

C. **Improvements in quality and CSBS:** Changes to rules of the game were intended to incentivize more businesses to supply quality products and invest in CSBS (and/or sanction those that do not, whether formally through rules/regulations or informally through norms and customer actions).

3. **Impact on farmers**: The Activity did not directly measure this, as the Feed the Future Uganda CPMA conducts significant monitoring at this level. However, Ag Inputs' two IRs are expected to *contribute* toward impacts at the farmer level.

Ag Inputs' M&E system provided evidence at all levels of the Activity's theory of change and strategy, to help the team monitor and measure if the strategy is working, enable tactical shifts on a timely basis, and demonstrate plausible contributions to impact. The Activity conceptualized market systems change in three "stages" that ultimately lead to achievement of the IRs.

Figure 5: Illustrative Levels of Inputs, Outputs, System Change, and Impacts

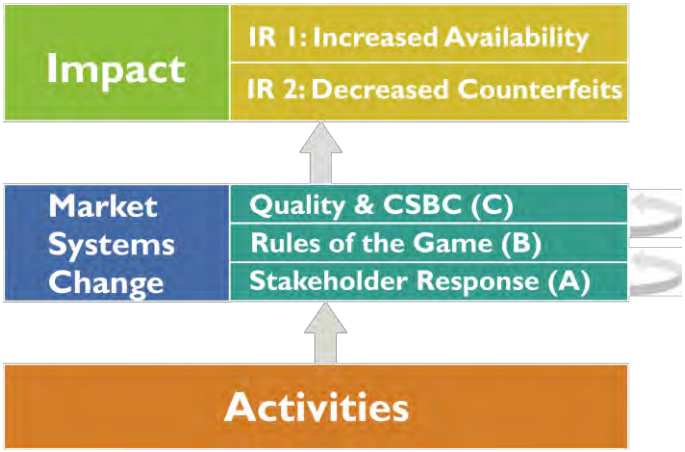


Figure 5 explains that "stakeholder responses" (A) are the first early signs of systems change, where stakeholders take on new or improved roles and functions. Many of these new roles and functions were oriented around improving the rules of the game (B), which look at the formal regulatory environment and informal rules/norms that govern the industry. By improving the rules of the game to reward good behavior and sanction bad behavior (especially around selling counterfeit or substandard products), there will be stronger incentives to invest in quality and CSBS (C). Improved regulatory environment combined with investments in quality products and services was expected to lead to achievement of the Activity's objectives. Indicators used to monitor stakeholder responses and resulting impact are summarized in the next section. For more information on how the Activity measured market system change, please see Annex III.

The Activity conducted an end-of-Activity internal assessment to capture successes, failures, and lessons learned, to address remaining knowledge gaps, to contextualize Activity results, and to contribute to end-of-Activity communications materials that informed end-of-Activity stakeholder meetings. An internal exercise conducted with support and input from the Tetra Tech home office team, the assessment took place May through July 2017. The team carried out the assessment in close collaboration with USAID and the Market Systems Monitoring Activity implemented by the Massachusetts Institute of Technology (MIT) and George Washington University. The executive summary of the findings from the assessment is in Annex V; along with a description of the assessment methodology in Annex IV.

3.0 ACHIEVEMENTS AND INNOVATIVE APPROACHES

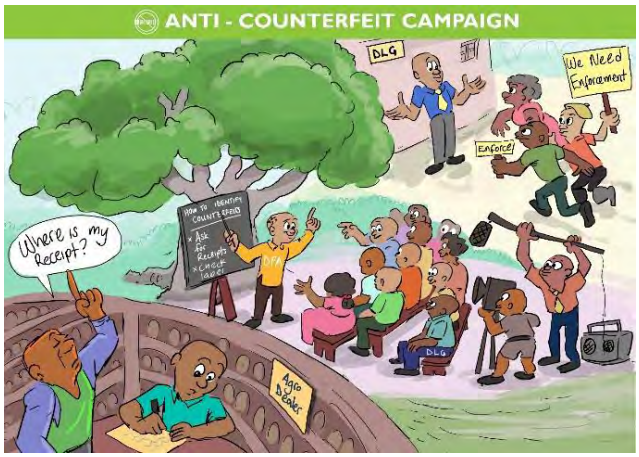
This section describes achievements and life-of-Activity progress toward targets in the approved Activity Monitoring Evaluation and Learning Plan (AMELP). Innovative approaches and achievements are presented by the eight thematic areas that cut across IRs and sub-IRs, including integral crosscutting themes, such as youth and gender. Performance against expected results (i.e., increasing the availability of high-quality agro-inputs to farmers, and decreasing the prevalence of counterfeit agricultural inputs) is summarized in this section. Activity success stories are in Annex VII.

Table 3: Life-of-Activity Indicator Performance

Indicator	Target Y5	Actual Y5	% Achieved	Life of Activity
IR 1: Increased availability of high quality inputs to farmers in focus districts				
Number of private enterprises and associations receiving USG assistance	2,000	2,280	114%	3,280
Number of private enterprises or organizations that applied new technologies or management practices as result of USG assistance	400	892	223%	1,973
Number of individuals who have received short-term training	1,000	2,348	235%	4,044
Value of new private sector investment leveraged by Feed the Future implementation	$300,000	$1,389,146	463%	$1,831,173
Number of firms now operating more profitably	200	274	137%	612
Number of stakeholders with increased capacity to adapt to the impacts of climate variability	500	589	118%	491
Total number of marketing and promotional activities implemented by stakeholders	800	1,261	158%	9,117
Number of farmers/ beneficiaries reached as a result of USG assistance	15,000	15,457	103%	49,287
Total number of informational messages disseminated by targeted firms	500	1,031	206%	1,788
IR 2: Decreased prevalence of counterfeit agricultural inputs				
Percentage of industry association members perceiving fewer counterfeits on the market compared with the past year	60%	64%	107%	

Indicator	Target Y5	Actual Y5	% Achieved	Life of Activity
Percent of industry association members participating in genuine product assurance schemes	90%	90%	100%	
Percentage of agro-dealers who think that suppliers are doing enough to ensure products are not counterfeited	70%	78%	111%	

3.1 ANTI-COUNTERFEIT CAMPAIGN



Counterfeit agro-input products have proliferated in the Ugandan market, affecting as much as 30-50% of the market. This trend will continue unless there is a united and concentrated effort to educate consumers, unite stakeholders to work together, and develop and enforce rules and regulations.

To this end, the Activity partnered with the Uganda National Farmers Federation (UNFFE) and district local governments to educate farmers on the implications in the use of counterfeit agro-inputs, to identify them, and to demand enforcement from local and national authorities. The proliferation of poor quality and counterfeit inputs leads to unrealized expectations of productivity increases and minimal investment returns; disincentivizing farmers from adopting improved production practices.

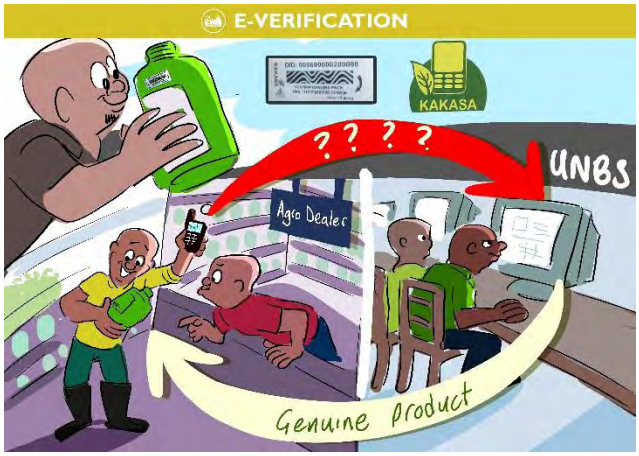
The UNFFE conducted a training of trainers' exercise with **834 local stakeholders** in 28 districts. Forty-eight percent of these participants were women. These local stakeholders went on to train more than **15,166 farmers** in sub-country-level trainings. The Activity also reached **5 million farmers** with anti-counterfeit information and messages through a public education campaign.

An advertisement promoting the counterfeit agro-inputs reporting hotline

Ag Inputs found that after the campaign, farmers are more knowledgeable of quality inputs and the impacts of counterfeits, and have been demanding high-quality inputs. Exit interviews from agro-dealer shops revealed that 36% more farmers request receipts after the trainings and

campaign. The practice of checking expiration dates increased modestly by 10%, while inspecting the integrity of package seals was low (21%). These results indicate that continued sensitization is needed.

3.2 E-VERIFICATION



The prevalence of fake, counterfeit, and substandard inputs on the market is harmful to farmers. The effectiveness of counterfeit inputs is low, resulting in poor crop yields. These negative experiences lead to farmers' lack of confidence in the value of improved inputs. While the anti-counterfeit campaign educates farmers on the negative effects of counterfeit inputs, initiatives are needed to bolster genuine agro-input products on the market and restore farmer confidence.

The Activity supported the introduction of e-verification (locally known as KAKASA) as a digital IT solution, which is the process of tagging or labeling products (also called e-tagging) with a unique identifying code that is difficult to replicate. At the point of sale in an agro-dealer shop, consumers can verify that the seed or plant protection product they are purchasing is a genuine product. Using a mobile phone short message service (SMS), the consumer can access a fee call line to receive an automatic message with confirmation of the product's origin and details. Only agro-input suppliers registered with MAAIF can participate in KAKASA. New companies pay a one-time registration fee of US$500 and pay UGX 60 (less than $0.02) per e-tag.

To build awareness of this technology, its benefits, and explain how it works, the Activity worked with local media firms to develop an engaging, multi-faceted public education campaign in 2016 called KAKASA, which means "to verify" in Luganda. The campaign consisted of a formal launch of the e-verification system, district and national talent competitions hosted by local radio stations, road shows, radio announcements, wall branding, and printed point of sale materials. The Activity partnered with UNADA to train 1,302 agro-dealers, farmers and government officials on e-verification.

Table 4: Season B 2016 E-Tagged Products

Product	No.
Glyphosate	4
Maize	10
Beans	5
Soya	1
Cowpeas	1
Rice	4
Groundnuts	1
Cabbage	1
Total	**27**

Eleven agro-input companies signed up to participate in the first season (March–June 2016). However, only a modest stock of Weed Master and Roundup was appropriately e-tagged because of delays in the delivery of tags. By 2017, 27 different products were sold with e-verification labels (see Table 4). To date, over **2,873,000 labels** have been applied to these products. E-tagged hybrid maize seed from Kenya Seeds has also been sold in Uganda since Season B 2016.

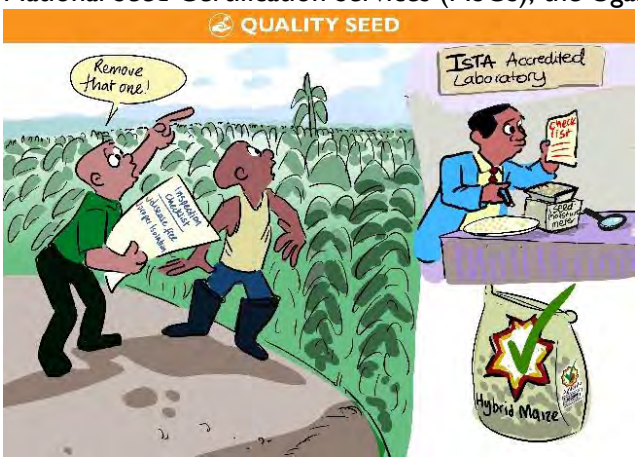
A random sample of 2,000 households and 100 agro-dealers participated in the post-educational campaign survey in October 2016. Findings showed that 66% had bought agro-inputs such as seeds, fertilizers, and plant protection products. Ninety-five percent of agro-input dealers interviewed knew about KAKASA, while 79% had sold KAKASA products and witnessed an increase in KAKASA agro-inputs purchases since its introduction in the market. Forty-two percent of the public were aware of KAKASA but only 2% said they had used KAKASA products. In a survey of agro-inputs suppliers, suppliers indicated that KAKASA had a positive impact on sales, profitability, and customer retention.

E-tagged plant protection products

Although suppliers are convinced of e-verification's value to its brand, business, and customers, there remains much work to educate farmers on e-verification's utility and use. Despite launching e-verification in Uganda, there are still a number of challenges to be addressed. Communication between the Uganda SMS line and the mPedigree cloud server has been inconsistent, which limits the ability of client companies to retrieve verification statistics from the system. REN Publisher's performance as a service provider has been problematic, failing to maintain the call center due to financial difficulties since the start of 2017. REN is counting on a grant from aBi Trust and the onset of mandatory e-verification requirements for all imports anticipated under new Uganda National Bureau of Standards (UNBS) regulation to increase the volume of services, so that service provision can break even. In late 2017, UNBS assumed control over the call center directly. The call-in line is no longer free, and the old toll-free number is automatically diverted to the new UNBS line. The positive outcome is that instead of answering calls, a UNBS operator calls the farmer back, saving the farmer the cost of the call.

3.3 QUALITY SEED

Substandard seed has an enormous impact on the Ugandan farmer, households, and the future of the Ugandan private seed sector in the form of poor yields, decreased incomes, diminished food security, and lost opportunities. COMESA is a common trade area of 19 member states that trade over US$300 million in products per year. Many of the region's major seed companies want to enter the Ugandan market with superior quality seed. Local seed companies will need to invest in product quality to meet COMESA standards, and compete for business growth. To complement the efforts of the resource-constrained National Seed Certification Services (NSCS), the Ugandan government approved seed regulations in January 2017 which allows accreditation of private service providers to offer seed certification services.



In response to seed sector opportunities, the Activity collaborated with private entities, Chemiphar, a testing lab; UGOCERT, a certification entity; Heartland Global, an agribusiness advisory firm; and leading local seed companies to develop the voluntary AgVerify quality scheme. This private sector lead quality mark complements the blue NSCS certification tag to provide an assurance of the highest quality seed standards in the region. The AgVerify quality mark is combined with e-verification to provide farmers with the assurance of a high-quality *and* a

genuine product. **Sixteen seed companies** signed up to participate in the scheme and have been trained by experienced industry experts, NSCS and USTA. AgVerify, with Activity support, conducted a 10-week Certificate-Level Intensive and Interactive Course (CLIIC®) in 2016-2017, and trained **55 inspectors** from AgVerify, seed companies, and government to ensure all parties have a common understanding of COMESA inspection and certification standards. Five seed companies invested in voluntary verification services from AgVerify in the first two seasons. As a testament to crowding in, this number increased to nine companies last season. AgVerify inspected about **7,000 tons of seed** from production farms in the last two seasons.

The AgVerify quality mark was officially launched at an event presided by the Minister of State for MAAIF and the U.S. Ambassador to Uganda in March 2017, which coincided with the launch of a public awareness campaign. The Activity subcontracted a local multimedia firm, WIZARTS Media, to execute the campaign, which consisted of a 24-episode radio drama that aired on 17 radio stations. Findings at the end of the campaign indicate increased awareness by farmers about AgVerify and the need to scratch tags to verify the quality of products purchased. The Activity collaborated with the Feed the Future EEA and other implementing partners and stakeholders to lobby government for seed policy reform, efforts which led to new seed regulations.

3.4 CLIMATE CHANGE

Climate change is one of the greatest challenges affecting today's world. As the world's climate changes, the impacts and risks related to these changes are affecting farmers' livelihoods. Uganda is vulnerable to climate change impacts, especially increased frequency and intensity of heat waves, prolonged droughts, heavy rainfall, floods, and storms. Deforestation and poor agricultural practices exacerbate these problems, resulting in deadly landslides in some regions. The lack of information surrounding topics such as weather, climate change, and environmental degradation have caused great confusion for farmers. Ugandan farmers' inability to respond to climate change and its impacts have led to poor adaptation, limited efforts at mitigation, and decreased farmer resilience. This, in turn, has reduced productivity and increased agricultural losses, culminating in lost income and food insecurity.

To fight the impacts of climate change, stakeholders must access and understand climate change information, implement techniques to adapt to climate change variability, and test adaptation technologies both at the farm and business levels. In close collaboration with the EEA, CPMA, and Education, Research, and Innovation in Climate Change (ERICCA) Feed the Future Activities, Ag Inputs identified **80 "climate change champions:"** individuals and businesses, and trained them intensively on how to access and disseminate climate change information, climate-smart practices, and technologies. Climate change champions' roles are to source information, analyze

Demonstrating climate change adaptation techniques through irrigation to farmers in Rakai District

its implications, and assist their communities and networks with strategies for adaptation. Subsequently, working closely with the climate change champions, the Activity also facilitated the development of CANs in 14 districts. The CAN consist of district farmer associations, radio listener groups, non-government organizations, civil society organizations, agricultural extension service providers, and individual farmers interested in climate change adaptation. CANs disseminate information about climate change and climate-smart agricultural practices; encourage demonstrations of climate-smart agricultural technology to farmers; and collaborate with seed companies and agro-dealers to increase demand for and supply of climate-smart seed varieties.

The Activity supported **193 climate-smart technology demonstrations** with Solar Now, Davis and Shirtliff, and Balton Uganda. As a result, sales of climate-smart technologies, particularly solar-powered irrigation systems, water harvesting options, and greenhouse systems, have been increasing rapidly. In 2017, there was more than US$1.15 million in solar pump sales. A total of **430 agro-dealers** were trained in climate change and **899 beneficiaries** attended climate change events. By the end of the project, 87% of surveyed agro-dealers were selling new drought resistant seed varieties. Of these, more than 80% reported that sale of climate-smart varieties resulted in an increase in customer retention, sales, and profits (Figure 6).

Figure 6: Suppliers Selling Climate-Smart Varieties

3.5 PROFESSIONALIZATION OF SPRAY SERVICE PROVIDERS AND AGRO-DEALERS

Historically, agricultural productivity has been low in Uganda because most farmers did not use improved seeds nor improved varieties and fertilizers, and did not apply crop protection products correctly. Many agro-dealers who sold these inputs were not trained properly to help farmers solve their production problems. Agricultural chemicals can be potentially dangerous to human health, particularly pregnant women and children, and the environment, if not applied correctly. This situation created a need to professionalize agro-dealers and train spray service providers, who offer safer, more effective, and more efficient application of agrochemicals. With high youth unemployment and population growth, the introduction of spray service provision also created the opportunity to address these problems while also creating youth employment and entrepreneurship opportunities.

The Activity collaborated with CropLife Uganda, the industry association for agrochemical importers, to professionalize SSPs. The aim was to train unemployed youth to offer expert spray services on a fee-for-service basis, while adhering to pesticide safe use guidelines. The SSPs also provide feedback on product performance to agro-dealers and their suppliers, and promote the use of quality agro-inputs throughout the value chain. Fourteen senior extension officers were trained to become SSP trainers, who in turn,

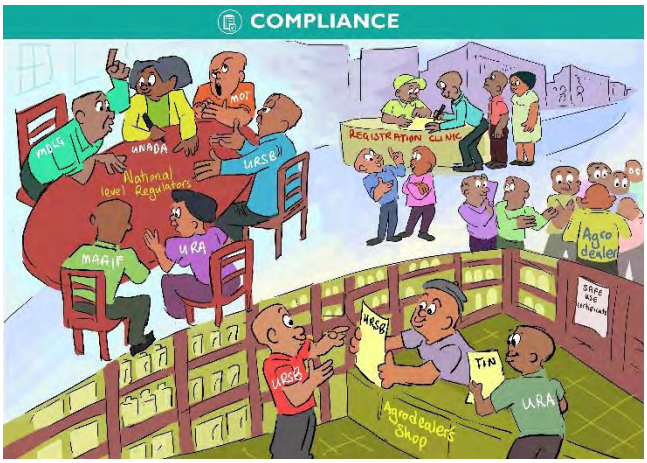
trained 149 male youth as SSPs across 10 districts. One hundred and thirty-eight SSPs were accredited and **108 SSPs (78%)** were still active by Year 5. On average, each active SSP served 27 farmers and sprayed 180 acres in 2017 Season A. According to the recent monitoring survey, the most active SSP earned **UGX 120,000,000 (US$33,023**) in one season and the average earnings per SSP is **UGX 650,000 (US$180**) per season (four months). Some of the SSPs work as agents for agro-dealers and stock agrochemicals for sale. These SSPs are a very useful resource for farmers, providing professional advice in efficient application. Sixty-six percent of the SSPs are members of farmers' organizations, serving the needs of association members.

A group of young SSPs who have completed CropLife's Safe Use course

In order to professionalize agro-dealers, the Activity formed a coalition of key stakeholders including MAAIF, CropLife, UNADA, and the Makerere University Department of Crop Science to offer safe use training to agro-dealers on a full cost recovery basis. The Activity also worked with CropLife and MAAIF to review and update the agro-dealer safe use training. Twenty individuals were trained to offer the agro-dealer safe use training. These trainers subsequently conducted 20 refresher courses for **409 agro-dealers (45% women),** who had undergone the safe use training previously. The coalition also organized 14 week-long safe use certificate courses for 395 previously untrained agro-dealers (42% women and 72% youth). As an exit strategy, this training was entirely self-financed, and did not rely on donor support for execution. Trainee assessment and certificates were managed by Makerere University. The majority of agro-dealers that attended the course (376/395, or 95%) successfully passed and were awarded certificates.

SSPs continue to be a promising source of income for youth, as well as value to farmers, agro-dealers, and suppliers. Informed agro-dealers can better meet the needs of farmers, differentiating themselves from counterfeit agro-dealers and providing important advice on the safe use of quality agro-inputs.

3.6 COMPLIANCE



Regulatory compliance is vital to a well-functioning market system as it guards against fraud and unethical behavior, ensuring that the value chain delivers products and services without compromising the safety of the people along the chain and within its ecosystem. Compliance is weak in Uganda due to a weak regulatory framework that is non-responsive to the demands of the market, facilitating the proliferation of counterfeit agro-dealers. MAAIF should be the lead regulator of the industry; yet it is resource constrained in staff, finances, and

equipment. DLGs are more present on the ground and have a vested interest in protecting their citizens, but they lack coordination and are not empowered by central government.

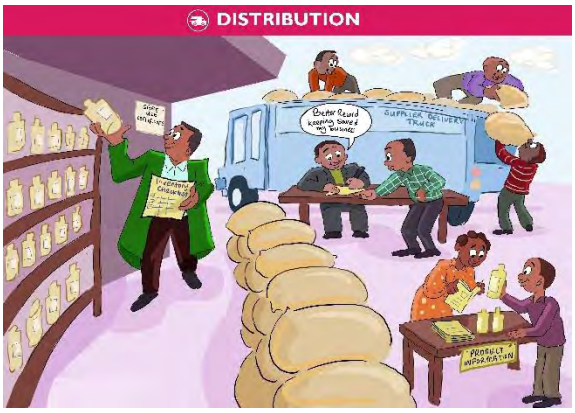
The Activity worked with relevant regulatory agencies to build a coalition to consolidate and coordinate efforts and resources of the various regulators. MAAIF, the Uganda Registration Services Bureau (URSB), the Uganda Revenue Authority (URA), the Ministry of Local Government (MoLG), and UNADA agreed to work jointly to scale up impact. This coalition planned and jointly carried out a number of activities across Uganda in collaboration with DLGs and other stakeholders, including the following:

- Developed and published a **Regulatory Compliance Handbook** for agro-inputs businesses, which was publicly launched in **24 Feed the Future districts**. Ag Inputs distributed **6,000 copies**.
- Organized 26 mobile compliance clinics to decentralize company **registration** (URSB) and tax registration (URA) services, which were attended **by 1,436 businesses**. As a result, 916 businesses were registered; of which, **629 were agro-input businesses**. This success led to URSB's adaptation of the approach to mobile business registration clinics into their core strategy. URSB is now organizing clinics independently with their own van and assigned staff. The most recent agro-dealer survey revealed that out of 341 agro-dealers surveyed, 85% have a trading license, 74% have a safe use certificate, 63% have registered with URSB, and 42% have a tax identification number, but only 9% have legally registered with MAAIF even though the Agro Chemicals Control Act of 2007 deems registration mandatory.
- Linked MAAIF and district production units to simplify and decentralize agro-dealer training, inspection, and registration.
- Trained local authorities on how to formulate anti-counterfeit ordinances and provided legal assistance and follow up. Ordinances must be passed by district councils after public consultation, and are approved by the MoLG and the Solicitor General before becoming law. **Fifteen districts** developed or drafted anti-counterfeit ordinances, which are currently at various stages in the approval process.

Participants display their Regulatory Compliance Handbooks after completing a training at a mobile compliance clinic

While there has been significant progress in strengthening Uganda's regulatory environment and regulatory bodies, collaboration and enforcement must continue.

3.7 DISTRIBUTION



The Ugandan agricultural inputs distribution system is characterized by a lack of merchant traceability mechanisms and rampant mistrust among supply chain actors. To address these challenges, the Activity coordinated the establishment of a task force of seed and agrochemical companies to research distribution channels that are effective, equitable, traceable, and trustworthy. Through collective stakeholder participation and involvement in the design and implementation of innovative strategies, importers, suppliers, and retailers worked together to address these systemic challenges. With support from Common Ground Consulting, the Activity carried out an in-depth analysis of the distribution models employed by seven agrochemical, seed, and equipment suppliers to determine each model's costs and benefits, market penetration rates, decision-making mechanisms, and level of support for other agro-dealers and retailers down the distribution chain. The key outcomes of the study were:

1. Suppliers and agro-dealers need targeted coaching and mentoring on successful alternative models operational in high performing markets within the regions.
2. Suppliers and agro-dealers must improve their internal business management practices, especially marketing and financial/inventory management.
3. Suppliers and agro-dealers should engage the GOU in discussions on subsidies such as OWC that weaken the agro-inputs distribution system. Proposed e-voucher systems are much more pro-private sector and give farmers a voice to choose quality inputs, but implementation still remains on the drawing board despite World Bank support.

Agro-input products and equipment on display at an agro-dealer's shop

Responding to the study, the Activity enlightened seven suppliers/importers on alternative distribution models, while three agro-chemical companies self-selected to pilot different models. A status of these pilots as of at the end of the Activity was as follows:

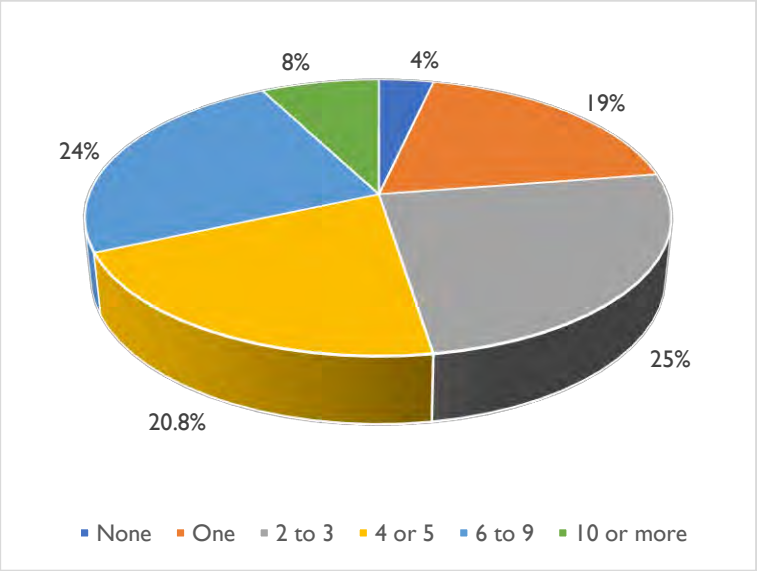
1. Balton Uganda Limited piloted the Preferred Distributor Program (PDP), a program that works with a select number of agro-dealers to establish them as regional distributors and provide them with more intensive mentoring and training support. The Activity worked with the company to create ownership and to build their capacity through various coaching and mentoring sessions. The Activity also supported Balton in the selection and mentoring of four progressive agro-dealers to pilot the model. Balton officially launched operations with these agro-dealers and is monitoring the program's progress with a view to scaling it up in the near future.

2. Bukoola Chemical Industries elected to pilot a franchise model, which is the right to use a firm's business model and brand for a prescribed period of time. Franchising in the agricultural inputs sector is a new approach in Uganda. The Activity provided Bukoola with coaching and mentoring sessions on franchising for a better understanding of the model and its benefits. The Activity then organized an experiential learning visit by Bukoola employees to the Kenya Markets Trust to observe the franchise model in action.

3. Osho Chemicals was making final preparations to pilot a PDP with several agro-dealers across the country. The Activity has provided all the necessary support to date. Osho's next steps are the selection of agro-dealers and the official launch of the pilot.

Further, the Activity supported **17 districts** to organize agro-dealer fairs where over **500 agro-dealers** established relationships with leading seed companies and suppliers/ importers of inputs. The Activity worked with **1,291 agro-dealers** over the five-year period. The most recent agro-dealer survey showed that 96% of the interviewed district-level agro-dealers have adopted at least one new business management practice (see Figure 7), which includes improved internal processes such as proper record keeping, use of financial institutions to offer after sales services, and field visits. These changes are meant to enable agro-dealers to improve their services to farmers, position themselves to capture a bigger market share, and attract increased support from suppliers. The agro-dealers selected by Balton Uganda Limited and those being considered by Osho Chemicals fall under this category and are ahead of the competition in terms of financial management, service delivery, and turnover. In a recent survey, agrochemical companies said that public education and promotion, good prices, and improved awareness and trust positively affect profitably; while seed companies listed improved awareness and trust, public education and promotion, good prices, good weather, and free inputs affect their profitability.

Figure 7: Proportion of Agro-Dealers Adopting a Number of Recommended CSBS Practices



The Activity assisted with the launch of the online Uganda Agricultural Inputs Platform (Figure 8: http://www.agricinputsuganda.com/) that encourages greater transparency in the sector, providing the public with a wide range of information about input suppliers, registered products, new varieties in the market, and agro-dealers in each locality. It was developed by Agri Experience, an ICT firm from Kenya, and based on data collected by USTA, UNADA, and CropLife. The web platform was adopted as a major output of the National Agro-Inputs Stakeholders Platform. Despite these important achievements, there is more support needed for transparent, efficient, and trustworthy distribution systems.

Figure 8: Uganda Agricultural Inputs Platform

3.8 ACCESS TO FINANCE

Agro-dealers need access to finance to grow their business, which includes expanding their inventory, investing in ICT and management systems, and training and retaining staff. Many agro-dealers continue to access loans from money lenders, who charge 5-10% interest per month. The financial sector considers agro-input businesses to be risky borrowers because of poor business management practices, such as poor record management and weak organizational structures; insufficient information on business performance or previous credit history; and diversion of borrowed funds for non-business reasons.

The Activity focused on creating linkages between financial institutions and agro-input businesses for increased understanding of the sector and improving the financial eligibility of individual agro-input businesses through lowering lending risks. The Activity worked with agro-input businesses to demonstrate their business viability and eligibility to formal lenders. Working closely with the agro-inputs businesses, the Activity improved their internal business management practices, such as record keeping, marketing and promotion, certification and compliance, financial management and reporting,

Mr. Michael Muwange, Executive Director of FACTS Africa Uganda, worked with seed companies to improve their access to finance

farmer engagement and demonstrations, corporate governance, and business succession. The Activity also facilitated continuous engagement between formal financial institutions and agro-input business to form a shared understanding of each other's business to enable them to work together more efficiently. This included incorporating ICT in product design to address risk and cost, the major impediments of financing agro-input market actors.

The Activity employed an innovative approach to financial management training using specially designed financial simulation games to increase the financial savvy of seed companies and agro-dealers and to spur additional investments in improving business management practices. **Nine private sector seed companies and 316 agro-dealers** participated in the financial simulation games. **Eighty percent of the trained agro-dealers and seed companies** invested in business management practices to improve relationships with their customers and financial institutions. Six hundred and sixty-six agro-dealers received supplier-led product knowledge and inventory training. **Fifty-four percent of agro-dealers** supported by the Activity are now accessing credit, savings, and transactional services from formal financial institutions such as banks, microfinance institutions, savings and credit cooperative organizations (SACCOs), and village savings and loan associations.

Though progress has been made improving agro-input retailers and suppliers' business management practices and knowledge to increase their access to finance, additional progress is required to advance these efforts on the part of businesses and the financial institutions.

3.9 INTEGRATING WOMEN AND YOUTH IN AGRICULTURAL INPUTS

The Activity's approach to increasing women's access to and utilization of agro-inputs is twofold. First, agro-input firms need to recognize that attracting and retaining customers, including women customers, is a rewarding and lucrative business strategy. CSBS increases agro-input use by men and women. Second, agro-input firms need to recognize that women are a sufficiently different customer segment, requiring different customer service strategies to address their concerns. Despite this encouragement, the practice of targeting business services to specifically address women's needs is not yet widely practiced. Businesses are still honing their marketing and communication skills, and counterfeit issues and other business challenges absorb much of their time and effort.

Ms. Leticia Asimwe, agro-dealer, in her store

Uganda has one of the highest population growth rates in the world, with a significant youth population[2] and high unemployment rates. To prevent potential civil unrest from the disenfranchisement of youth, youth must be engaged and employed. To that end, the Activity integrated and involved youth in all activities, particularly in employment generation and entrepreneurship opportunities. Highlights of the Activity's work with women and youth include:

- Women and youth were specifically targeted in public education campaigns. For example, specific prizes were offered for women and youth groups in the KAKASA talent competitions in each district and nationally. The voices of women and youth featured prominently in the radio coverage of the events. Of the agro-dealers trained to use KAKASA, **32% were women and 35% were youth**.
- Women and youth were heavily involved with climate-smart trainings. Thirty-nine percent of the demonstration participants were women.
- The main providers of SSP services were male youth, providing enhanced income opportunities to 149 youth with the average earnings per SSP at **UGX 650,000 (US$180) per season**.
- **Forty-eight percent of SSP** clients are women farmers. The availability of spray services allows pregnant and lactating women to farm safely without handling pesticides. Weeding is also a time-consuming task traditionally done by women. Promoting the safe use of herbicides can save women farmers precious time. Therefore, women farmers benefit in several ways from professionalized SSP services. Of the agro-dealers that attended the safe use certificate agro-dealer courses, **72% were youth and 42% were women.**

A young agro-dealer uses a laptop for good recordkeeping and inventory tracking

[2] Uganda has the world's youngest population, with over 78 percent of its population below the age of 30, and just under eight million youth aged 15–30. The median age of the population is 15.9 years of age (www.youthpolicy.org/factsheets/country/uganda/).

- Surprisingly, **women were more likely to access formal sector credit than men** (32% compared to 26% for men). Jointly owned businesses (partnerships or limited companies) are far less common, but have much higher probability of accessing formal sector credit (52%). Notably, access to supplier credit demonstrates limited differences by gender, although the proportion of youth-owned businesses receiving supplier credit is lower (44% compared to 57% for owners over 30 years of age). Women are just as likely as men to have adopted improved record keeping and are more likely to perform inventory management; while men are more likely to have opened a bank account. The Activity facilitated linkages between suppliers and agro-dealers to support women-led producer organizations for technical support in collaboration with the Feed the Future CPMA and POA.
- All compliance initiatives involved women and youth-owned businesses. The recent agro-dealer survey revealed that there were no significant differences in compliance rates among businesses owned by youth (ages 15–30) and adults (ages 30+), as well as those owned by men and women in terms of acquiring a trading license, registering with USRB, obtaining a TIN number, and receiving a safe use certificate. However, compliance rates were higher in all categories for businesses that were jointly owned (i.e. family businesses, partnerships or limited companies).

4.0 KNOWLEDGE MANAGEMENT

This section contains highlights of the Ag Inputs Activity's CLA framework.

Collaborating

Collaboration is integral to the Activity's market facilitation strategy, virtually all activities resulted from close stakeholder collaboration, and were led by partners. In total, Ag Inputs collaborated with over 163 organizations over the life of Activity (see Annex II).

Mr. Fred Kabango, DAO of Masaka District, speaking on a panel at the Ag Inputs Closeout Learning Event

The Activity closely collaborated with the government at the central and district levels, including URSB, URA, MAAIF, and Makerere University, as well as associations (UNADA, USTA, and UNFFE). Private sector support and participation was critical, particularly CropLife and participating seed and agrochemical companies. The Activity joined efforts with other Feed the Future activities and implementing partners, such as EEA, POA, YLA, CPMA, ERICCA, the International Fertilizer Development Center (IFDC), and Lutheran World Relief's AgResults initiative.

Learning and Adapting

Learning activities implemented over the life of Activity included:

- Quarterly staff review and planning workshops;
- Impact monitoring for each of the two communication campaigns;
- Structured focus group discussions with agro-dealers, farmers, and other key stakeholders in eight districts;
- Seven rounds of seasonal agro-dealer surveys;
- A supplier survey with USTA and CropLife members;
- Individual key informant interviews with 43 leading stakeholders;
- Closeout consultation and sharing meetings in 16 districts; and
- A national closeout event (see Annex VI).

Ag Inputs also worked closely with a group of students from American University who conducted research for AgVerify on the potential benefits of public-private partnerships to strengthen seed certification and improve seed quality drawing from a number of international case studies. The results of their study have been published to benefit AgVerify.

Stakeholders celebrating at the Ag Inputs Closeout Learning Event

After each learning event, the team adapted approaches, tactics, and activities to respond to changes in the market system, using best practices and lessons learned captured from these learning opportunities.

Monitoring and Impact Assessment

The Activity developed a robust monitoring system, including daily tracking of program implementation and beneficiary participation in Activity supported events using mobile devices and a cloud-based data management system, supplemented with seasonal (biannual) market system surveys. Results from these two key M&E tools were used to track Activity progress over its life. In addition, the Activity funded a baseline, midterm, and final assessment, the results of which informed and refined Activity implementation, and the identification and dissemination of lessons learned and best practices.

In addition to these routine M&E systems, several monitoring efforts were undertaken to assess the impact of the KAKASA national public education campaign. Some results from the survey were conveyed previously in Section 3.2.

The Activity also conducted exit interviews with 165 farmers who purchased agricultural inputs from agro-dealers in November and December 2016, to triangulate information on the impact of the anti-counterfeit education campaign. Eighty-eight percent of the 165 farmers interviewed were aware of the problem of counterfeit agricultural inputs, while 30% reported that they could tell the difference between genuine and counterfeits products. Sixty-eight percent had purchased KAKASA products, but

very few of them followed through with the full verification process in terms of scratching and sending a text message to verify the product.

The Activity also collaborated with a graduate student from the University of Missouri on a community research project entitled "The Role of Networks and Information and Communication Technologies (ICTs) in Agriculture Input Adoption." The study was designed to establish the level of farmer awareness and utilization of ICT, including the KAKASA e-verification system. A survey of 203 farmers from four districts revealed that 45% of households had heard about KAKASA, but only 4% felt they fully understand how it worked. Clearly, there is more work to be done to educate the public on how to use e-verification effectively.

Participants displaying their KAKASA promotional clothing and materials at a training event

The International Food and Policy Research Institute (IFPRI) will be conducting their end of Activity e-verification impact assessment in the coming months. This large-scale survey is designed to assess the level of counterfeits on the market and determine the impact of adoption of e-verification products on the incomes and productivity of households from 120 market locations around 10 market hubs in Uganda.

Finally, the Activity also collaborated with a team from MIT and George Washington University to develop tools to measure systemic changes in market systems, and changes in the strength of market relationships. The Activity also collaborated with the USAID/Uganda mission's M&E contractor to submit annual data into the Feed the Future Monitoring System and review data quality.

5.0 CHALLENGES AND CRITICAL CONSTRAINTS

There are three key areas of concern with regard to the sustainability and future impact of Activity interventions. The first is related to anti-counterfeit enforcement. Although the e-verification system provides one way to protect farmers from unscrupulous counterfeiters, greater enforcement of anti-counterfeit ordinances and by-laws at all levels is needed to push counterfeiters out of the market. This has been a major focus of Activity efforts; however, anti-counterfeit efforts need to be continued beyond the life of the Activity to consolidate progress made and to determine the ultimate impact of the e-Verification program and other Activity efforts to reduce the prevalence of counterfeit inputs. In this regard, the following are key recommendations:

- The sustainability of the e-verification system needs to be significantly strengthened. REN Publishers and mPedigree need to greatly improve service delivery to clients to encourage more agro-input supply companies to participate. This will require greater transparency and collaboration on problem solving between the two key private sector players. The Ministry of Trade, Industry, and Cooperatives and MAAIF also need to sort out their respective enforcement roles and implement the memorandum of understanding signed in 2016.
- Key stakeholders should follow the Kenyan example and lobby MAAIF to make e-verification mandatory to safeguard farmers from the dangers of counterfeits.
- The national public education campaign needs to be extended for several seasons to ensure that farmers fully understand the advantages of KAKASA and know how to use it.

A KAKASA promotional banner

The second issue is seed quality. While the Activity has made significant progress in laying the foundation for a sustainable private sector-led system for improving seed quality in Uganda—which will, for the first time, meet COMESA standards—Ugandan seed producers were unable to achieve all of the targets set when the seed sector component was added to the contract in Y3. A significant proportion of seed sold in the Ugandan market is grain purchased on the open market, cleaned, treated, and sold as seed, without verification of genetic purity. This is especially true of beans and OPV maize sold on contract to government and institutional buyers. The Activity supported the development of a private sector-led seed verification system (AgVerify) to meet international standards. The seed produced is qualitatively different from any seed that has been produced in Uganda in the past. Because of the stringent certification requirements, the volumes of seed that pass inspections were initially small. Total

production of hybrid and OPV maize, and bean seed on the market has declined, but the volume of quality seed has increase exponentially. It will take at least two more seasons to begin to measure the real impact of the AgVerify scheme, which should influence the seed sector in Uganda and in the region for years to come.

The major remaining stumbling block is the fact that MAAIF has still not responded to AgVerify's application for accreditation to carry out inspections on behalf of the National Seed Certification Service. This results in duplication of time and effort. By accrediting AgVerify, MAAIF would be able to carry out regular audits of their work as outlined in the COMESA guidelines, and the entire process of seed certification would become more effective and more efficient. AgVerify is also in need of additional funding to run a major public education and promotion campaign, and to build in-house training capacity to certify new inspectors as demand increases and more companies come onboard.

The last area of concern is lack of coordination in agro-dealer certification and distribution. The Activity has worked to roll out a joint coalition effort to train, inspect, and license all agro-dealers with direct involvement of the district production departments, CropLife, UNADA, District Farmers' Federations, USTA, and Makerere University. The agro-dealer registration process is still not fully streamlined, however, and district production departments have not been fully empowered to issue payment advice, release application forms, inspect agro-dealer premises, and submit agro-dealer registration recommendations to the Agricultural Chemicals Board. MAAIF would do well to follow the examples of other Ministries and government agencies that have simplified application and payment by hosting the process online and allowing mobile money payments or bank transfers.

K. Mubende Farm Supply store front

6.0 LESSONS LEARNED

- UNFFE has been effective in reaching large numbers of farmers with information about the dangers of counterfeits. Previously, farmers were using counterfeit inputs because they could not distinguish fake from real products. With sensitization, farmers are more knowledgeable and aware of counterfeits, demand receipts from agro-dealers, and are more outspoken raising their claims for restitution when inputs do not meet performance expectations.

- More than one season of promotion is needed for a national education campaign to fully take root and reach all farmers. Focus group meetings highlighted that while most farmers have heard of KAKASA and AgVerify, only a small proportion have had the opportunity to utilize the system and see the difference for themselves. More information in this regard will be available after the IFPRI impact monitoring study is completed.

An agro-dealer receiving his cerificate of attendance for an agro-dealer training

- Agro-dealers value services that help improve their businesses. For example, they paid full cost for safe use trainings and attended Activity meetings without transport refunds or sitting allowances. Consistent and transparent communication is critical to inform participants about such policies to avoid accusations that staff are cheating beneficiaries. Once they understand the importance of sustainable service delivery, they are willing to invest in their businesses.

- Spray service provision is a viable commercial service for youth and a way to promote the safe use of agrochemicals for farmers, but careful recruitment and linkage to district programs and farmers groups is critical to achieving sustainability.

7.0 SUSTAINABILITY PLAN

This section outlines specific sustainability issues related to the agricultural inputs sector.

7.1 SEED

At the national level, seed companies have injected their own resources to improve seed quality using the AgVerify quality mark. With nine companies signing up for inspection under AgVerify, the scheme is set to change the face of certification services within the seed sector. AgVerify and its client companies will continue to strengthen implementation but additional support is needed to:

- Continue engaging with other partners and institutions to support private sector involvement in seed quality management and certification.
- Support AgVerify Ltd to obtain accreditation from MAAIF and sustain their engagement with increasing numbers of seed companies.
- Establish a cost-effective local training model to address increasing demand for inspection and lab testing services from the sector.
- Focus development partner attention on strengthening government policies, including implementation and enforcement.

Naseco Seeds promotional sign with seeds for sale

AgVerify should take the lead in a coordinated public education campaign on quality seed together with MAAIF to avoid sending confusing messages to farmers.

7.2 COMPLIANCE

Districts continue to make progress on ordinance development to strengthen local capacity for counterfeit enforcement. A coalition of stakeholders including UNADA, Makerere, MAAIF and CropLife will continue to coordinate and offer agro-dealer safe use certificate training on a full cost recovery basis. Through the Tax Register Expansion Project, URSB and URA are collaborating to establish one stop registration centers in regional hubs.

7.3 SSP

Several organizations (including POA and IFDC) and districts are collaborating with CropLife to expand the SSP concept into new locations. MAAIF has promised to consider operationalizing a process of SSP accreditation and registration.

7.4 CLIMATE CHANGE AND ANTI-COUNTERFEITING

Most of the follow-on work in these areas will be carried out at the district level. In September, the Activity conducted 16 district closeout meetings to transition activities for district-level implementation. Each district prepared implementation plans for identified key priority challenges as summarized below.

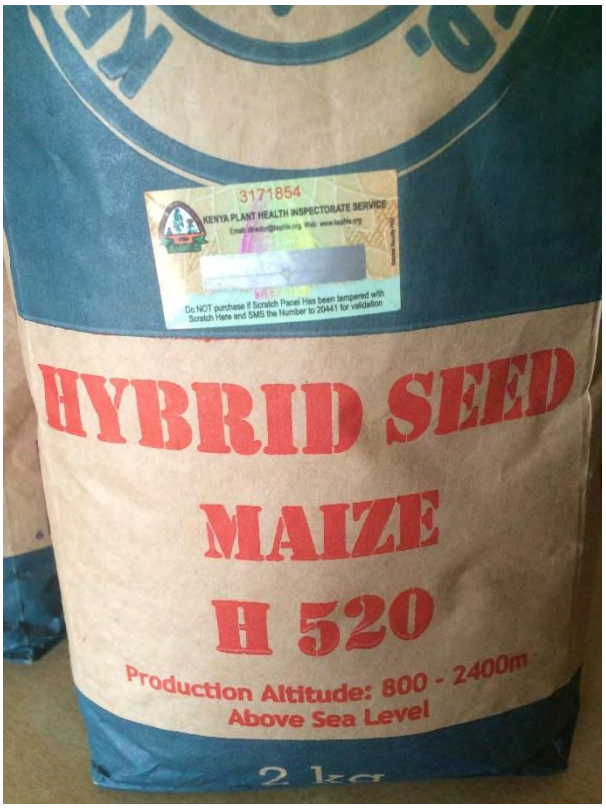
Table 5: District-Level Action Plans Developed during Closeout

District	Priority Challenges/Work Plans								
	Climate Change	Counterfeits & KAKASA	Farmer Knowledge	Access to Finance	Distribution/ OWC	Agro-dealer Registration /Inspection	Strengthening Collaboration	Rolling Out SSP	Stronger enforcement
Bushenyi	X	X	X						
Gulu				X	X				
Iganga	X	X		X					
Kabale		X	X						
Kamuli	X	X	X	X	X	X			
Kapchorwa						X	X		
Kasese	X	X				X		X	
Kiboga	X	X	X	X		X		X	
Kiryando									
Lira	X	X	X	X	X	X			
Luwero	X	X	X	X		X		X	
Masaka		X				X			X
Masindi			X	X		X		X	
Mbale						X			X
Mubende	X								
Rakai	X	X							

8.0 PROMISING PRACTICES

- Agribusinesses can maximize their business potential and management practices through improved computerized record management systems, financial reports preparation, marketing and promotion to farmers, legal and tax compliance, and human resource management.

- The Ugandan agricultural inputs sector can draw important lessons from the Kenyan model. E-verification is mandatory for all seed produced in Kenya. Further, the Kenya Plant Health Inspectorate Service (KEPHIS) is paid about US$0.6 per label for its mobilization efforts. These policy initiatives have resulted in more than 45 million labeled packages of seed in Kenya this year, earning KEPHIS more than US$250,000 in revenue, which can be used to further strengthen anti-counterfeiting efforts. A similar collaboration between e-verification and MAAIF would have great potential in Uganda.



A bag of maize seeds certified by KEPHIS

- Serious seed companies committed to quality with a desire to break into the regional market are willing to invest in stringent quality management. These seed companies are injecting their own resources to promote innovations, such as the AgVerify scheme, fostering the spirit of ownership of quality seed management.

- The production, marketing, and use of climate-smart seed varieties have great potential, but farmers need concrete information on their performance under local conditions. Farmers, even at the smallholder level, are interested in implementing rain water harvesting and irrigation systems in their fields. Further, farmers value training in climate-smart agricultural practices and agricultural extension services, and they are increasingly willing to pay for them.

- It is important to collaborate closely with the government regulatory body. The Activity could obtain documentary evidence that MAAIF delegated authority to the districts to support their regulatory roles in the agricultural inputs industry.

- Expert spray services ensure safety for people and their environment. Greater understanding and utilization of integrated pest management techniques encourage safer and more efficient use of chemicals by applying them in the most effective way possible, calibrating minimum effective dosages and combining them with non-chemical pest management practices.

An SSP wearing proper protection equipment

- Spray services tend to be more profitable in areas with a high concentration of commercial farmers of a particular crop, providing an opportunity for SSP specialization.
- DLGs are formulating ordinances to organize local-level regulatory compliance enforcement activities that empower themselves, freeing themselves from dependency on the ministry.
- Agro-dealers are increasingly demanding enforcement efforts by the regulators so that they can protect their brands and expand their market share.

9.0 RECOMMENDATIONS

While the Activity made significant strides in the agro-inputs sector, there are several remaining challenges in the agro-inputs sector that will need to be addressed by permanent market actors. The Activity recommends the following:

Beans grown through the use of verified seeds

- Continued anti-counterfeit sensitization is still needed.
- Significantly strengthen the sustainability of the e-verification system by improving service delivery to clients to encourage the participation of more agro-input supply companies, which will require greater transparency and collaboration between REN Publishers and their subcontractor, mPedigree.
- Lobby MAAIF to decree e-verification mandatory for all agro-input products to safeguard farmers from exposure to counterfeit agro-inputs.
- Streamline the agro-dealer registration process and empower district production departments to take ownership of the process, which includes receiving payment, issuing applications, inspecting agro-dealer premises, and submitting recommendations to the Agricultural Chemicals Board. Other government ministries and agencies have simplified and online application and payment processes, allowing mobile money payments and bank transfers, which should be viewed as role models.
- Grant AgVerify accreditation to carry out inspections on behalf of the NSCS. As long as this accreditation is not granted by MAAIF, there will be duplication of time and effort. With AgVerify's accreditation, MAAIF would conduct regular audits on AgVerify's work as outlined in the COMESA guidelines, resulting in increased effectiveness and efficiency of the seed certification process.

Locally grown maize

An agro-inputs dealer displays her agro-input products for sale

10. FINANCIAL MANAGEMENT

Although the Activity formally closed on November 17, 2017, there have been administrative costs associated with the closing. As of February 2018, the Activity is fully obligated. It has expended $9,935,473 of the total contract budget of $10,014,377, which represents 99.2% of the contract. There have been no overruns on the contract lines nor on the overall budget, with $78,904 remaining unspent of the total contract.

Table 6: Cumulative Financial Expenditures

Contract Lines	Total Expenditures through January 2018	Total Budget	Percent Expensed
Labor and Fringe	$3,375,411	$3,404,960	99.1%
Other Direct Costs	$2,600,316	$2,632,377	98.8%
Subcontracts	$1,537,500	$1,540,228	99.8%
Indirect Costs	$1,857,206	$1,869,960	99.3%
Fixed Fee	$565,040	$566,852	99.7%
Total	**$9,935,473**	**$10,014,377**	**99.2%**

ANNEX I. FEED THE FUTURE DISTRICTS AND ACTIVITIES

						Anti-counterfeit	e-verification			Seed		Climate	Distribution		
SN	Districts	Feed the Future Target District	Feed the Future Adjacent Markets	Field Staff Base	Radio Stations w/ Listener-Led Program-ming	UNFFE Anti-Counterfeit Training of Trainers & Sensitization	Kakasa Comp, Road Shows & Media Storms	Kakasa Radio Campaign	UNADA Agro-Dealer e-verify Training	Ag Verify Launch	Ag Verify Radio Campaign	Climate Change Demos & CAN Mtg	Supplier-Led Training for Agro-Dealers	Distribution Roundtable	Supplier PDP
1	Bugiri	X							X						X
2	Bukomansimbi		X						X	X		D/S			
3	Bushenyi	X			X	X	X	X	X	X	X	S/C			
4	Busia		X			X									
5	Gulu	X			X	X	X	XX	X	X	XX	S/C	X		X
6	Hoima		X						X				X		
7	Ibanda	X			X	X			X	X		C			
8	Iganga	X		X	X	X	X	X	X	X	X	S/C	X	X	X
9	Isingiro	X				X									
10	Jinja	X			X	X		X	X	X	X		X		
11	Kabale	X			X	X	X	X	X	X	X	D/S/C	X		X
12	Kabarole		X						X						
13	Kampala		X		X			X		X	X			X	
14	Kamuli	X			X	X	X	X	X	X	X	D/C			
15	Kamwenge	X													
16	Kapchorwa	X			X	X	X	X	X		X	S			
17	Kasese	X			X	X	X	X	X	X	X	S/D			
18	Kiboga	X				X			X	X		C			
19	Kiryandongo	X				X			X	X		S	X		
20	Kisoro	X				X									
21	Lira	X		X	X	X	X	X	X		X	S/D/C	X		X
22	Luwero	X				X			X	X		D/C			
23	Lwengo		X						X			D/S/T			
24	Manafwa		X			X						S			
25	Masaka	X		X	X	X	X	X	X	X	X	D/S/T/C			
26	Masindi	X		X	X	X	X	X	X	X	X	S/T	X		
27	Mbale	X		X	X	X	X	X	X	X	X	D/C	X		X
28	Mbarara		X	X	X		X	X	X	X					
29	Mityana		X		X	X	X	X	X	X	X				X
30	Mubende	X		X	X	X	X	X		X	X	D/C			X
31	Oyam	X				X									
32	Rakai	X				X			X	X		D/S/T			
33	Sembabule		X			X			X			T			
34	Sironko	X			X	X			X	X		D	X		
35	Soroti		X		X	X		X	X	X	X		X		
36	Tororo	X			X	X			X	X		D/C	X		X
		25	10	7	20	28	14	19	26	22	17	CAN=13; Seed=14; Demos=9; Training=4	11	2	9

			Finance	SSP			Compliance			Other			
SN	Districts	Feed the Future Target District	Financial Simulation Training	SSP Focal District	Agro-Dealer RU Refresher Training	Responsible Use Training	Compliance Clinic/ Handbook Launch	Ordinances Support	DAO training on Agro-Dealer Registration	Business Network Meetings	Stakeholder Consultation Meetings	Focus Group Discussions	District Closeout Events
1	Bugiri	X				X		X	X				
2	Bukomansimbi				X		X		X				
3	Bushenyi	X	X				X	X	X				X
4	Busia												
5	Gulu	X			X		X		X		X		X
6	Hoima					X	X		X				
7	Ibanda	X					X	X	X				
8	Iganga	X					X			X		X	X
9	Isingiro	X						X	X				
10	Jinja	X				X	XX	X	X		X		
11	Kabale	X	X				X	X	X		X		X
12	Kabarole						X	X	X				
13	Kampala						X					X	
14	Kamuli	X		X	X		X	X		X		X	X
15	Kamwenge	X						X	X				
16	Kapchorwa	X	X	X	X		X	X	X	X	X		X
17	Kasese	X	X	X	X		X	X	X	X	X		X
18	Kiboga	X			X	X	X		X		X		X
19	Kiryandongo	X	X	X	X	X	X		X				X
20	Kisoro	X											
21	Lira	X	X	X	X	X	X	X	X		X	X	X
22	Luwero	X		X	X	X	X		X		X		X
23	Lwengo		X										
24	Manafwa												
25	Masaka	X	X	X	X	X	XX		X	X	X	X	X
26	Masindi	X	X	X	X	X	X		X		X	X	X
27	Mbale	X	X	X	X	X	X	X	X	X	X	X	X
28	Mbarara					X	XX	X				X	
29	Mityana		X			X	X		X				
30	Mubende	X	X	X	X	X	X		X		X	X	X
31	Oyam	X											
32	Rakai	X	X			X	X		X	X			X
33	Sembabule												
34	Sironko	X	X		X		X	X	X	X			
35	Soroti		X				X		X				
36	Tororo	X	X				X			X			
		25	13	10	14	14	27	15	25	9	12	8	16

ANNEX II. LIST OF PARTNERS AND COLLABORATORS

	Name of Organization	Type of Organization	Relationship with the Activity	Seed	SSP	Compliance	Anti-Counterfeit	Climate	Finance	E-Verification	Distribution	Media
1	Accelligent Uganda	Private Sector	Partner			-			1			
2	Ag Results	Development Partner	Collaboration	1			1					
3	Ag Verify	Private Sector	Partner	1			1	1	1			
4	AgriProFocus,	International Development	Collaboration				1					
5	Agriscope	Spray Equipment and Agrochemical Supplier	Partner/ supplier		1							
6	Akorion	Private Sector	Partner	1				1	1			
7	Area Cooperative Enterprises	Farmer Association	Collaboration									
8	Balton	Agro Chemical Company	Collaboration				1		1	1	1	
9	BRAC Seed	Seed Supply Company	Partner	1				1	1	1		
10	Brand ID	Private Company	Partner							1		
11	Buddu FM	Private Sector	Partner	1			1					1
12	Bukomansimbi District Production Office	Local Government	Collaboration			1						
13	Bukoola Chemical Industries	Agro Chemical Company	Partner				1			1	1	
14	Buladde FM	Media House	Partner									1
15	Bunyoro FM	Media House	Partner	1								1
16	Bushenyi District Local government	Local Government	Partner			1	1	1				
	Bushenyi FM	Media House	Collaboration	1			1					1
17	CAII	Seed Supply Company	Partner	1								
18	Caritas MADDO	Civil Society	Collaboration									
19	Catholic church of Rakai	Civil Society	Collaboration									
20	CBS radio Mengo	Media House	Partner	1			1					1
21	CEDO	Seed Supply Company	Partner	1			1	1	1			

	Name of Organization	Type of Organization	Relationship with the Activity	Seed	SSP	Compliance	Anti-Counterfeit	Climate	Finance	E-Verification	Distribution	Media
22	CEMIPHAR	Private Sector	Partner	1								
23	Centenary Bank	Financial Institution	Collaboration						1			
24	Chamber of Commerce	Government Parasternal	Collaboration									
25	CIDI	Civil Society	Collaboration									
26	Commodity Production and Marketing Activity (CPMA)	Feed The Future Activity	Collaboration	1		1	1	1	1		1	
27	Crane Radio	Media House	Partner	1								1
28	CropLife Africa Middle East (CLAME)	Industry Association	Partner		1		1					
29	CropLife Uganda	Industry Association	Partner		1					1		
30	Davis & Shirtliff	Private Sector	Partner					1				
31	Development Network of Indigenous Voluntary Associations (DENIVA)	NGO	Collaboration			-		1				
32	DFCU Bank	Financial Institution	Collaboration						1			
33	District Agricultural/ Production officers (DAOs)	Local Government	Collaboration		1	1	1	1				
34	District Farmers' Associations	Industry Association	Collaboration		1		1	1				
35	District Local Governments (DLGs)	Local Government	Collaboration		1	1	1	1				
36	East African Seeds	Seed Supply Company	Collaboration	1			1					
37	Elgon FM	Media House	Partner									1
38	Equator Seeds	Seed Supply Company	Collaboration	1			1			1		
39	Equity Bank	Financial Institution	Partner			-			1			
40	FACTS Africa	Financial Institution	Partner			-			1			
41	FAO	International Development	Collaboration	1				1				
42	Farm Gain Africa	Private sector	Partner	1			1			1		
43	Fauna &Flora Internation	Private Sector	Collaboration									
44	Feed the Future Producer Organization Activity	Feed The Future Activity	Collaboration		1	1	1	1	1			
45	Feed the Future Uganda Enabling Environment Activity	Feed The Future Activity	Collaboration	1		1	1	1				

	Name of Organization	Type of Organization	Relationship with the Activity	Seed	SSP	Compliance	Anti-Counterfeit	Climate	Finance	E-Verification	Distribution	Media
46	Feed the Future Uganda Youth Leadership in Agriculture	Feed The Future Activity	Collaboration		1		1	1	1			
47	FICA seeds	Seed Supply Company	Partner	1			1		1	1		
48	GIZ	International Development	Collaboration			-		1				
49	GREMADA	Association	Collaboration									
50	Grow More Seeds	Seed Supply Company	Partner	1			1					
51	Gulu Local Government	Local Government	Partner			1	1					
52	Hangzhou Agro Chemicals	Agro Chemical Company	Partner				1					
53	Hanns Neumann Stiftung Foundation	Private Sector	Collaboration									
54	Heart FM Mubende	Media House	Partner	1			1			1		1
55	Hoima District Local government	Local Government	Collaboration									
56	Housing Finance Bank	Financial Institution	Partner			-			1			
57	Hydraulic Sanitation Consult Uganda	Private Sector	Partner			-		1				
58	Ibanda Local government	Local Government	Partner				1					
59	Iganga District Local Government	Local Government	Partner			1						
60	Integrated Seed Sector Development (ISSD)	International Development	Collaboration	1				1				
61	International Fertilizer Development Centre (IFDC)	International Development	Collaboration		1			1				
62	International Food Policy Research Institute (IFPRI)	USAID Contractor	Collaboration				1			1		
63	Jorumat Agro Investments Ltd	Private Sector	Partner									
64	Kabale District Local government	Local Government	Partner			1	1					
65	Kabarole bs FM	Media House	Partner									1
66	Kamuli District Local Government	Local Government	Partner			1						
67	Kapchorwa District Local government	Local Government	Partner			1	1					

	Name of Organization	Type of Organization	Relationship with the Activity	Seed	SSP	Compliance	Anti-Counterfeit	Climate	Finance	E-Verification	Distribution	Media
68	Kapchorwa Trinity Radio	Media House	Partner	1			1			1		1
69	Kasali Coffee Farmers Association-KACFA	Farmer Association	Collaboration									
70	Kasese Guide radio	Media House	Collaboration	1			1			1		1
71	Kasese Local Government	Local Government	Partner			1						
72	Kazinga Channel	Seed Supply Company	Partner	1								
73	Kiboga District Local government	Local Government	Partner			1	1					
74	Kiryandongo District Local government	Local Government	Collaboration			1						
75	Lira Local Government	Local Government	Partner			1	1					
76	Lutheran World Relief	International Development	Collaboration	1				1	1			
77	Luwero District Farmers Association	Farmer Association	Partner				1					
78	Luwero District Local Government	Local Government	Partner		1		1					
79	Mabirizi Godfrey	Private Sector	Collaboration									
80	Makerere University Kampala – School of Agriculture (MUK)	Educational Institution	Collaboration					1				
81	MAMIDECOT	Farmer Association/SACCO	Collaboration						1			
82	Masaka District Farmers Association	Farmer Association	Partner				1					
83	Masaka District Local Government	Local Government	Partner			1	1					
84	Masindi District Farmers Associatio	Farmer Association	Partner				1					
85	Masindi District Local Government	Local Government	Partner		1	1	1					
86	Masindi FM	Media House	Partner	1						1		1
87	Masindi Seeds	Seed Supply Company	Collaboration	1				1	1	1	1	
88	Mbale CAP	Development Partner	Collaboration									
89	Mbale Municipal Council	Local Government	Collaboration									
90	Mbarara Local government	Local Government	Partner									
91	Mbuye farm school	Government Institution	Collaboration									

Name of Organization		Type of Organization	Relationship with the Activity	Seed	SSP	Compliance	Anti-Counterfeit	Climate	Finance	E-Verification	Distribution	Media
92	Mega FM (Gulu)	Media House	Partner	1						1		1
93	Ministry of Agriculture Animal Industry and Fisheries (MAAIF)	Government Ministry	Partner	1	1	1	1	1		1	1	
94	Ministry of Trade, Cooperatives and Industries	Government Ministry	Partner							1		
95	Mirembe	Seed Supply Company	Partner	1								
96	Miseco	Seed Supply Company	Partner	1								
97	Mityana District Local government	Local Government	Partner			1	1					
98	M-Mulimisa	Private Company	Collaboration									
99	M-pedigree	Private Company	Partner	1			1			1		
100	Mubende District Local government	Local Government	Partner		1	1	1					
101	Musana FM	Media House	Partner									1
102	Mutukula FM	Media House	Partner									1
103	National Agricultural Research Organization (NARO)	Government Agency	Collaboration	1				1				
104	NASECO seeds	Seed Supply Company	Partner	1			1	1	1	1	1	
105	NBS (Jinja)	Media House	Partner	1						1		1
106	Nsanga Agro Chemicals	Private Sector	Collaboration									
107	NUTEC/DFID	Development Partner	Collaboration	1				1	1			
108	Oiko Credit	Financial Institution	Partner			-			1			
109	Open gate FM	Media House	Partner	1			1			1		1
110	Opportunity Bank	Financial Institution	Partner			-			1			
111	Osho Chemicals	Private Sector	Partner								1	
112	Otis Garden Seeds	Seed Supply Company	Partner	1			1	1	1	1		
113	Pearl Seeds	Seed Supply Company	Partner	1			1	1	1	1	1	
114	PIN	USAID Project	Collaboration									
115	Pride MDI	Financial Institution	Partner			-			1			
116	Radio Buddu	Media House	Partner	1			1			1		1
117	Radio Kitara	Media House	Partner	1			1			1		1
118	Radio Pacis (Arua)	Media House	Partner							1		1
119	Radio Wa Lira	Media House	Partner	1			1			1		1
120	Radio West	Media House	Partner	1			1			1		1

	Name of Organization	Type of Organization	Relationship with the Activity	Seed	SSP	Compliance	Anti-Counterfeit	Climate	Finance	E-Verification	Distribution	Media
121	Rakai District Farmers Association	Farmer Association	Partner				1					
122	Rakai Womens Community Conservation efforts (Hadija Kasozi)	Farmer Association	Collaboration									
123	Reign Group	Private Sector	Partner									
124	RFM Iganga	Media House	Partner	1								1
125	Rock Mambo	Media House	Partner									
126	Rwenzori FM	Media House	Partner	1								1
127	Sebbo FM Kamuli	Media House	Partner	1						1		1
128	Sembabule District Farmers Association	Farmer Association	Partner									
129	Sembabule District Production Office	Local Government	Collaboration									
130	Simba Seeds	Seed Supply Company	Partner	1								
131	Simlaw Seeds	Seed Supply Company	Partner	1			1			1	1	
132	Sironko District Local government	Local Government	Partner				1	1	1			
133	Smart Business Intelligence Uganda	Private Sector	Partner			-			1			
134	SNV	International Development	Collaboration			-	1	1	1			
135	Solar Now Uganda	Private Sector	Partner					1				
136	Speak FM Gulu	Media House	Partner	1			1					1
137	Ssebo FM Kamuli	Media House	Partner	1								1
138	Ssembeguya Estates	Agro-Equipment Company	Partner									
139	Step FM	Media House	Partner	1				1				1
140	Strengthening Decentralization for Sustainability	USAID Project	Collaboration									
141	Sun FM Mityana	Media House	Partner	1			1					1
142	The Hunger Project	International Development	Collaboration					1				
143	The USAID/Uganda Education and Research to Improve Climate Change Adaptation Activity	Feed The Future Activity	Collaboration					1				
144	Tororo Municipal	Local Government	Collaboration									
145	Tropical FM	Media House	Partner	1								1
146	UAP Insurance	Financial Institution	Partner			-			1			
147	UCDA	Government Parasternal	Collaboration									

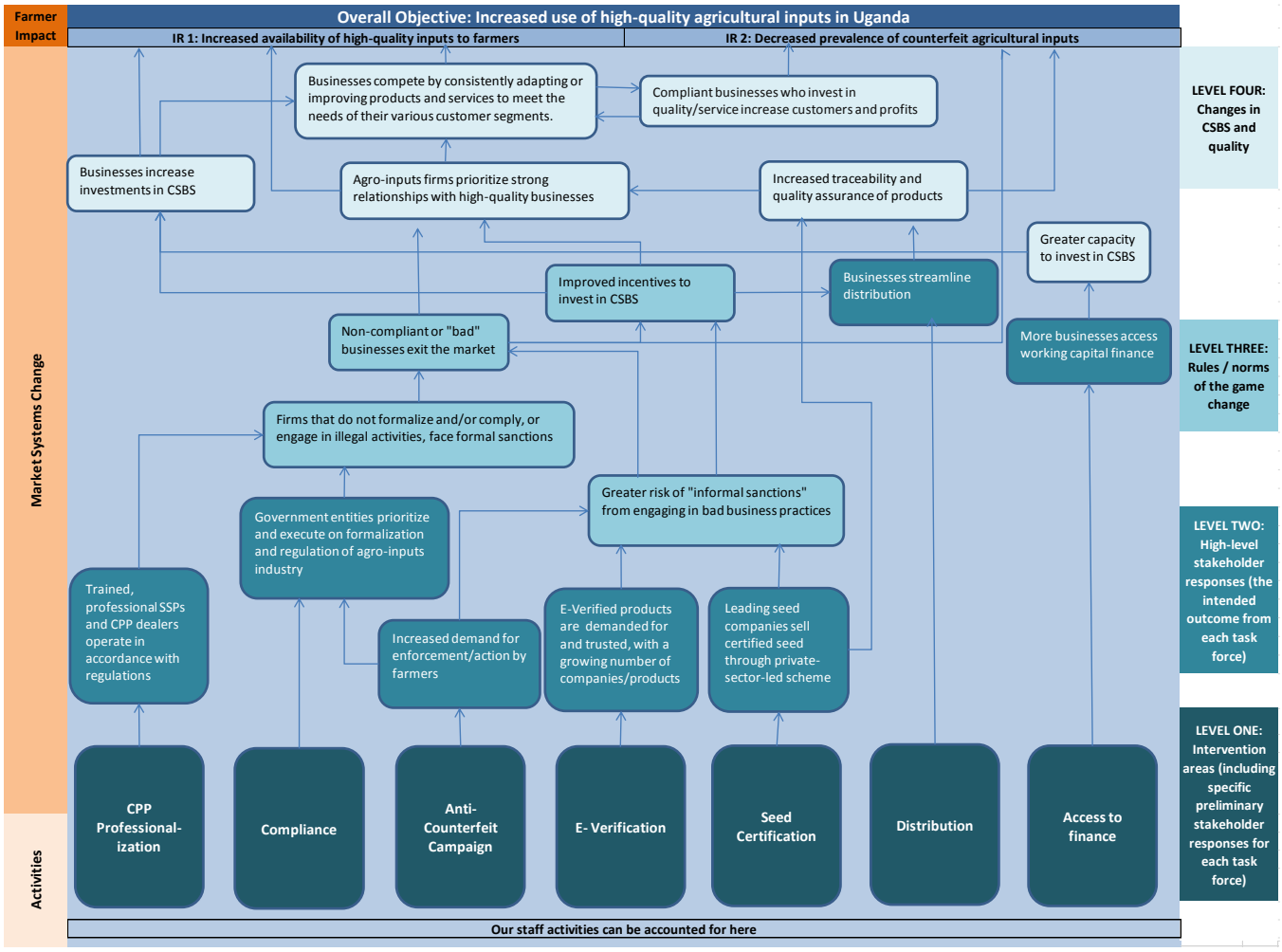
	Name of Organization	Type of Organization	Relationship with the Activity	Seed	SSP	Compliance	Anti-Counterfeit	Climate	Finance	E-Verification	Distribution	Media
148	UGAFODE	Financial Institution	Partner			-			1			
149	Uganda National Agro-input Dealers Association (UNADA)	Industry Association	Partner	1	1		1	1	1	1		
150	Uganda National Bureau of Standards (UNBS)	Government Parasternal	Partner	1		1	1			1		
151	Uganda National Farmers Federation	National Farmer Organization	Partner		1		1	1				
152	Uganda National Meteorlogical Authority	Government Parasternal	Collaboration			-		1				
153	Uganda Registration Services Bureau	Government Parasternal	Partner			1						
154	Uganda Revenue Authority	Government Parasternal	Partner			1						
155	Uganda Seed Trade Association (USTA)	Industry Association	Partner	1			1	1	1			
156	UGOCERT	Private Sector	Partner	1								
157	Venus Data Systems	Private Sector	Partner			-			1			
158	VI Agroforestry	Civil Society	Partner									
159	Victoria Seeds	Seed Supply Company	Partner	1				1	1			
160	Voice of Kigezi	Media house	Partner	1			1			1		1
161	Voice of Teso	Media House	Partner	1			1			1		1
162	Wizarts Media	Media Firm	Partner	1			1					1
163	World Vision - ACCRA	NGO	Collaboration			-		1				

ANNEX III. MEASURING SYSTEMIC CHANGE

Detailing the Causal Logic of Expected Systemic Changes

Using best known estimates of how to measure change in complex systems (and building from the truism that all economic sectors or industries are inherently complex), the Ag Inputs Activity monitors for shifts in the way the ag inputs industry is functioning using a variety of indicators. The Ag Inputs Activity's theory of change describes a series of linked 'steps' that are thought to be necessary to achieve the ultimate goals. Below is a causal chain used by Ag Inputs to describe the logic of how interventions lead to systems change and the Activity's dual high-level goals. Each box is then broken down with specific indicators attached.

FIGURE II-1: ANTICIPATED SYSTEMS CHANGES AND THEIR RELATIONSHIP TO ACTIVITY INTERMEDIATE RESULTS



Each intervention starts with activities undertaken by one of eight 'task forces' (see 'Level One' on the diagram). These interventions engage a variety of actors to change the way the system is operating (Level Two). If successful, these 'stakeholder responses' to Ag Inputs' interventions will bring about changes in how the industry is governed, both formally and informally (Level Three). This is expected to change incentive structures for businesses and bring about investments in quality and service (Level Four).

Sub-intermediate results (Sub-IRs) are pursued in a cross-cutting fashion through activities and market systems change at different levels. Results Framework indicators thus represent a cross-section of changes anticipated at various levels. A brief overview of the expected market systems changes resulting from interventions within each of the eight thematic areas is provided below.

Figure II-1 represents how the Activity conceptualizes the stages of change necessary to achieve intermediate result (IR) 1 and IR 2. Activities conducted by each of the thematic area task forces are expected to elicit an initial 'stakeholder response,' which if effective, translates into improvements in the rules of the game over time. Improvements in the rules of the game then open up strong incentives/pressures for improved quality and CSBS investments, which the Activity also stimulates. The cumulative effect is the achievement of IR 1 and IR 2.

Each level of market system change is tracked through cross-cutting data collection tools, explained below:

1. Stakeholder Response Monitoring: Each of the eight thematic areas is monitored by a customized monitoring and evaluation plan describing the stakeholder responses expected to occur in the short to medium term. These responses occur as a result of activities conducted by Ag Inputs, and they represent the first stages of systemic change, making them akin to "early change indicators." Depending on the nature of each intervention, items tracked could include (but are certainly not limited to):

    - Ownership, involvement, and/or leadership of key actors in the change,
    - Development of memoranda of understanding, joint work plans, or other relevant documents,
    - Key actions on the part of market actors to strengthen regulations or enforcement of rules in the agro-inputs industry.

2. Rules/Norms of the Game: The results tracked under Stakeholder Responses are intended to create changes in the rules and norms of doing business, to which agro-inputs businesses must adjust and/or react. The Activity evaluates what impact initiatives in the eight thematic areas are having on the 'core market'—that is, the agro-inputs distribution chain. Assessment is made up of a mix of measurements, including:

    - Evaluating changing perceptions of agro-inputs businesses toward fairness, effectiveness, and importance of rules and legal compliance;
    - Tracking changes in buying and selling patterns and prices, including profit margins of key products; and
    - Tracking the rate of entry and exit of agro-input businesses from season to season.

    These measures pertain to some of the key problems associated with weak regulations and enforcement in the industry, including the ease of conducting illicit business and the negative impact of counterfeit and sub-standard products on prices, which cuts into margins that could otherwise be re-invested into growing local businesses.

3. Improvements in Quality/CSBS: Here, the Activity looks to see if changes in the rules of the game are positively impacting the quality of agro-inputs, and investment in CSBS. This is based on the idea that a fair,

well-regulated agro-inputs industry will create space for good businesses to grow and succeed when they provide superior benefits to farmers. Measures here include:

- Monitoring rates of change in key business practices from season to season amongst agro-inputs businesses;
- Tracking the number of businesses taking advantage of access to working capital financing; and
- Identifying which suppliers are investing in new and improved distribution models, and how upcountry agro-dealers are responding to these changes.

Where appropriate, some of these changes are tracked using the Activity's *Custom Indicators* in the Results Framework, but additional information is collected outside of the Results Framework in order to provide a constant flow of information on performance. In addition, the Results Framework also tracks:

- Feed the Future indicators: These indicators measure the effectiveness of the Activity in contributing to key Feed the Future performance measures. Targets have been set for these indicators.
- Climate change indicators: These indicators measure changes that contribute to improving adaptation to climate change.
- Seed Sector indicators: After the award of additional financing from USAID for targeted seed sector interventions, three indicators were added to track the volumes of seed produced, and one indicator was added to track number of farmers reached by seed companies using seed demonstrations and other innovative marketing techniques.

ANNEX IV. END-OF-ACTIVITY INTERNAL ASSESSMENT METHODOLOGY

IV-I. PURPOSE AND OBJECTIVES

Purpose of Assessment: The purpose of the report is to document the achievements, the successes, challenges, lessons learnt and best practices for the Activity. Project evaluation is to the project performance for the last five years and provide lessons learnt, best practices and success stories for the Activity implementation period and identify any knowledge gaps.

Specific Objectives:

- Ascertain the extent to which the Activity has achieved its contractual objectives as agreed to with the donor.
- Assess the extent to which the Activity achieved the intended theory of change that is the stakeholder responses, the change in the rules of the game, the use of quality inputs and adapting to CSBS business model.
- Identify the Activity's successes, lessons learned, best practices and knowledge gaps for the next project recommendations.

Conceptual Framework: The Activity's theory of change posits that if sanctions for business noncompliance to existing rules and regulations are costlier to agro-businesses than the cost of compliance, then bad businesses that cannot comply would voluntarily exit the market, thus reducing counterfeits and improving the competitive environment. Therefore, if the market's environment is flourishing under positive competitions, then agro-businesses would have stronger incentives to invest in quality inputs and improved customer service as a means to stand out from the crowd. With these kinds of practices, agro-businesses would thrive and grow and compete based on quality of products and quality of customer service. This would inevitably lead to an increased access to quality products and relevant information on the use and benefits of inputs, which in turn lead to more farmers using agro-inputs.

IV-II. METHODOLOGY

The collection of information utilized different approaches and the assessment utilized different methodologies to achieve the set of objectives. The details of these approaches are describes below:

A. An initial review of primary and secondary data collected over the life of the Activity.

B. An internal staff workshop to develop key themes to capture during the assessment process, including anticipated and unanticipated Activity impacts.

C. Focus group discussions with key stakeholders, farmers and agro-dealers in each region reached by the Activity.

D. A final agro-dealer and supplier survey capturing data from the last agricultural season, with additional "retrospective" questions related to changes in the agricultural inputs sector over the life of the Activity.

E. Key informant interviews were conducted at the end of the project to capture lessons learnt and best practices for future work in the agro-inputs sector.

A. Primary and Secondary Data Review. The Activity has a wealth of primary data over the life of the program. Baseline data was collected in May 2013 from 57 purposely selected businesses (seed and agrochemical companies, wholesalers and retailers) in six selected districts (Kampala, Masaka, Mubende, Gulu, Iganga and Bushenyi). Semi-annual agro-dealer surveys were implemented as part of the Activity's innovative "systemic monitoring and evaluation (M&E)" system, to measure key changes in the agricultural inputs market system over time. Systemic M&E data was later integrated into the overall revised AMELP, and complimented by data from the Activity's routine monitoring system (data collected by field staff and external stakeholders on smart phones using iForm builder, and stored on a Google cloud). Additional data was collected by the International Food and Policy Research Institute as part of a learning contract with USAID/Washington, focused on the e-verification system which was rolled out with Activity support. In addition, stakeholders' meetings were held in 12 districts in August 2016, collecting a wealth of qualitative information and input to inform the Activity's final work plan. All of these sources were consulted by the assessment team to inform the End of Activity assessment process. In addition, secondary data from other external sources including the Market Systems Monitoring Activity implemented by MIT/George Washington University, the World Bank, and previous Tetra Tech programs such as the African and Latin American Resilience to Climate Change (ARCC) program and the Uganda Livelihoods and Enterprises for Agricultural Development (LEAD) Project were reviewed to provide context. Key information from these documents was shared among all assessment team members on a Google Docs site, and used to develop the internal assessment workshop agenda.

B. Internal Assessment Workshop to Capture Successes, Failures, Best Practices and Lessons Learned. Based on the results of the primary and secondary data review, as well as a staff survey to collect initial priorities from the field, a three day end of Activity results review and focus group training workshop was held to identify and discuss Activity successes, failures, best practices and lessons learned. Key questions to be addressed at the workshop included:

- Which activities were successful, for whom, and why?
- Which activities fell short of anticipated results? For whom? Why?
- How might the Activity have been redesigned to increase efficiencies, effectiveness, scope, and beneficiary satisfaction?
- How have activities had a positive effect on women, youth, and other vulnerable/disadvantaged groups?

The workshop agenda included a discussion of Monitoring, Evaluation and Learning (MEL) indicators from the approved Activity Monitoring, Evaluation and Learning Plan (AMELP), including the Activity learning agenda and the achievement (or not) of quantitative targets. It also drew heavily from the experience of field staff (Business Growth Specialists [BGS]) and input from key stakeholders (UNBS; UNADA; USTA; UNFFE; Crop Life; AgVerify partners; Government of Uganda; Ministry of Agriculture, Animal Industry, and Fisheries; and USAID implementing partners). Key stakeholders were interviewed in Kampala by Home Office assessment team members, using a key stakeholder questionnaire developed as part of the desk review.

C. Identify Remaining Knowledge Gaps using Stakeholder, Farmer and Agro-Dealer Focus Group Discussions. During the internal assessment workshop, Activity staff identified critical knowledge gaps that needed to be addressed to better interpret Activity results and findings. Addressing these knowledge gaps helped to contextualize Activity results, and these will be shared with USAID and key stakeholders to inform the design of future activities.

Focus Group Discussions (FGDs) were held in nine districts including Kampala. In each of the eight districts outside of Kampala, Ag Inputs held one farmer, one agro-dealer, and one mixed district stakeholder group for a total of 24 FGDs. The team purposefully selected both high and low performing districts, based on district performance from the desk review and input from BGS. The three FGDs held in Kampala included an agro-dealer group, a district stakeholders group, as well as the sole FGD with agro-input suppliers. These three FGDs, along with the 24 held outside of Kampala, count for a total of 27 FGDs across the country.

Table IV-1: Number of Participants by District and Group Type

District	Farmers	Agro-dealers	Stake-holders	Suppliers
Iganga	18	14	17	
Jinja	16	6	16	
Lira	40	21	9	
Masaka	14	13	16	
Masindi	19	17	13	
Mbarara	16	12	11	
Mbale	14	12	12	
Mubende	32	14	14	
Kampala		16	9	8
Totals	**169**	**125**	**117**	**8**

The specific participants in each FGD were intentionally sought out to include individuals who had engaged in Ag Inputs activities, and would provide a range of perspectives and interest. Since Ag Inputs did not work directly with farmers, the district BGS worked with the district farmer associations to identify farmers. For the agro-dealer groups, BGS reached out to agro-dealers who had previously been engaged with the Activity in order to capture their perspectives on how the market has changed and how Ag Inputs interventions have impacted their work as agro-dealers. The district stakeholders FGD included other key stakeholders including District Agricultural Officers (DAOs), Spray Service Providers (SSP), and media professionals, were brought together for one focus group to capture their views of the impact of the Ag Inputs Activity. While these stakeholders were not directly all directly connected to Ag Inputs implementation, they are key players and permanent actors in the broader institutional framework for the sector and have participated actively in various Activity interventions aimed at improving access and reducing the prevalence of counterfeits. For this reason, it was important to capture their views as objective observers of the Activity's higher level impact. The Kampala district stakeholders group included representatives of Uganda Seed Trade Association (USTA), Uganda National Farmer's Federation (UNFFE), Makerere University Climate Change Centre, CropLife, REN Publishers, and mPedigree. The suppliers group in Kampala invited participants who served as key informants and represent the views of men, women, and youth. The BGS aimed to invite enough individuals for each focus group so that 10-15 would attend. (See Table IV-1 for participant numbers by district.)

Focus groups covered a range of topics relevant to the agriculture sector, particularly Ag Inputs interventions, including the eight task forces, the role of media and communications in the agricultural sector, the impact on disadvantaged groups, and the perception of the effectiveness of the market systems approach instead of the traditional donor approach. Some topics were discussed by two or more focus group types in order to understand the varying perspective of farmers, agro-dealers, and stakeholders.

D. Final 2017 Season A Agro-dealer and Supplier Survey. Following the collection and analysis of information collected during FGDs, and in light of information collected during the desk review and during the assessment workshop, the assessment team revised the data collection tools which have been used as part of the bi-annual agro-dealer survey process, and updated them to include additional data required for the end of Activity final report.

We also combined the agro-dealers who have been routinely interviewed as part of the semi-annual agro-dealer survey with the retailers, suppliers and agro-dealers included in the baseline survey. During the Ag Inputs baseline, 57 firms were surveyed. Twelve leading agrochemical and seed companies were selected based

on their prominence in the market. These twelve firms referred the survey team to three wholesalers in each target district, who in turn referred the team to a total of six retailers in each district.

- ***Data Collection Methods:*** Data was collected by 15 experienced Activity staff (a combination of field staff and senior technical staff, including M&E and communications staff), who have been collecting agro-dealer information for the past four years, and who were trained for three days to revise draft focus group tools and agro-dealer survey tools. Staff were already familiar with Activity objectives and scope, and understood the learning agenda and actors. Qualitative data was collected using flip charts during FGDs, using the Focus Group Guide and tools developed for each focus group (agro-dealers, farmers and district stakeholders). Information was shared daily with the entire assessment team, and each FGD including one supervisor/observer from the assessment team. The assessment team reviewed results each day and discussed challenges and problems encountered to improve the process in an iterative manner. Data collection occurred in two waves – initial FGDs May 22-31, 2017, and the traditional 2017 Season A agro-dealer survey July 17–28, 2017. Agro-dealer data was collected using iFormBuilder, and uploaded daily to the Google cloud.
- ***Data Entry and Analysis:*** Data was synthesized in MS Word (for qualitative data) and Excel (for quantitative data), and analyzed using SPSS Simple descriptive statistics. Frequencies, averages, and means were calculated as final assessment values for key AMELP indicators, following the guidelines and processes described in the Activity's Project Indicator Reference Sheets for each indicator. Qualitative data was summarized by the assessment team to develop themes and key areas for inclusion into the agro-dealer survey, and to address the critical knowledge gaps identified during the staff workshop and FGDs.
- ***Data Dissemination:*** The preliminary results were disseminated in seven district close out workshops (September 1–15, 2017), and the national close out learning event in Kampala (September 19, 2017). Results were shared internationally during workshops and webinars, such as the Making Cents Youth Conference (September 2017), BEAM, SEEP, and Cracking the Nut events; and via AgriLinks. Activity results will be disseminated in this end of Activity final report which will be published on the Development Clearinghouse, as well as other communication materials, in social media, and in oral presentations in meetings and webinars.

E. Key Informant Interviews. The suppliers group in Kampala invited participants who would be able to serve as key informants and represent the views of men, women, and youth.

ANNEX V. END-OF-ACTIVITY INTERNAL ASSESSMENT EXECUTIVE SUMMARY

The Ugandan agricultural inputs system is a vast and evolving network of inputs, technologies, and people. Since counterfeits are a disruptor in this system, Ag Inputs employed thematic areas (compliance, climate change, seed quality, spray services providers, anti-counterfeit, e-verification, distribution, and access to finance) and used a "market systems approach" that would strengthen the system as a whole to attempt to push out counterfeits. In May 2017, the Ag Inputs team held 27 focus group discussions to get feedback on Activity successes and failures. Although progress was revealed, especially in the area of increasing awareness about counterfeits, participants said the sector needs more efforts to mitigate counterfeits and continue strengthening the system. Key takeaways from the discussions are as follows:

- Agro-dealers are able to advertise more today, since it is much cheaper to reach customers than before. There are more avenues for marketing and promotion and more farmers have phones and radios to listen in. Actors in the agro-inputs sector should work together to consolidate their communication strategies, commit to certain platforms and share this plan with farmers and agro-dealers, so that farmers and agro-dealers can know where to check for updated and reliable agricultural information. Additionally, the strategies should include platforms accessible by illiterate individuals and those who have less access to technology.
- There is a strong desire for a compliant marketplace. While strenuous compliance regulations have already begun to crowd out some agro-dealers who are not interested in becoming compliant, compliance levels are still far from what they should be. Sensitization about compliance, streamlining the registration process, raising qualifications, and strengthening and enforcing regulations, laws, and ordinances will all help encourage compliance. The mandatory requirement for agro-dealers to be certified means that agro-dealers will be more educated and prepared for business than before. Increased regulation and enforcement would help to keep unprincipled and uncompliant businesses out of the market.
- While many now know about climate-smart agricultural practices to implement, some farmers are not able to afford the items that must be purchased. Efforts should be made to support low-income farmers to implement climate-smart interventions.
- Due in large part to climate change, input demand is on the rise. With farmers setting aside more money to purchase improved inputs, many farmers reap the benefits of the improved products, while others lose their investment because of the lack of knowledge for proper use or because they unknowingly purchased counterfeits. By far, the most common source for procuring agricultural inputs are agro-dealer retail shops, which means that they need to be equipped to educate farmers on safe use practices.
- Certain districts are well-informed about safe use practices for spraying agrochemicals and applying seeds and fertilizer. However, others continue to put themselves and those around them in harm's way because of unsafe practices. Given the importance of this topic, campaigns should further sensitize farmers in order to provide essential information to farmers for measuring, spraying, and storing agrochemicals, recycling bottles, planting seeds, and applying fertilizer.

- The Activity has been largely successful in increasing awareness of counterfeits, but many farmers are not able to distinguish counterfeit products from genuine ones, and KAKASA is only partially effective at this time. Issues including comprehension of how to use KAKASA, glitches in the technical system, whether or not the tag has already been used, and the increased cost of KAKASA products must be addressed in order to improve the effectiveness and usability of KAKASA. Additionally, many suppliers are still slow to get on board, so when farmers want to find KAKASA products, they cannot be found. So, farmers are challenged to try and find genuine products, especially when some farmers and agro-dealers believe that counterfeit products can come directly from the government or suppliers. E-verification needs further work on the technological side of the platform, and more market research is needed to determine how to persuade more companies participate. The fact that the government (through Operation Wealth Creation) is not incorporating KAKASA products has led to the perception that KAKASA is not important.
- The supply chain and relationships between actors have lost any clear order that existed before. In the interest of trying to reach the final consumer due to concerns of counterfeiting, suppliers are experimenting with various mechanisms to reach farmers more directly. Additional information is needed to better understand the advantages and disadvantages of these various channels. One positive change is that agro-dealers are now work together rather than viewing each other as adversaries.
- While increased demand for inputs has created the potential for profit, the increased market actors have increased competition. Many farmers and agro-dealers still struggle to get the financial support they need from institutions. While some groups said they had access to increased formal financial options, other groups disagreed. Some have even said that institutions immediately lose interest in a loan application when they learn the person is engaged with the agricultural sector. Further research should determine why some groups had gained increased financial options and others did not. Disadvantaged agro-dealers and farmers then need the capital for their businesses.
- Women, youth, and illiterate individuals, and those without access to technology are at a clear disadvantage in the Ugandan agricultural system. Women have less voice, youth have less capital, and illiterate individuals and those without technology have less information. These individuals need more support to ensure that they have equal access.

Overall, staff organized by the eight thematic areas worked well in coordination with each other and should be continued. Ag Inputs has been very successful in advancing the dialogue about counterfeiting and supporting various entities in the agricultural sector to work together to solve problems. Key successes that contributed to these advancements are described in the following text box.

Key Successes of Ag-Inputs
• Work with media professionals on sensitization campaigns have increased awareness of counterfeits, KAKASA knowledge, and climate-smart agriculture practices. • Increased discussion about counterfeiting. • Agro-dealers are interested in a compliant market place, increased requirements for compliance have started to crowd out uncompliant agro-dealers in some areas. Compliance requirements and Ag Inputs business trainings have raised the professionalism of existing agro-dealers. • Farmers are aware of climate change and climate-smart practices. • Farmers are aware of the impact of improved inputs and are interested in purchasing them, even if they can get them for free elsewhere because they may not be genuine. • Training of Spray Service Providers provided employment for youth, as well as safe spraying service provision for farmers who are aware of these services and can afford them. • KAKASA/e-verification has helped to ensure farmers receive genuine products. • Sensitization campaigns and registration clinics increased compliance.

Key Successes of Ag-Inputs
• Improved stakeholder relationships, including among agro-dealers. • Increased demand for improved inputs due to sensitization of their use and benefits. • Agricultural officials have new awareness to perform their roles.

In order to continue progress toward eliminating counterfeiters from the ever changing agricultural market, efforts must be continued and ramped up to address weaknesses. Areas for future focus are presented in the below text box.

Areas for Future Focus
• The registration process should be consolidated since many are deterred by the cumbersome and time consuming process. • Increased compliance enforcement. • Sensitization of low cost climate-smart agriculture techniques. • Greater promotion for SSP and sensitization on safe use practices. • Continued sensitization on how KAKASA works. • Engaging more suppliers to use KAKASA on their full line of products. • Improving KAKASA system functionality. • Supporting agro-dealers and especially farmers to gain increased access to formal financial services, such as loans, to grow their businesses. • Continued inclusion for women, youth, illiterate individuals, and those who have less access to technology. Targeted interventions to help women gain greater influence in decision making; youth more access more capital; and illiterate individuals and those with less access to technology greater access to information.

Building off of Ag Inputs' work, there are several areas, which will require more information to inform next steps, and are as follows:

- Discuss with women, youth, illiterate individuals, and those without access to technology, to understand the disadvantages they face and how they can be better supported so that interventions can be designed with them as a focus;
- Explore how to incentivize all suppliers to use KAKASA on their products;
- Research who has and has not received increased access to finance, and how to better support those individuals increase their access; and
- Investigate the best way to showcase successes in order to spread knowledge and examples about best practices that can be emulated across the sector.

The market systems facilitation approach was not always immediately understood by beneficiaries and partners. However, stakeholders now widely agreed that relationships and collaboration have strengthened, agro-dealers are more knowledgeable about inputs, farmers have greater access to services and inputs, and the sector is gaining capacity to counteract counterfeiting. Communication must continually improve both laterally at the decision making level and vertically between agricultural knowledge holders and the public. The work of the Ag Inputs Activity has created increased awareness on important issues in the sector, and has laid the foundations for important improvements in compliance and anti-counterfeiting in the future. The positive work started by Ag Inputs should be continued and expanded outside the targeted Feed the Future districts, and future projects should continue the focus on building relationships and capacity so that the Ugandan agricultural sector can work together to achieve a sustainable future.

Farmers in Iganga divide up beans to represent where they get their fertilizer.

ANNEX VI. NATIONAL CLOSE-OUT LEARNING EVENT

Tetra Tech Celebrates Achievements at Uganda Learning Event

On September 19, 2017, Tetra Tech celebrated five years of achievements by the Feed the Future Uganda Agricultural Inputs (Ag Inputs) Activity, funded by the United States Agency for International Development (USAID), at the Activity's Close-Out Learning Event held in Kampala, Uganda. The Activity's two main objectives were to increase farmers' use of high-quality agricultural inputs and to decrease the prevalence of counterfeit inputs in Uganda. The Activity worked with businesses in the agricultural inputs supply chain to shift from traditional trading practices toward service-based strategies targeting smallholder farmers. To change farmers' behaviors and attitudes regarding inputs, the Activity used behavior change communication through print media, promotional field days, radio and TV dramas, and music, dance and drama competitions, particularly targeting women and youth. Tetra Tech and the Ag Inputs team used an innovative market systems facilitation approach, leveraging market forces and local partnerships, to change behaviors and to facilitate adoption of new customer-oriented business practices. An important aspect of the market facilitation approach for sustainability was to empower district level governments and build their capacity to regulate agricultural inputs and agro-dealer compliance. The Activity collaborated with 162 public and private partners and 1,291 district-level agro-dealers (34% women and 16% youth) in 25 Feed the Future focus districts and 10 adjacent market hubs, reaching approximately 32% of all districts in Uganda, to improve Ugandan farmers' livelihoods.

Through the Activity's Collaborating, Learning, Adapting (CLA) framework, 135 participants attended the closeout learning event, including officials from USAID, the U.S. Embassy in Uganda, the Government of Uganda, industry associations, private sector partners, other donors, and development partners, to highlight results, review lessons learned, and discuss action plans for sustainability. The U.S. Ambassador in Uganda, H.E. Deborah R. Malac, officially opened the event, remarking that a partnership between the government and the private sector is vital to carrying on and elevating the Activity's impact on the Ugandan agricultural sector.

> *"Overall, this Activity's achievements have sparked systemic changes that promise to have ripple effects across the entire agricultural economy. And it's our hope that these changes will help catapult Uganda's economy to the next level. The investments the U.S. has made through USAID's Feed the Future Uganda Agricultural Inputs Activity and other related activities demonstrate that belief. They are key elements in the development of a broader strategic partnership with the government."*
>
> —U.S. Ambassador in Uganda Deborah R. Malac.

Chief of Party Rita Laker Ojok shared the story of how a mid-term strategic shift, resulting from implementation of Tetra Tech's CLA approach, led to a focus on compliance in the fight against counterfeit inputs and the reorganization of interventions into eight thematic areas, with resulting changes in approach. The thematic areas were access to finance, anti-counterfeit, compliance, climate change, distribution, e-

"As we wait for the counterfeit law, there are already laws in place that mandate MAAIF to manage the agricultural inputs in the country. We have arrested people [for selling counterfeit inputs] and have taken them to court. We have done it in Masaka, Mubendi, Kampala, and other places. Very soon, you are going to see us because plans are in place."
— John Mwanja, MAAIF

verification, professionalization of spray service providers, and seed quality. To hear directly from the Activity's many partners, Tetra Tech organized an interactive learning exhibition, which showcased collaborating partners from each of the thematic areas. Participants were encouraged to rotate among each of the different areas and ask questions.

Next, a panel including representatives from the Ugandan Ministry of Agriculture, Animal Industry, and Fisheries, district level government, an agro-input retailer, a radio station, an industry association, a seed producer, and a plant protection company provided testimonials about their experiences with the Activity. The panelists shared their thoughts on continuing priorities for the agricultural inputs sector, which led to a lively discussion with the audience. Most importantly, the panelists and other stakeholders emphasized their commitment to continuing the fight against counterfeits and quality assurance programs, such as the Activity's e-verification initiative, which provide scratch-off, short message service-based verification of authenticity for plant protection products and seeds, and Ag-Verify initiative.

USAID strongly supported the Activity's market facilitation and sustainability approach, which focused heavily on encouraging local stakeholders like the panelists to take ownership of activities. The Activity's Contracting Officer Representative, Dr. Simon Byabagambi, expressed that these stakeholders possess the willingness and motivation to continue the Activity's work.

"This national closeout truly exemplified all the 100+ players that worked on this Activity. From the opening remarks, the COP's remarks to the MAAIF remarks, all messages proved to USAID that every individual understood what they were doing, what has been achieved and what remains to be done. One of the most successful aspects of this Activity is the sustainability component, and how different stakeholders are willing to take on the achievements and try to pursue the challenges ahead, even with the project's closure. It is now up to the Ugandans on how they want to move forward, and use the good that Tetra Tech has put into place through this Activity."

— Simon Byabagambi, PhD, USAID/Uganda

After five years, Ag Inputs Activity reached more than 47,000 people directly, with additional millions reached indirectly through radio and television campaigns to expand public awareness of the dangers of counterfeit and adulterated inputs, and the benefits of buying verified products. Findings from surveys and focus group discussions with farmers, agro-dealers and input suppliers are that Ugandan farmers are now better prepared to select and utilize quality inputs and to incorporate climate-smart agricultural practices, district-level governments are more empowered to lead industry compliance, and commercial relationships have been strengthened throughout the agricultural inputs supply chain. Important tasks remaining include the full decentralization of agro-dealer registration and the formal accreditation of AgVerify, the private seed certification scheme.

The close-out learning event in Kampala was a heartfelt recognition of the Ag Inputs Activity's impact, which reinforced the U.S. Government's commitment to investments in Uganda's agricultural sector. As HE Ambassador Deborah Malac emphasized in her statement, investments in systemic change in partnership with the Government of Uganda can transform the agricultural sector, leading to greater economic opportunity and improved livelihoods for Ugandan men, women, and youth.

HE Ambassador Deborah R. Malac and Agricultural Inputs Activity Chief of Party Rita Laker Ojok listen attentively to Perez Kawumi of Uganda National Farmer's Federation's briefing on the anti-counterfeit campaign at the National Closeout Learning Event.

Jane Angom, a Climate Change Champion and radio station owner, speaks about the sustainability of activities at the National Closeout Learning Event.

A Solar Now representative speaks about their collaboration with the Activity on climate-smart technology demonstrations at the National Closeout Learning Event.

USAID, the Government of Uganda, and other public and private sector collaborating partners share lessons learned and successes to celebrate the end of the Ag Inputs Activity.

ANNEX VII. SUCCESS STORIES

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FROM THE AMERICAN PEOPLE

SUCCESS STORY

From Shop Attendant to Leading Agro-Dealer

Trainings, exposure visits, coaching and field visits provided learning on customer service strategies.

Photo: Lawrence Adia: Feed the Future Uganda Agricultural Inputs Activity

"My first daughter is soon graduating from university while three younger daughters have graduated from Bukalasa Agricultural School. All these are benefits from my Input Shop. Thanks to customer service strategies"

—Ms. Robinah Nalumu, Agro-Inputs Dealer, Luwero

Ms. Nalumu Robinah is a businesswoman and owner of Nalumu Farm Supply in Luwero district. Ms. Robinah started as a shop attendant for another agro-dealer in Luwero and from her savings as an employee, managed to open her own agro-inputs retail shop. While sharing her story with other stakeholders at the Feed the Future Uganda Agricultural Inputs Activity district closeout meeting, Ms. Robinah said she benefited greatly through various trainings and coaching on business management and other learning opportunities, such as exposure visits to plant protection product, seed and equipment companies, field visits, irrigation demos, agro-dealer fairs and registration clinics; all facilitated through partners by the Activity.

As a result of these learning opportunities, Ms. Robinah has been investing in marketing and promotions strategies, advertising through radio, such as Radio Simba and CBS, and T.V. with Bukedde. Ms. Robinah's efforts led to increased market share and expanded customer base with three new branches. Her business capital base has increased with access to working capital from Letshego. She says that her personal income and livelihood has improved greatly.

Through these economic gains, Ms. Robinah has managed to educate all her children and provide for other dependents. Her first daughter will be graduating from a university, while three girls under her care will graduate from Bukalasa Agricultural School. Ms. Robinah has also used profits from the business to diversify her income into real estate and rental property. Ms. Robinah is now expanding her business territory as far as Masindi and Gulu districts.

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SUCCESS STORY

Kasese District Local Government Promotes Local Ownership

The Kasese District local government promises to sustain activities initiated by Ag-Inputs.

Photo: Brian Ariho: Feed the Future Uganda Agricultural Inputs Activity

Personal Protective Equipment to the youth trainees who later qualified and were certified as SSPs during an onsite training at the Mubuku irrigation scheme in Kasese.

"We promoted Mr. Johnson Sabuni partly because of the work he has been doing in collaboration with the USAID Feed the Future Uganda Agricultural Inputs Activity so that he can sustainably drive the started activities."

Mr. Julius Rukara,
District Agricultural Officer,
Kasese

Kasese District was once known as one of the most successful districts in Uganda, endowed with minerals, such as limestone, copper and cobalt; and good infrastructure with roads, a railway, and an airstrip. Now, Kasese struggles with outdated infrastructure and is often known for its insecurity arising from political and tribal clashes. Despite these struggles, the district has promising agriculture production potential in commodities such as coffee, maize, vegetables, and cotton. This potential is threatened by unfavorable climate challenges, pests, and diseases. The Feed the Future Uganda Agricultural Inputs Activity collaborated with the Kasese district to mobilize its extension officers and expertise to address these challenges.

Since 2015, the District Agricultural Officer (DAO) of Kasese district Mr. Rukara Julius was engaged with the Activity to ensure sustainability of activities. The office embedded some of the Activity interventions into their day-to-day operations and work plans and has even allocated a focal district staff for specific agricultural inputs interventions. These interventions include training farmers on counterfeit agricultural inputs, promoting e-verification tools, and introducing climate-smart agriculture methods. The DAO has adopted a few of their own tools continue the Activity's work, such as the utilization of an agro-input dealer database compiled by the DAO's office for ease of regulation enforcement. Mr. Julius participates in the weekly one hour agricultural audience-led program on Kasese Guide Radio in an effort to regularly sensitize farmers about extension topics.

When the Activity introduced the concept of training unemployed or underemployed youth for professional spray service provision (SSP) in the district March 2016, Agricultural Officer Mr. Mwesige Johnson Sabuni was selected by the district as a focal person for the SSP activities and participated in an SSP trainers' certificate course supported by the Activity. Since then, the Activity and SSPs have collaborated on numerous activities. The SSPs, who are all youth, are directly earning an income from their services. To commend his efforts, the Kasese District Local Government recently promoted Mr. Sabuni from Agricultural Officer to Senior Agricultural Officer.

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SUCCESS STORY

Protecting Farmers Against Counterfeits

Farmers increase demand for e-verified product due to the roll-out of e – verification farmer sensitization.

Photo: Simon Dembe: Feed the Future Uganda Agricultural Inputs Activity

Isaac Bwayo, coordinator for TODIFA, is grateful for the improvements from the e-verification system.

"Due to e-verification, sales have increased and strengthened the process of collective marketing due to increase in yield. Fighting counterfeits through e-verification and anti-counterfeit campaigns has fit well with TODIFA objectives to lobby for, advocate for, and protect farmers. With this initiative, there has been an 30 percent increase in sales."

—Mr. Isaac Byayo, TODIFA Coordinator

The Tororo District Farmers Association (TODIFA) takes great pride in the trust they've built among members because of the e-verification system introduced by the Feed the Future Uganda Agricultural Inputs Activity. "Before the advent of e-verification, it was hard for our farmers to tell the difference between genuine and fake inputs. The common parameters used then were color, packaging, and quantity. With the introduction of e–verification, farmers are now able to tell what inputs are fake by scratching, dialing, and receiving a message on their phone," said Isaac Bwayo, Coordinator for TODIFA.

TODIFA has a total membership of 4,500 farmers, all of whom were exposed to counterfeits and consequently, their efforts in collective marketing were negatively affected. Initially, the hope was that counterfeits could only be fought through exerting all efforts on formulating an ordinance for each county. This process was started but it dragged on for a long time with no results. The e–verification system proved to be a faster means of improvement, is user friendly, and allows for the engagement of different parties. Additionally, the e-verification system improved access to inputs for farmers. Before, the only guarantee farmers could get was to buy products from a TODIFA shop where the association had control. Now they can buy from any agro-dealer shop and verify the products themselves. After rolling out the training on e–verification and identification of counterfeits, farmers can buy from different input shops because they can now verify their seeds, increasing competition and decreasing costs. The Uganda National Farmers Federation trained 30 trainer of trainers from TODIFA in e-verification and anti–counterfeit. They later extended financial support to enable them to conduct trainings in in six sub counties, including Rubongi, Osukuru, Kwapa, Mela, Kisoko and Molo. Mr. Bwayo expressed, "Many farmers confess that it works and it is becoming increasingly hard to convince farmers that not all products are e-tagged."

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SUCCESS STORY

Spray Service Provision Creates Youth Economic Opportunities

Photo: Brian Ariho Feed the Future Uganda Agricultural Inputs Activity

Stephen Kanyesigye receives his knapsack sprayer from the SSP trainer, Mr. Sabuni Johnson, at the SSP in Kasese District.

"I had been spraying fields before but now I offer a wide range of solutions to farmers."

—Mr. Stephen Kanyesigye, Spray Service Provider, Kasese District

Mr. Stephen Kanyesigye is one of the eight active spray service providers (SSPs) trained by CropLife Uganda with support from the Feed the Future Uganda Agricultural Inputs Activity. Before he received help from the Activity, Mr. Kanyesigye was offering casual labor for spraying farmer fields for a small fee. The knapsack spray pumps and all the plant protection products used were bought by the clients. He only needed his own strength to carry the pump to conduct the spraying. However, the fruits of his labor were hardly enough for a meal.

In July 2016, Stephen received training and certification from CropLife Uganda to become a Professional Spray Service Provider (SSP) and offer professional services to farmers in Kasese District based in the Mubuku irrigation scheme. The team of eight youth, including Stephen, were officially recognized by the Mubuku irrigation scheme management and the Kasese District Local Government. Recognition of their training played a key role in recruiting them for the certification. District staff became certified as trainers of SSPs. The Kasese district irrigation scheme and the Kasese DLG committed to periodic monitoring of the SSPs and to offer technical support. Certified SSPs received a nationally recognized identification card, their own knapsack sprayer, and all necessary personal protective equipment. This start-up package cost 50,000 Ugandan shillings to the SSPs, which was cost shared with CropLife Uganda with support from the Activity.

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ANNEX VIII. SUBCONTRACTORS

The Activity subcontracted international organizations for seed sector, agro-dealer, and mid-term strategic assessments; support on systemic monitoring and evaluation (M&E) activities; and conduct a feasibility study and business plan for private seed certification. The Activity utilized regional and local subcontractors for wide-ranging support including for financial simulation training, web platform development, multi-media campaigns and launches, seed sector finance assessments, and conducting safe and responsible use of plant protection products.

Table VIII-1: Subcontractors and Tasks

Subcontractor	Task	Project Year
International		
J.E Austin	• Carry out the Seed Sector Assessment exercise • Conduct the institutional assessment and mapping of the stakeholder environment • Define outcomes and targets, and to develop tools and methodologies to document baseline values and data collection and information management, and integrate these tools in the overall M&E system	Y1
Adam Smith International (ASI)	• Accelerate the Activity's relationships with and implementation of activities with several media outlets. • Develop opportunities with another group of media outlets to invest in consumer protection programming. • Support systemic M&E activities. • Additional assistance to develop audience-led and consumer protection programming, and to design workshops to expose and crowd-in other radio stations to promote these practices.	Y1-3
Engineers Without Borders (EWB)	• Complete assessments of agro-input firms, contributing to the strategic planning of activities, supporting staff in Activity implementation and sharing of lessons learned, developing training modules for agro-input firms in customer service and marketing and promotions.	Y1
Heartland Global	• Develop feasibility study and business plan for private sector seed certification • Conduct CLIIC® training	Y3-5
Le Big Dump LLC	• Perform mid-term strategic assessment review	Y3

Subcontractor	Task	Project Year
Regional/Local		
Agri Experience Ltd.	• Develop Ag Inputs web platform	Y3-5
Lattice Consulting Ltd.	• Provide seed sector financial training	Y3
RACIDS International Ltd.	• Conduct seed sector finance assessment	Y3
Eco-Ventures International	• Provide agro-dealer simulation training	Y3-4
Omnicom	• Execute e-verification launch	Y4
REN Publishers	• Provide technical services as Uganda National Bureau of Standards Call Center	Y4
CropLife	• Conduct refresher training for SSP trainers	Y4-5
Limelight	• Launch e-verification education campaign • Final evaluation of e-verification public education campaign	Y4-5
AgVerify	• Perform grow out and product performance trials for private sector seed certification	Y5
Wizarts Media	• AgVerify launch and public education campaign	Y5
Made in Uganda TV	• Carry out public education campaign on seed	Y4-5
Common Ground Consulting	• Conduct needs assessment for distribution	Y4-5
NASECO	• Promote of drought-tolerant seed varieties	Y5
Bukoola	• Promotion of e-verification	Y5

ANNEX IX. AG INPUTS REPORTS

PROGRESS REPORTS

Annual Reports and Annual Work Plans

Year 1 Annual Report (January – September 2013) and Year 2 Annual Work Plan (October 2013 – September 2014), October 2013

Year 2 Annual Report (October 2013 – September 2014) and Year 3 Annual Work Plan (October 2014 – September 2015), October 2014

Year 3 Annual Report (October 2014 – September 2015), October 2015

Year 4 Annual Work Plan (October 2015 – September 2016), September 2015

Year 5 Annual Work Plan (October 2016 – September 2017), September 2016

Year 4 Annual Report (October 2015 – September 2016), October 2016

Year 5 Annual Report (October 2016 – September 2017), October 2017

Quarterly Reports

Quarterly Report Q2 (Jan - Mar 2013), April 2013

Quarterly Report Q3 (Apr - Jun 2013), August 2013

Quarterly Report Q1 (Oct - Dec 2013), January 2014

Quarterly Report Q2 (Jan - Mar 2014), April 2014

Quarterly Report Q3 (Apr - Jun 2014), July 2014

Quarterly Report Q1 (Oct - Dec 2014), February 2015

Quarterly Report Q2 (Jan - Mar 2015), April 2015

Quarterly Report Q3 (Apr - Jun 2015), July 2015

Quarterly Report Q1 (Oct - Dec 2015), January 2016

Quarterly Report Q2 (Jan - Mar 2016), April 2016

Quarterly Report Q3 (Apr - Jun 2016), July 2016

Quarterly Report Q1 (Oct - Dec 2016), January 2017

Quarterly Report Q2 (Jan - Mar 2017), April 2017

TECHNICAL DOCUMENTS

Baseline Survey Report, 2013

Preliminary Sustainability Plan, February 2013

Environmental Mitigation & Monitoring Plan (EMMP), May 2013

Performance Management Plan (PMP), March 2013

Strategic Assessment, September 2015

Final Sustainability Plan, September 2015

Seed Sector Work Plan, February 2015

Activity Monitoring Evaluation and Learning Plan (AMELP) 2.0, May 2016

Closeout and Demobilization Plan, May 2017