

Uganda Agricultural Market Systems Workshop

Kabira Country Club | March 15-17 2017

Workshop Summary Report



April 2017

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The coordinating committee for the workshop included: USAID/Uganda; the Government of Uganda Ministry of Agriculture, Animal Industry, and Fisheries; the International Institute of Tropical Agriculture; and the UK Department for International Development.

DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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Uganda Agricultural Market Systems Workshop

Workshop Summary Report

In seeking to better understand Uganda's agricultural market systems, working with partners to codesign programs which address bottlenecks, seize opportunities, and achieve systemic change, in support of the Government of Uganda's Second National Development Plan, USAID hosted a three-day workshop March 15-17th, 2017 where 168 participants and presenters explored a market systems approach and developed a pipeline of actionable opportunities and challenges to inform future programming.

From the workshop, USAID and its partners have produced seven actionable outputs that will inform investments and partnership opportunities moving forward:

- I. A revised set of Uganda's Agricultural Market Systems map was created, represented by ten sub systems: agro-processing, financial and business services; Production, Post-Harvest Handling and Storage; Human Resources; Inputs Importing & Manufacturing; Input Distribution; Farmer Practices; Commodity Distribution; Regulatory Environment; and Extension Services (Annex I Uganda's Agricultural market Systems Overview Map).
- 2. Individual participant organizations identified the needed behaviors, ideal relationships and necessary conditions they believed were most important to drive change in the system. This is represented in the Behaviors, Relationships, and Conditions findings found in Annex 2
- 3. Data knowns and unknowns were identified by individual participants to catalogue what is already out there and what still needs to be analyzed and commissioned for research (Annex 3 Data).
- 4. All 168 participants "placed" themselves in Uganda's agricultural market system, through the mapping exercise. This gives all participants a view into what actors are connected to them, both in the room and in the larger market place, what behaviors exhibited by what actors exert an influence on them, and what other actors and parts of the system they influence themselves.
- 5. Having identified areas for intervention and investment through the mapping exercises, a list of participant-identified "Opportunities and Challenges" was created by thematic area (Annex 5 Opportunities and Challenges). Narratives supporting the conversations had around opportunities and challenges in these various thematic areas is also included in Annex 6 Narrative Summaries of Thematic Areas Opportunities and Challenges.
- 6. A participant vote tally on the relative importance of each thematic areas. While not providing data to quantify the actual importance or weight of each area, this tally does provide a useful stock-taking or "temperature check" on how to prioritize investments, at least according to the 168 participants in the workshop (Annex 7 Thematic Areas with Participant Votes).
- 7. A reflection by workshop participants what different kinds of actors need to start and stop doing to drive systemic change. Again, while not providing an analytically rigorous assessment of what actually needs to happen, this exercise provides a useful view into actor's perspectives of other actors that they relate to the system (Annex 8 Start and Stop Exercise).

This summary report is not meant to recapitulate every presentation or minute of the workshop. Instead, it is meant to serve as a reminder of the sessions that we all participated in and to provide some clear outcomes for interested parties. Full workshop materials, including presentations, maps, and agendas can still be found at https://agrilinks.org/events/usaiduganda%E2%80%99s-agricultural-market-systems-workshop

Exploring Market System Connections ¹

USAID/Uganda continues to refine its approach in promoting improved food security and income generation opportunities for Ugandans through market systems development. The current Feed the Future portfolio of activities facilitates new market linkages and promotes private sector development through sustainable, demand-driven interventions. To fully understand the impact of these interventions, and to identify areas for future investment and partnership, USAID/Uganda has taken strides towards

¹ See Annex 1: Uganda's Agricultural Market Systems Overview Map with highlighted changes and Annex 2: Behaviors, Relationships, and Conditions.

creating a definitive mapping of Uganda's agricultural market systems and the relationships and actors that shape them.

The USAID/Uganda Feed the Future Market System Monitoring Activity (MSM) leads USAID/Uganda's efforts to understand the market systems in Uganda. Academics from the Massachusetts Institute of Technology (MIT) and The George Washington University use systems engineering approaches to work with USAID stakeholders to create a map of Uganda's agricultural market system. The team is also working to identify early indicators of change in the market system, along with key behavior changes and conditions that must be met to achieve desired system-level outcomes, such as increased farmer income.

Workshop Day 1

Day I of the workshop focused on understanding the systems mapping approach. Jarrod Goentzel from MIT led the group through an introduction to his team's work, which represents the market system and the forces that drive it as a series of behaviors, relationships, and conditions, see Figure 1.

Workshop participants were encouraged to use this methodology as a framework for understanding their own work, and the behaviors and changes that drive their own desired program outcomes. The participants were then introduced to the latest version of the agricultural market system map, broken down into nine "sub-systems" that represent discrete "pieces" of the larger system. Participants "toured" the maps and worked with facilitators to discuss and make changes to these maps that reflected their own views of Uganda's agricultural landscape.

Relationship between actors

Behavior change by actor

Enabling condition

Enabling condition

Figure 1: Behavior, relationship, and condition map elements

Participants in every station were able to identify interconnections and opportunities. For example, in the Financial and Business Services station, one organization that is building capacity among Village Saving

and Loans Associations (VSLAs) and Savings and Credit Cooperative Organizations (SACCOs) identified a second organization providing credit guarantees for agricultural loans for large banks. Together they identified a potential disconnect between the actors. However, a third organization then highlighted its work to build relationships between banks and VSLAs and SACCOs. In addition, a fourth organization highlighted the role of recent legislation (Tier 4 Microfinance Institutions & Money Lenders Act of 2016) in helping to formalize roles and relationships. These organizations now have new clarity on how their intervention to improve access to finance supports and is supported by others' interventions.

The strong participant engagement in updating the maps and placing their organization is evident in comparing the initial map in Figure 2 below with the updated map in Figure 3 below. Their additions are highlighted in boldface. Two activities prepared participants for engagement with the system maps: listing behaviors, relationships, and conditions that their organization seeks to influence (for details, see Annex 2: Behaviors, Relationships, and Conditions) and practicing use of the map elements with a simple example. Their suggestions not only helped participants engage in the system and with each other but also will help the MSM team develop an improved version of their market system map.

The green ovals in Figure 3 represent organizations.

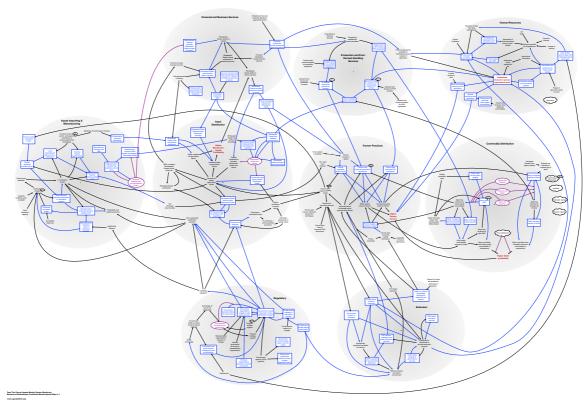


Figure 2: Market system map before AMS Workshop

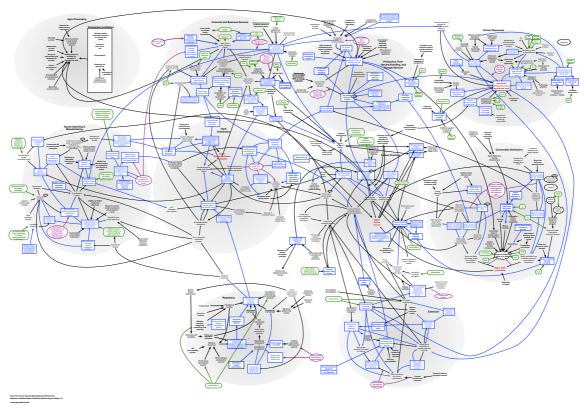


Figure 3: Co-created market system map (additions in boldface)

Developing a Pipeline

Workshop Day 2

Prioritizing Areas of Investment

Based on a poll conducted during workshop registration, participants originally proposed (1) market linkages/facilitation, (2) financial access, and (3) quality inputs as priority investment areas. Developing their ideas during Workshop Day 2, participants broke into nine groups and identified thematic areas in the market system for further investigation. Participants then voted on priority areas, which were then grouped into broader areas of investment. Table 1 shows the rank-ordered list of investment areas according to workshop's participants.

	Day 2 Prioritized Areas of Investment		
1.	Access to financial services	6.	Policy regulation, enforcement, and accountability
2.	Farmer knowledge and skills / Behavior Change Communication	7.	Facilitation of trust and enabling market linkages
3.	Strategies for climate change and resilient markets	8.	Strengthening farmer organizations
4.	Productivity and post-harvest handling	9.	Better data and use
5.	Quality inputs	10.	Infrastructure and water for production

Table 1: Day 2 Prioritized Areas of Investment

Creating Actionable Opportunities and Challenges

Participant groups then further developed these ten thematic areas to create a pipeline of 14 specific opportunities and challenges. They identified actionable opportunities and challenges within each area that could benefit from additional investment support. Participant groups completed detailed templates for each actionable opportunity or challenge², including: a clear opportunity or challenge statement; geographic focus; timeframe; stakeholders relevant to the area; behaviors, relationships, or conditions to address the issue; and past barriers. Annex 4: Opportunities and Challenges and Annex 5: capture for each area the specific details from workshop templates and the small group reports to the larger audience.

Data Availability

Individuals were then asked to work with other members of their organization to describe the existing evidence or data known by and used by their organization and to identify gaps in their evidence base. This information was collected to inform development approaches, and to start to set an analytical agenda for the sector. See Annex 3: Data for the complete list of information collected.

All organizations reported having data collection in their programs but also having insufficient data across the country or sectors. Data harmonization could facilitate the combination of data across organizations and ameliorate data quality issues.

In summary, organizations reported data gaps and issues in the following major areas: demographics, production volumes, data quality, marketing, sales volumes, import and export data, harmonization, financial, standards/certification, and pricing.

Changes Needed

Workshop Day 3

USAID/Uganda Mission Director

USAID, and especially USAID/Uganda, has long championed ideas of collaborating, learning, and adapting to improve development outcomes. Focusing on how to take the collaborative learning of the workshop and move toward substantive adaptation, USAID/Uganda Mission Director Mark Meassick gave participants some recommendations in a speech centered on changes. His first point, that the skills and capabilities that got us to where we are, are not necessarily the same ones needed to get us to where we are going, was directly applicable to USAID and partner work in Uganda's agricultural market systems. Past successes in the market system may not be the approaches required for future success, and we cannot afford to rest on our laurels. Meassick cautioned participants that repetitions of failure encourage change as well. Uganda is currently in a state of significant demographic change and significant attitude changes regarding agriculture and technology. Meassick suggested needed changes for the Ministry of Agriculture's resource channel and needed changes for development partners around collaborating, learning, and adapting, with overall recommended changes including:

- Renewed focus on land market transparency;
- Promoting on-farm labor efficiency;
- Helping ease access to capital;
- Investing in value-added; and
- Improving market responsiveness, analytical skills, and building trust amongst actors.

Finally, Meassick encouraged participants and partners to have the personal and political will to change, and the willingness to see things differently.

² See Annex 5: Opportunities and Challenges for details, Annex 5: , and Annex 6: Voting on Areas for Investment.

MAAIF's Call for Partnership

Closing the Workshop on Day 3, the Minister of Agriculture, Animal Industry and Fisheries, Honorable Vincent Bamulangaki Ssempijja, spoke extensively about the importance of teamwork and partnership. The Minister also spoke of changes, reminding participants that climate, natural resource base, population, power generation, and partnership potential are all changing. He listed some major challenges in the agriculture sector, including:

- low commercialization of farm produce;
- weak links between research and farms who adopt technology;
- the underuse of fertilizer and of irrigation schemes;
- growing land fragmentation;
- low levels of value addition;
- prevalence of a risk-averse financial sector;
- low levels of mechanization;
- poor transportation infrastructure; and
- weak farmer organizations.

The Minister ended his remarks with a call for greater partnership and a request that the outcomes of the workshop are shared so that participants might work together in partnership with the Ministry.

Conclusion and Next Steps

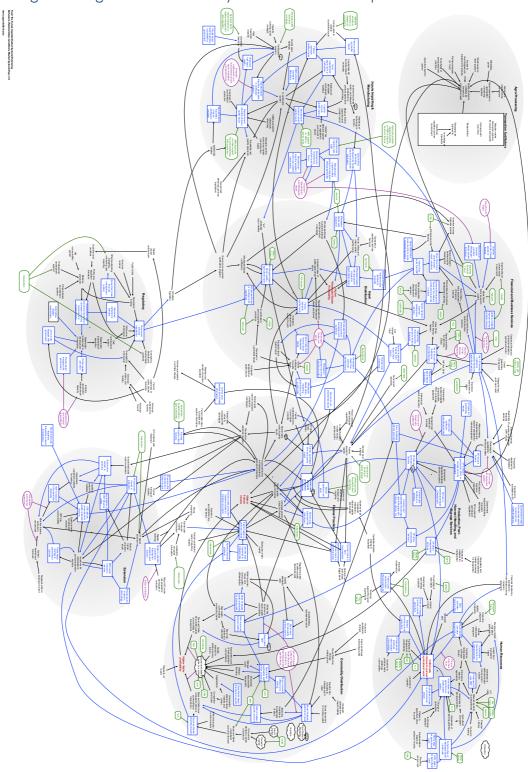
As a result of the workshop participants successfully connected and maintained engagement, shared tacit and explicit knowledge, and developed better understandings of Uganda's agricultural market systems. Through engagement with system maps, numerous connections were made among workshop participants regarding their current and future development efforts in Uganda. Participants were encouraged to maintain connections made at the workshop to continue developing their own collaborative plans for further market system work in Uganda.

The workshop also enabled a co-design process to articulate a new pipeline of ideas that address bottlenecks, seize opportunities, and achieve systemic change. USAID/Uganda will continue to cultivate these co-creation inputs as part of their forthcoming project design work in agriculture market systems. This report offers a pipeline of actionable opportunities and challenges to inform future programming and serves as a foundation for various stakeholders to continue the co-creation process in expanding this pipeline and taking action to improve Uganda's agricultural market systems.

We invite you to explore the rich detail found in the annexes and engage with partners relevant to your work. USAID, for its part, has already started the process of convening partners around the sector, commercialization, and access to finance. If you have not heard from us already, you can expect to hear from us soon. And please reach out to us to tell us about what you are planning and where you see new partnership and investment opportunities.

Annexes

Annex I: Uganda's Agricultural Market Systems Overview Map



Annex 2: Behaviors, Relationships, and Conditions

Participant / Organization	Needed Behaviors	Relationships	Necessary Conditions
Commodity, Production and Marketing Activity	-Repeated transactions between intermediaries -Increased use of agri inputs -Paying for QDP -Farmers producing the required market standards -Farmers change their mindset towards handouts -Farmers demand and use extension services -Farmers use market information -Regular record keeping especially computerized -Using financial institutions for saving & credit products -Compliance with the regulatory framework	-Build trustworthy & transparent relationships between intermediaries -Strengthen linkages between the supply chain -Linkage between intermediaries & district officialslinkage with financial & insurance institutions -Agrodealers buying from trusted suppliers -Customized relationships with financial institutions	-Demand for agri input -Farmer knowledge about extension services -Access to market information -Access to financial support -Demand for quality produce -Farmer knowledge about farming in business -Farmers have knowledge about the agro inputs -Currently there are undefined relationships
Napak DLG participant	-To recruit highly skilled extension staff -Provide quality agriculture inputs -Farmers use proper agronomic practices	-Government & extension staff provide enabling policy for recruitment and staff regulation -Print sector (manufacture) input supplies, agro dealers and the farmers	-Expand agro-input dealers -increased agri practices
KABA participant	The farmers to be trained in peer to peer information sharing Farmers should actively seek out new relationships	Extension workers to help them to give skills to the farmers -GOU -DONORS -USAID/UG/Washington Technical offices(sectors) -Implementing partners	-Impunity -Accountability

African Wildlife Foundation	-Attitudes towards conservation need to change; Conservation is not a threat to agricultureFarmers need to use improved seed	-Relationship with the communities and the national parks -Access to markets and information	-Wildlife conservation improved -High income
AFT participant	-Small scale farmers having capacity in participating in these agriculture system -Young people/youth having a high participation in the private sector -Farmers having capacity to realize a hirable income for the diary living	-Disseminating information for the farmers by the private sector (market information) -Availability of stores for improved inputs especially to the farmers by the private sector -Market availability between the dealers and the farmers	-High demand for quality inputs since the private sector provides quality seeds -Farmers knowledge through information dissemination -Incentive to grow increased quality due to provision of quality inputs
NUCAFE participant	-Use of inputs to increase productivity -Family succession planning -Better post-harvest handling of coffee -Joint decision making at family level -Coffee processing value add	-Households and their farmer organizations -Household/Groups and processors -Strengthen household/Farmer groups with input suppliers -Farmers groups with other actors buyers	-Higher prices for better quality coffee -Farmer knowledge -Regulation and regulation enforcement
Karamoja BLF participant	-Profitable business enterprises established/run by members of KBLF -Increased access to cross boarder TRTC by Karamoja traders	-Karamoja Business leaders forum and individual Business leaders -KBLF engages Turkana chamber of Commerce and Industry	-Business skills developed -Access to market information -Linkages to financial services -Exposure visits help for traders -Trader linkages established -Market information accessed -Regulations in place
FAO	-Market oriented production -Climate smart agriculture -Food security and Nutrition consciousness	-Developing formal relationships with original agreementsLoyalty to agreements -Developing organized alternative linkages	-Price stability -Less fluctuations -Increase CS consciousness -Improved quality of products conforming to buyers demand -Improve nutrition and FS amongst actors
Kakira Sugars Ltd participant	-Produce sugarcane through estate and out grower farmers to manufacture	-Farmers/farmers association -Traders/Transporters	-Improved infrastructure -National sugar policy to be enacted

	sugar and value chain products -Buy sugarcane from the farmers at competitive price -Co-op social responsibility -Assistance to farmers by providing inputs and extension	-KORD-KAKIRA out growers rural Development association -Government -Other millers	-Organized farmer groups-farmer association
YOFCHAN participant	-Young farmers access high quality inputs fertilizers -Empowered youth practicing good agronomic practices -Young farmers accessing better markets for their produce	-Relationship between young farmers and YOFCHAN enables them access high quality inputs -Relationship between YOFCHAN and insurance companies enables young farmers to access insurance services -Relationship between YOFCHAN and buyers enables young farmers to access better	-Young farmer knowledge -increased productivity -Increased use of high quality inputs
DANIDA participant	-Subsistence farming	-Linkage between small holder farmers and large scale buyers/processors	-Collective/group bulking & marketing -Increased production (surplus production) -Good agricultural practices
Water Works participant	-Community togetherness because when a borehole is put up it brings together communication -Behavior is also influenced by working together. People are more motivated to work together a special people on firms	-It has enabled us build relationships with people in rural areas -Better relationship between farmers and suppliers and potential market or consumers	-Conditions that are influenced by our organization are drought, lack of clean accessible water
UNBS	-Input sellers to comply with standards for seeds, fertilizers and pesticides -Manufacture of Bio fertilizers, pesticides to comply with standardsGovernment to emphasize good quality through increased funding of regulatory bodies	-Relationship between MAAIF &UNBS to anvil standards -Relationship between manufactures and UNBS to enable certification -Relationship between UNBS and government to increase funding so that SMEs are everywhere	-Increased funding for UNBS -Increased funding of MAAIF -Make ratifications compulsory so that manufactures are inspected inputs standards
NCBA-CLUSA participant	-Attitude change towards agriculture by the youth I 4-24yrs -Adoption of modern farming techniques including conservation	-Closer relationship between youths and peasants and mentors -Closer relationship between youth and private sector and government	-Increase in loans demand by young farmers -Increase in input demands and output supply markets

	farming -Adoption of co-operative model of farming by youths and farmers	extension & banks -Closer relationship between youths & agriculture inputs & output players and markets	-Closer relationship between young farmers and peasants and mentors -More demand for government extension sources by young people.
FtF Ag inputs Activity	-Suppliers develop PDP networks -Farmers demand improved quality inputs -Seed companies produce quality seed	-Stronger supplier-wholesaler relationships to ensure quality & value for money -Stronger relationship between farmers and agro dealers -Closer relationship between seed companies and quality regulation	-Greater enforcement of regulation /stronger regulatory environment -E-verification to reduce risk of investment -Farmers sensitized on benefits of quality inputs
FICA seeds participant	-Less communicative -Poor rapport with staff -Lack of energy enthusiasm -Low connectivity among staff	-Not cordial -Poor leadership -Lack of inclusiveness -Low on employee engagement	-Feeding isolated -Non-inclusive -Low motivation -Poor controls/systems -Free working environment
Napak participant	-Rewards and sanction -Training of the staff -Oath of secrecy	-Employer -Bonding agreement -Punishment	-Disciplinary action -Promotion -Dismissal/termination of services
WFP participant	-Buying/sourcing -A6 practices Donation behavior —Improve efficiency and integration -Access to finance sector -Dependency -FO aggregation -MP for buyers	-Finance -MAAIF -FO -Farmers -NGOs -DONORS -Traders/ Suppliers -Academia/researchers -Contractors	-Quality incentives -Increase competitiveness -Decrease dependency -Improved nutrition -Improved incomes -Improved market accountability -Improved farming practices
KOICA participant	-Volvo addition (farmer processing produce) -Mindset and attitudes (self-help, diligence &corporation)	-Farmers and agro-processors (strengthen) -Central, Local governments and farmer organizations	-Farmer knowledge and skills(improved) -Increased farmer incomes -Incentive and assurance to cooperate (farmers)

Feed the Future Uganda Youth Leadership for Agriculture Activity	-Youth actively engaged in agriculture -Youth stay in school to acquire knowledge and skills -Private sector influences and invests in skills development -Government facilitates engagement -Private sector buy commodities from youth	-Private sector collaborates with youth (rural) -Private Sector — Youth Peer to peer -IP-Private sector-Youth -Private sector-CA-Youth	-Youth given opportunity to complete school -Priorities influence demand for skills -Government ensures regulations are followed
IFPRI participant	-Impulsive/ideology based policy making to evidence based policy making -Making farmers use modern produce & recommended practices in agriculture -Encourage farmers to become market oriented	-Relation between researchers & government -Relation between government extension and farmers -Relation between private sector & farmers	-Motional agriculture policy -Mat science policy -Body of evidence
Quality Chemicals Ltd	-Trainings (increased use) -Stately stylish distribution centers -Affordability (increase income)	-Increased use of Vet products and technologies -Improvement in knowledge -Increased purchase and distribution -Interaction(accessibility) -Increased use and production brought donation	-Increased number of lives(trainings) -Improved acorn to input distribution -Availability and use increased (affordability)
Feed the Future Uganda Enabling Environment for Agriculture Activity	-Transparency & professionalism -Compliance in regard to standards, procedures, ethics -Improved service delivery e.g. UCDA or MAAIF extension services	-Existence, awareness and enforcement -Regulator and regulated entity	-Constructive dialogue between private &public sectors -Inter/Intra institutional collaboration
UGAFODE participant	-Improved family income -Improved standard of living -Linkage to formal banking -Buying quality input -Best farming practices	-Produce dealers by farmer products -MTN/Airtel agents -Improvement in business transactions -GOU-CSO &CSO interface -Regulation regulated	-Financial literacy and inclusion -Mass enrolment on mobile banking -Sensitization of customers -Constructive and useful dialogue between public & private sector

	T	6011	
	-Transparency and professionalism in	-GOU	-Existence, awareness &enforcement
	policy development	-Private sector	
	-Compliance with registered standard	-CSOs	
	procedures		
	-Improved service delivery		
KABA participant	-Dealers quality agricultural inputs & variety -Organized stock shops established -Demos on input use -Distribution of inputs to stockiest and farmers	-Private complains which stockiest i.e. linkages with Private companies -Linkage with financial institution -Many private firms come together	-Farmers awareness for quality inputs Adaptation to new technologies -Membership registration and subscription
Mercy Corps	-Farmers use improved inputs (corps+ livestock) -Resource allocation/accountability -Improved savings (access to financial services)	-Strengthen relationships between private sector, NARO -Government (agencies) MAAIF, NARO, OPM, MOH -CBs, MFIs(SACCOS) MNOs	-Affordable quality inputs -Informal community level influencing government to design policies -Access to financial literacy, right financial services + products + deliverable channels
Digital Green	-Extension agents show up and do their work -Discuss family budget -Farmer applies practices	-Extension agent-content produce -Extension agent linked to farmers -Husband and wife -Farmer + traders	-Extension agent paid on time/motivated -Have information on market prices
DFID	-Good agriculture practices -Investing more in productivity enhancement -Projects doing fewer give-a-ways	-More formal, rule based relationships between traders, processors etc.	-Rule of law
Upland Rice Millers	-Government to do better strategic planning -Teachers in competition mode -Improve perceptions, productions of quality agri entity	Strengthen government for private sector relationship -Strengthen vertical horizontal relationship -Trust and commitment between buyers and sellers	-Policies in plight places that guide government to plan -Enforce code of conduct in place, associations in place to guide members -Transparency efficient service Proactiveness
Chemiphar	-Suppliers of agro products check the quality of their products -To improve them be able to market them regionally/internationally	-Relationship between suppliers of agro products and buyers -Relationship between manufacturers/processors and GOU	-Through better quality agro products they can have better prices and better access to products

CAFÉ AFRICA	-Private sector acknowledgement understanding public sector constraints -Collaborate /share expenses (private sector competitive space) -Reduced bureaucracy -Improved communication/coordinate to support -Farmers adapting EAPs	-Public private sector stakeholders -In country -internationally	-National coffee platform

Annex 3: Data: What We Have and What We Need Identified by Organization

Name/Organization	What relevant data are currently available	What are the key data gaps
Feed the Future	-Farmer record (profiles)	-Quality of the data (Accuracy)
Uganda Commodity	-Trading records	-Timeliness of the data
Production and	-Financial access (Intermediaries who have accessed	-Harmonization of data
Marketing Activity	finance and values)	-Cost of collecting data
	-Value of inputs purchased by farmers	-Intermediaries appreciating the benefits of collecting data
	-New technology adoption by farmers	-Data collection tools are paper based
	-Partnerships formed	-Build capacity of the data collected
	-Change in incomes	-Harmonized framework for development partner
	-Farmer sales	programs
	-Farmer production data for the crops	Data collected tools transformed to electronic
	-Intermediaries training data	
USAID	-Statistics on demographics, poverty, agriculture,	-Production statistics (quality)
	anthropometry	-Small scale production on seasonal basis-sold vs.
	-Exports, imports	consume(quality)
	-Census, livestock	-Consistent quality data collection
	-Counterfeit prevalence input	-Smallholder farmer preferences, perceptions, decision
		making
		-Soil quality
		-Animal production
Feed the Future	-Details of agro dealers (profiles)	Level of investment by the stakeholders
Uganda Agricultural	-Details of suppliers (profiles,	-Volumes and values of transaction amongst the
Inputs Activity	-Financial institution (loan portfolios, where they operate,	stakeholders/market actors
	etc)	These can be bridged by combining both facility and a bit
	-Season agro dealer surveys	of direct programming to build confidence and justify as to
	-Stock outs	why these actors should avail this data to us
	-Linkages to suppliers and retailers	-Agro dealer profitability-business volume treads
	-Changes in practice	-Volumes of seed produced (we are working on a
	-Level of investment	database process to track this)
	-Stakeholder training and media events	-Impact of input investment on farmer productivity
		-Updated agriculture census
Napak DLG	-Number of farmers they work with	-Few extension stuff-recruiting
	-Number of farmers provided with improved technology	-Inadequate of the inputs technology
	-Number of farmers trained	

UGAFODE	-Family income -Family size and composition -Services of income -Bio-Data -Literacy level -Major market/cities/municipalities -Warehouses/big storages -Producer groups	-Supplier information details -Linkages and association -Crop varieties/input -Information on off takers/market opportunities -Geo referenced data -Market prices -Markets (small, medium, big) -Farm sizes/plots -Standards/policies -Demographics data (DE aggregation)
African Wildlife Foundation	-Chili sales in the Murchison falls National park area -Leading buyers of chili in Northern Uganda	-Countries that import Chili from Uganda -Companies that process and export honey from Uganda -Number of bee keepers in each region in Uganda
Agency for Transformation	-Data on dissemination of farming on farmers' relative information -Data on land policy -Data on Youth livelihood programs	-Information dissemination on district /every district -Land policy, there's need to sensitize the population -Mastering and evaluation on the livelihood programs
Karamoja	-Business leaders register -Business profiles by sector, size and location -Cross boarder business associations -Profile of business skills development training institutions in Uganda	-Prices information across the border for livestock and cereals needs dialogue with Turkana chamber of commerce -Exchange rate for South Sudan found established -Tax requirements to sell to Kenya or South Sudan needs URA to service business county -Certification for live animals across boarders needs decentralization from ministry of District department -Cost of training charged by institutions requires research and negotiations
Food and Agriculture Organization (FAO)	-Macro data on production, area and consumption -Data on prices of the output out the farm gate and market level and an access costs between the farm gate and the market and between the market and the borders.	-Production, sales etcData for some products sold poor -Sources for data prices are not homogenous and often collected through personal consultation with the district gut or the sectorial innovationsData as production costs of the farmers are hard to find and could provide interesting information as the

		profitability of available crops - Data on the cost of transporting inputs from the border to the farm gate.
Kakira	-International sugar production levels and prices -National sugar production levels and prices (440,000) -Sugar consumption levels (400,000 tons) for Uganda -Cane and sugar productivity per unit and time	-Sugar imports not clear -Sugar policy lacking -Monitoring of activities of other sugar industries by Ministry of Trade
	-Sugar cane farmer incomes	-Crop production input(importation)
International Fertilizer Development Corporation (IFDC)	-Data on fertilizer use -Data on high quality input usage -Data on youth involvement in value chains	-Fertilizers are not cost effective for the youth -Inputs are expensive -low involvement of youth in agricultural value chains
Uganda Value Added Maize Alliance	-Number, age, sex and location of farmers benefits -Number, age, sex and location of farmers attending short-term GAP and PHS training -#, age, sex & location of farmers accessing market prices,	Acreage planted by farmer pa -Gross income earned by farmer pa on an acre -Net profit earned by farmer pa on an acre -How much is spent on inputs pa on an acre
	crop challenges and weather information -# producer orgs & enterprises benefiting -Investment by private sector -Storage capacity (MT) increased	-How much external financing/borrowing pa per acre -How much saving pa
DANIDA	-Farmers who are group members in six districts -Marketable (strategic) crops per district (i.e. in 3 west Nile Districts & 3 Acholi districts) -Agro input sources	-Gross margins for various agricultural value chains enterprises -Agri- small and medium enterprises (SMEs) -Market(price) information
Water works	-Number of people (estimate) with clean running water	-Affordability of clean water supply (installation and maintenance) and this can be bridged by governance or NGOs funding such works -Lack of knowledge of the long-term benefits of use of solar water pumping systems. This is a cost friendly project in the long run and ecofriendly. It can be solved by educating people.
Uganda National Bureau of Standards (UNBS)	-List of certified products -List of certified companies -Schedule of product standards available including agricultural products, inputs like fertilizers and seeds	-Certification of all input manufacturers (make ratification mandatory) -Information on ratification is not known by many people -Train people on the importance of having their products certified so that they can export. NB; these trainings are ongoing country wide -Borderline for UNBS in terms of regulating agricultural

National Cooperative	-Baseline report	inputs as MAAIF is the national export point for agriculture but has no capacity to even make standards, something UNBS has been able -Market studies and reports/analysis that can enhance
Business Association CLUSA	-Value chain analysis report -Several assessments -Annual reports /quarterly reports	market accessibility and price for young farmers
Chemiphar (U) Ltd	I have no idea- usually Chemiphar conducts surveys for other organizations that want data Quality of seeds, milk, water etc.	
CAFÉ AFRICA	Not known/ Inconsistent fragmented sector Refer to Martin Fowler for analysis of UCDA reported data over several years	Number of farmers Profiles/ needs Centralized MAC Synchronization activities Coordination/ collaboration
Upland Rice Millers Ltd	UBOS- Production, marketing, players in industries FAO JICA EALC URMC- Database AKORION KILOMO TRUST National Export Promotion Board URA MAAIF MOF	Validation of data- everyone quotes same year but different figures Irrelevant data
Mercy Corps	-Number of farmers trained on improved agronomic skills and technologies -Number of farmers accessing markets (inputs)/ outputs) -# farmers adopt new tech & accessed financial services -Value of loan (Agricultural + Business)	-Lack of demographic info about participants (age, gender, location)- access IPs -Right population statistics (capacity of UNBS)

	-Value of savings -Number of farmers reporting increased productivity and	
	profitability	
DFID	-Price data	-Production patterns + land use
	(Made up) production + yields stats	-Size of sub-sectors + trading volumes
		-Seed quality (fake by seller)
		-Decent evaluations of interventions
		-Household labor/ income by gender
Karamoja Business	-Data on organized marketing association	-Credit lines for farmers
Association KABA	-Prices	-Strategies for agricultural market improvement
	-Challenges/ constraints on marketing	
	-Private companies engaged in agricultural marketing	
UGAFODE	-Income banks	-Supplier information (details)
Microfinance Ltd	-Family size and composition by sex	-Linkages and association
	-Sources of income	-Crop varieties
	-Bio data; Literacy level	-Information on off takers (Market opportunities)
Feed the Future	-Weather data	-Dissemination pathways, utilization and feedback on
Uganda Enabling	-Policies, bills regulations	weather performance
Environment for	-Maize, beans, coffee production levels	-Encourage (put in place feedback mechanism
Agriculture Activity		
Quality Chemicals Ltd	-Livestock population	-Daily expenditure on livestock medicines/ annual
,	Cattle- 12 million	-Average expenditure on medicine for livestock
	Sheep & goats- 13 million	-Average expenditure on feed additives
	Chicken – 50 million	-Literacy level
		-Employment rate
International Food	-Survey data on farmers (UNPS, UNHS)	-Update of UNHS 2005/ 06- with agricultural module
Policy Research	-Production (UCA 2008/9)	-Update on UCA
Institute (IFPRI)	,	-Survey of traders/ middle men especially panel
Korean International	-Number of farmer organizations	-How much farmers can benefit from value addition
Cooperation Agency	-Quantity of rice and maize produced in Uganda and	
(KOICA)	regionally (baseline & end line)	
,	-Trends of other farmers	
	-Profitability of fruits, vegetables and prices	
	-Quantity oranges and mangoes produced in Soroti	
	-Food security	
	-Feasibility studies	
World Food	-Food market prices	-For effectiveness

Programme (WFP)	-Food production levels	-Production per season
	-Commodity trade volumes	-Volumes of graded commodities
Napak District Local	-Trade opportunities between Kenya – border point	
Government	- Tourism data is in place	
Kyengera farms	Weather patterns/ distribution (annual)	Weather patterns (monthly, daily)
	High production areas of different crops	Market prices
		Quantifiable selling methods say in kilograms

Annex 4: Opportunities and Challenges

Area of Investment: Infrastructure and water for production

Area of Investment: Infrastructure and water for production		
PROVIDE A CLEAR STATEMENT OF THE OPPORTUNITY OR CHALLENGE:		
Support the establishment of Ag infrastructure (Roads, water, physical market, energy, farmer training centers)		
WHERE IS THE GEOGRAPHIC FOCUS AREA?	WHEN IS THE RELEVANT TIMEFRAME?	
	0-15yrs	
	0 13/13	
WHO SHOULD BE INVOLVED IN ADDRESSING THE	HOW COULD THE OPPORTUNITY OR CHALLENGE BE	
OPPORTUNITY OR CHALLENGE:	ADDRESSED (BEHAVIORS, RELATIONSHIPS, CONDITIONS)?	
-GOU		
-Donors		
-Private investors		
-communities		
	NAVIDATIDAS DEENLA DADDIED TO ADDDESSINIS TUIS	
WHO WOULD BE A POINT OF CONTACT TO INITIATE ACTION TO ADDRESS THIS OPPORTUNITY OR CHALLENGE / CURRENT	WHAT HAS BEEN A BARRIER TO ADDRESSING THIS OPPORTUNITY OR CHALLENGE IN THE PAST:	
ACTORS:	OFFORTONITT OR CHALLEINGE IN THE FAST.	
ACTORO.	-CFR 216 Funding	
-Min of water	-Nonfunctional Gov't Structures	
-UNRA	-Corruption impunity	
-Environment communities		
-Min of Works		
-Min of Energy		
-NEM		
-UMEME		
-Donors		
-PS		

Area of Investment: Quality inputs I

PROVIDE A CLEAR STATEMENT OF THE OPPORTUNITY OR CHALLENGE:		
Improving quality of EGS		
WHERE IS THE GEOGRAPHIC FOCUS AREA?	WHEN IS THE RELEVANT TIMEFRAME?	
National	Now (3-5yrs)	
WHO SHOULD BE INVOLVED IN ADDRESSING THE OPPORTUNITY OR CHALLENGE:	HOW COULD THE OPPORTUNITY OR CHALLENGE BE ADDRESSED (BEHAVIORS, RELATIONSHIPS, CONDITIONS)?	
-MAAIF	-Independent certification	
-PS	-PVP protections	
-NARO/CEIAR	-Finger printing of varieties	
WHO WOULD BE A POINT OF CONTACT TO INITIATE ACTION	What has been a barrier to addressing this	
TO ADDRESS THIS OPPORTUNITY OR CHALLENGE / CURRENT ACTORS:	OPPORTUNITY OR CHALLENGE IN THE PAST:	
	-Lack of clear varietal descriptions	
-NARO	-No certification process	
-ISSD	-Varieties aren't maintained	
-Seed companies	-Lack of PS participation	
-EGS Consortium	-Weak IP rights	
-USAID FTF AIA		
-CGIAR		

Area of Investment: Quality inputs 2

Area of investment: Quality inputs 2		
PROVIDE A CLEAR STATEMENT OF THE OPPORTUNITY OR CHALLENGE:		
Strengthening seed certification		
WHERE IS THE GEOGRAPHIC FOCUS AREA?	WHEN IS THE RELEVANT TIMEFRAME?	
Nationwide, then at COMESA regional level	Now (3-5yrs)	
WHO SHOULD BE INVOLVED IN ADDRESSING THE	HOW COULD THE OPPORTUNITY OR CHALLENGE BE	
OPPORTUNITY OR CHALLENGE:	ADDRESSED (BEHAVIORS, RELATIONSHIPS, CONDITIONS)?	
PS (Seed companies)	-Verify quality of seeds provided by gov't/dev't partners	
-Ag Verify(accredited)	-Build ministry capacity	
Farmers/civil society	-Lobbying from farmers, CS, PS, DPs	
-UNBS, ETAG	-Strengthening partnership between Ag Verify, PS as accredited players	
-Media/development partners	Transport accessible central database on seed production/cert	
-MAAIF(audits)	-Public education campaign	
WHO WOULD BE A POINT OF CONTACT TO INITIATE ACTION	What has been a barrier to addressing this	
TO ADDRESS THIS OPPORTUNITY OR CHALLENGE / CURRENT	OPPORTUNITY OR CHALLENGE IN THE PAST:	
ACTORS:		
	-Limited Ministry capacity, political will, lack of policy enforcement	
-MAAIF/NSCS	-Enforcement public understanding	
-ISSD(QDS)	-Short term political development agendas/interventions	
-Ag Verify		

Area of Investment: Quality inputs 3

Area of investment: Quality inputs 3		
PROVIDE A CLEAR STATEMENT OF THE OPPORTUNITY OR CHALLENGE:		
Low Fertilizer use/integrated soil fertility mgmt.		
WHERE IS THE GEOGRAPHIC FOCUS AREA?	WHEN IS THE RELEVANT TIMEFRAME?	
National	Now-5-10yrs	
	,	
WHO SHOULD BE INVOLVED IN ADDRESSING THE	HOW COULD THE OPPORTUNITY OR CHALLENGE BE	
OPPORTUNITY OR CHALLENGE:	ADDRESSED (BEHAVIORS, RELATIONSHIPS, CONDITIONS)?	
-PS (marketing/education, repackaging, production)	-Demonstration plots with cost benefit analysis	
-Dev't partners	-include fertilizer in CLUSTER project	
-MAAIF. Extension service	-Public awareness campaign	
-UNBS/ETAG	-Support for blending/repackaging lines	
Cooperatives	-Local fertilizer production	
-Farmer groups/civil society	-promote cost effective soil testing kits	
-Agro dealers	-fertilizer standards regulations	
WHO WOULD BE A POINT OF CONTACT TO INITIATE ACTION TO ADDRESS THIS OPPORTUNITY OR CHALLENGE / CURRENT	WHAT HAS BEEN A BARRIER TO ADDRESSING THIS OPPORTUNITY OR CHALLENGE IN THE PAST:	
ACTORS:	OFFORTOINTT OR CHALLEINGE IN THE FAST.	
ACTORO.	-Limited farmer knowledge	
-PS-Importers, distributors, dealers, Akorion	-Affordability-availability	
-CS (limited)	-Counterfeit products	
MAÀIF	-Lack of soil testing	
Development partners	-Low product quality/storage/packaging/open containers	
-UNBS-PIVOC	-Pro organic propaganda, traditional practices	
-NARO (Soil testing), Makerere	-Lack of Gov't support	

Area of Investment: Quality inputs 4

PROVIDE A CLEAR STATEMENT OF THE OPPORTUNITY OR CHALLENGE:		
Availability/quality/safe use of pesticides		
WHEN IS THE RELEVANT TIMEFRAME? Now-5-7yrs		
HOW COULD THE OPPORTUNITY OR CHALLENGE BE ADDRESSED (BEHAVIORS, RELATIONSHIPS, CONDITIONS)? -Mandatory e verification: Stronger distribution channels -Harmonize approved products with int'l standards, awareness -PS efforts to combat counterfeits -Cost benefit analysis data -Public lobbying & education -Information about proper use & handling -Container mgt campaign -Enforcement of regulations including local consumption -Plant protection product: -Clarify/ change USAID restrictions -Compliance checks -Local regulated repackaging		
WHAT HAS BEEN A BARRIER TO ADDRESSING THIS OPPORTUNITY OR CHALLENGE IN THE PAST: Political will for regulations/enforcement/corruption		
-Counterfeit products -Packaging is too big -Lack of education/information -Poor handling of empty containers -Pro organic propaganda/traditional practices -Lack of knowledge, integrated pest mgt -Lack of professional spray services		

Area of Investment: Strengthening farmer organizations

Area of Investment: Strengthening farmer organizations		
PROVIDE A CLEAR STATEMENT OF THE OPPORTUNITY OR CHALLENGE:		
-Private sector demanding organized farmers to leverage for business; Gov't demands organized farmers for service delivery; Existence of farmer groups/VSLA; Farmer willingness		
WHERE IS THE GEOGRAPHIC FOCUS AREA? -National -Apex -Secondary -Primary	WHEN IS THE RELEVANT TIMEFRAME? -5 years -Yesterday	
WHO SHOULD BE INVOLVED IN ADDRESSING THE OPPORTUNITY OR CHALLENGE: -PS -Government -Farmer members -Umbrella organizations -Development partners	HOW COULD THE OPPORTUNITY OR CHALLENGE BE ADDRESSED (BEHAVIORS, RELATIONSHIPS, CONDITIONS)? -Good governance + leaders + Regulatory framework by Gov't + youth and women involvement + member educationCommercial viability Behaviors -Trust -Member loyalty -Patronage -Capacity to adopt change	
WHO WOULD BE A POINT OF CONTACT TO INITIATE ACTION TO ADDRESS THIS OPPORTUNITY OR CHALLENGE / CURRENT ACTORS: -Umbrella organization (UNFFE, UCA, NUCAFE) -Min of agriculture &Trade -Development partners working with FOs	WHAT HAS BEEN A BARRIER TO ADDRESSING THIS OPPORTUNITY OR CHALLENGE IN THE PAST: -Debate of new formation Vs. existing -Limited Gov't commitment -Political interference -Handouts &unsmarts subsidies	
	-Poor governance -Illiteracy -Limited access to BDs (local) service provider -Poor access to market infrastructure	

Area of Investment: Access to financial services

PROVIDE A CLEAR STATEMENT OF THE OPPORTUNITY OR CHALLENGE:		
Tailor made agricultural financial solutions for market segments- value proposition		
WHERE IS THE GEOGRAPHIC FOCUS AREA?	WHEN IS THE RELEVANT TIMEFRAME?	
Nationwide	-Agriculture finance policy(1-2yrs)	
	-Small holder profiling(Tyr)	
	-Effective farmer associations(Tyr)	
	-Creating awareness about existing agriculture financial solutions(Tyr); -	
	Financial literacy (Tyr)	
	-Adoption of branches banking (Financial inclusion)	
WHO SHOULD BE INVOLVED IN ADDRESSING THE	HOW COULD THE OPPORTUNITY OR CHALLENGE BE	
OPPORTUNITY OR CHALLENGE:	ADDRESSED (BEHAVIORS, RELATIONSHIPS, CONDITIONS)?	
	Agriculture finance policy development and implementation	
-GOU	-Small holder profiling	
-BOU	-Effective farmer associations	
-Donors	-Creating awareness about existing agriculture financial solutions	
-Financial institutions (commercial banks, MFIs, VSLAs, farmer groups)	(Microfinance support centre, DCA guarantees)	
-PS (SMESs, input dealers, farmers)	-Financial literacy (Train banks on ag; train clients)	
-Mobile network operators	-Adoption of branchless banking (financial inclusion)	
	-Develop a cashless ecosystem (farmers pay for educating & health)	
WHO WOULD BE A POINT OF CONTACT TO INITIATE ACTION	-Promote agriculture, finance, savings culture WHAT HAS BEEN A BARRIER TO ADDRESSING THIS	
TO ADDRESS THIS OPPORTUNITY OR CHALLENGE / CURRENT	OPPORTUNITY OR CHALLENGE IN THE PAST:	
ACTORS:	-Attitude-mindset	
ACTOIN.	-Regulation; Competition from other commercial ventures e.g. Gov't	
-Private Sector	borrowing from banks; Cost of funding to financial institutions	
-BOU	-Inappropriate product design	
-Min of finance	- High cost of investment; -Lack of farmer data	
	-High interest rate; high transaction charges	
	-Limited understanding of agriculture sector by financial institutions	
	-Limited accessibility to the finance facilities (due to distance)	
	-Decentralized bio data	

Area of Investment: Actor's knowledge and skills (BCC)

PROVIDE A CLEAR STATEMENT OF THE OPPORTUNITY OR CHALLENGE:		
Inadequate digestible information available to farmers and other actors in the system from a trusted source.		
WHERE IS THE GEOGRAPHIC FOCUS AREA?	WHEN IS THE RELEVANT TIMEFRAME?	
-Whole country	-Timely, season based and preseason (mi, PHH)	
-Regional (continent)	-On demand(farmer)	
	- Routine provision of extension services by stakeholders	
Who should be involved in addressing the	HOW COULD THE OPPORTUNITY OR CHALLENGE BE	
OPPORTUNITY OR CHALLENGE:	ADDRESSED (BEHAVIORS, RELATIONSHIPS, CONDITIONS)?	
All players in the value chain	-PPP, commodity public private partnership platforms	
-Farmers	-ICT use	
-Experts/researchers	-Peer to peer (interpersonal communications)	
-Government	-Participatory development of content	
-Private sector	-Coordinating entity for all IEC materials/content	
	-Practical demonstrations	
	-Government buy in ownership	
WHO WOULD BE A POINT OF CONTACT TO INITIATE ACTION	WHAT HAS BEEN A BARRIER TO ADDRESSING THIS	
TO ADDRESS THIS OPPORTUNITY OR CHALLENGE / CURRENT ACTORS:	OPPORTUNITY OR CHALLENGE IN THE PAST:	
	-Limited number of BCC specialists in agriculture	
-MAAIF	-IEC is expensive	
-Private Sector	-Need for communication under played in the sector	
-Farmer organizations	-Inadequate skill	
	-Farmers can't afford to pay for extension	
	-Lack of understanding of the desired behavioral change	
	-Materials developed from a research perspective not for a farmer	
	-Limited budget to IEC	
	-Lack of skilled functional extension	

Area of Investment: Better data and use

PROVIDE A CLEAR STATEMENT OF THE OPPORTUNITY OR CHALLENGE:		
Improving usability of existing Ag data and completing the data picture		
WHERE IS THE GEOGRAPHIC FOCUS AREA?	WHEN IS THE RELEVANT TIMEFRAME?	
National	-Short term, Web catalog (Tyr)	
WHO SHOULD BE INVOLVED IN ADDRESSING THE OPPORTUNITY OR CHALLENGE:	HOW COULD THE OPPORTUNITY OR CHALLENGE BE ADDRESSED (BEHAVIORS, RELATIONSHIPS, CONDITIONS)?	
-Min of Agriculture -Donors -UBOS -Researchers and Universities -Think tanks -NGOs -PS	-Access to USAID data reported by IPs -Actual farmer behaviors + decision process + demographics profiles -Data on traders, middleman behaviors, where do they buy/sell and get pricing information -What is valid proper usage +interpretation -Pest, disease tracking Coordination, -Next level data analysis explaining the figures reported -Donor Gov't relationship	
WHO WOULD BE A POINT OF CONTACT TO INITIATE ACTION TO ADDRESS THIS OPPORTUNITY OR CHALLENGE / CURRENT ACTORS:	WHAT HAS BEEN A BARRIER TO ADDRESSING THIS OPPORTUNITY OR CHALLENGE IN THE PAST: -Skills	
Donors- should adapt international definitions so that they are working with standardized data	-Equipment -Political alignment/prioritization -Donor understanding -Competing projects interests, directives -Demand for data -Gaps are incentives	

Area of Investment: Policy, regulation, enforcement, and accountability	
PROVIDE A CLEAR STATEMENT OF THE OPPORTUNITY OR CHALL	LENGE:
Creating a culture of constructive action by GOU within the Ag sector through accountability, professionalism, discipline, Proactiveness, responsiveness and patriotism	
WHERE IS THE GEOGRAPHIC FOCUS AREA?	WHEN IS THE RELEVANT TIMEFRAME?
-National -District	3 years
WHO SHOULD BE INVOLVED IN ADDRESSING THE OPPORTUNITY OR CHALLENGE:	HOW COULD THE OPPORTUNITY OR CHALLENGE BE ADDRESSED (BEHAVIORS, RELATIONSHIPS, CONDITIONS)?
-President -Ministers -Donors -CSOs& PS -Parliament	-Identify and engage influences -Advocacy with solutions and data -Support stakeholder forums platforms for sustained engagement
WHO WOULD BE A POINT OF CONTACT TO INITIATE ACTION TO ADDRESS THIS OPPORTUNITY OR CHALLENGE / CURRENT ACTORS:	WHAT HAS BEEN A BARRIER TO ADDRESSING THIS OPPORTUNITY OR CHALLENGE IN THE PAST:
-AGRA -UAA -Non-state actors (CSOs) - MAAIF + MTIC - PS(Partners)	-Lack of accountability -Weak demand for accountability from a disorganized PS -Lack of political will

Area of Investment: Facilitation of trust and enabling market linkages

PROVIDE A CLEAR STATEMENT OF THE OPPORTUNITY OR CHALLENGE:	
Small marketable volumes of poor quality of agricultural products	
WHERE IS THE GEOGRAPHIC FOCUS AREA?	WHEN IS THE RELEVANT TIMEFRAME?
National issue especially in rural areas of Uganda	On-going On-going
WHO SHOULD BE INVOLVED IN ADDRESSING THE OPPORTUNITY OR CHALLENGE:	HOW COULD THE OPPORTUNITY OR CHALLENGE BE ADDRESSED (BEHAVIORS, RELATIONSHIPS, CONDITIONS)?
-PS- collectors, dealers, traders, processors -Farmer groups. UCA, UFFE -Small holder farmers - UNBS- weight scales, regulatory bodies	-Improving volume and quality through trainings, inputs and finance -Invest in collection stores/sites & aggregate outputs(lobby) -Share market information(SMS) -Trade shows
-UCDA, WFP -NGOs, CSOs	-Cooperative farmer groups- business oriented -Create farmer-trader linkages
WHO WOULD BE A POINT OF CONTACT TO INITIATE ACTION TO ADDRESS THIS OPPORTUNITY OR CHALLENGE / CURRENT ACTORS:	WHAT HAS BEEN A BARRIER TO ADDRESSING THIS OPPORTUNITY OR CHALLENGE IN THE PAST:
-WFP -Agro processors groups -Uganda warehouse	-Lack of trust, UVBs -Small holders not organized -Large subsistence farming members 68% -Limited access to credit finance for agriculture
-FTF-IPs	-Deficiency in enforcing legal action between farmers, processors and traders

Area of Investment: Strategies for climate change and resilient markets

PROVIDE A CLEAR STATEMENT OF THE OPPORTUNITY OR CHALLENGE:	
Access to reliable climate, weather information, adaptation, mitigation tools and technology, and sustainability of these interventions	
WHERE IS THE GEOGRAPHIC FOCUS AREA?	WHEN IS THE RELEVANT TIMEFRAME?
-Countrywide (long term) -Hotspots (short term) e.g. dry cattle, corridor and mountainous areas	-Align with GOU CC policy implementation plan (5-10yrs) -Strategic 25+ years
WHO SHOULD BE INVOLVED IN ADDRESSING THE OPPORTUNITY OR CHALLENGE:	HOW COULD THE OPPORTUNITY OR CHALLENGE BE ADDRESSED (BEHAVIORS, RELATIONSHIPS, CONDITIONS)?
-Ministry of water and environment -NARO -MAAIF -UNMA -PS (Not involved yet) -Donors -Stakeholders -Universities	-Profitability -Quality of life -Foster PPP for meteorological services -Enabling environment for PS participation
WHO WOULD BE A POINT OF CONTACT TO INITIATE ACTION TO ADDRESS THIS OPPORTUNITY OR CHALLENGE / CURRENT ACTORS: -University -MAAIF -PS	WHAT HAS BEEN A BARRIER TO ADDRESSING THIS OPPORTUNITY OR CHALLENGE IN THE PAST: -Meteorological data not accessible -Not enough data collection points and stations -GOU policy impedes PS to collect and share data
-Extension	-Affordable technology

Area of Investment: Productivity and post-harvest handling I

Area of Investment: Productivity and post-narvest nandi	U
PROVIDE A CLEAR STATEMENT OF THE OPPORTUNITY OR CHALI	LENGE:
-Productivity of small holder farmers are significantly lower than yield reali -Productivity is lower than what research suggests -Low agriculture output and high post-harvest losses	zed by small holder producers in neighboring countries
WHERE IS THE GEOGRAPHIC FOCUS AREA?	WHEN IS THE RELEVANT TIMEFRAME?
All regions	2018-2022
WHO SHOULD BE INVOLVED IN ADDRESSING THE OPPORTUNITY OR CHALLENGE:	HOW COULD THE OPPORTUNITY OR CHALLENGE BE ADDRESSED (BEHAVIORS, RELATIONSHIPS, CONDITIONS)?
-More farmer into groups for bulk buying -Finance the community agents/village agents to sensitize the farmers -Training village agents as aggregators	-Market accessibility -Market information sent to the farmers (local currency) -Quality inputs (seed, fertilizers, pesticide) -Communication campaigns on PHH
WHO WOULD BE A POINT OF CONTACT TO INITIATE ACTION TO ADDRESS THIS OPPORTUNITY OR CHALLENGE / CURRENT ACTORS:	WHAT HAS BEEN A BARRIER TO ADDRESSING THIS OPPORTUNITY OR CHALLENGE IN THE PAST:
-Farmers -PS -Donors -Government	-Poor agriculture practices -Low quality inputs seed and fertilizer-pesticides -Lack of support services (Extension, finance) -Attitude of producers

Area of Investment: Productivity and post-harvest handling 2

Area of investment. Froductivity and post-narvest nanding 2	
PROVIDE A CLEAR STATEMENT OF THE OPPORTUNITY OR CHALLENGE:	
-Inadequate storage facilities; -Poor PHH practices; -Poor transport system	ns
-Inadequate processing/value addition	
-Lack of knowledge and skills/business; -Inadequate communication (IEC)	materials
-Drastic weather conditions (climate variability); -Limited technologies/inne	
WHERE IS THE GEOGRAPHIC FOCUS AREA?	WHEN IS THE RELEVANT TIMEFRAME?
THE GEOGRA WITHOUT GOOD TAKEN	THE TELETY WITH TELL VIII.
-All regions/all parks	
-National parks	
WHO SHOULD BE INVOLVED IN ADDRESSING THE	HOW COULD THE OPPORTUNITY OR CHALLENGE BE
OPPORTUNITY OR CHALLENGE:	ADDRESSED (BEHAVIORS, RELATIONSHIPS, CONDITIONS)?
OFFORTOINITI OR CHALLEINGE.	ADDRESSED (BEHAVIORS, RELATIONSHIPS, CONDITIONS)!
Community	DDD Darta and in a to build atom a
-Government	-PPP, Partnerships to build storage
-PS	Trainings for skills & knowledge/extensions/VA models
-Farmers	-Access to finance
-Partner	-paying for quality produce to create motivation
WHO WOULD BE A POINT OF CONTACT TO INITIATE ACTION	What has been a barrier to addressing this
TO ADDRESS THIS OPPORTUNITY OR CHALLENGE / CURRENT	OPPORTUNITY OR CHALLENGE IN THE PAST:
	OFFORTONITE OR CHALLLINGL IN THE FAST.
ACTORS:	Lady after a supplied a suit manufacture DLUI
	-Lack of the appropriate equipment (production PHH)
-Inadequate storage	
	-Poor PHH

Annex 5: Narratives on Thematic Areas for Investment

Financial services

Uganda's agricultural market system lacks appropriate financial services value propositions for different market segments, including: small-scale farmers, large-scale farmers, traders, input dealers, processors, and exporters. Most challenges within this theme revolve around appropriate assessment of farmer risk. Financial services institutions typically have poor understandings of farmers. Coupled with little access to farmer collateral, and poor agricultural finance policy, farmers with poor financial literacy pay high rates for agricultural financing. There is an opportunity to improve farmer financial credibility through institutional capacity building, developing tailor-made financial solutions, a working and effective, credible farm bureau, credible farmer data for credit scoring, and effective farmer associations as guarantors. There are further opportunities for electronic-mobile farming eco-systems, utilizing a cashless society, and promoting a savings culture. The geographic opportunity for action is widespread, with different commodities and value chains grown, harvested, or processed in different regions. Solutions should be implemented within one to two years. For example, farmer profiling and implementing effective financial farming associations could take one year, but raising awareness could be done in a shorter time frame. Financial literacy and banking can be implemented in one year as well. The Ministry of Finance, Bank of Uganda, donors, commercial and microfinance institutions, farmer groups, small-medium size enterprises, dealers, farmers, processors, mobile network operators and other providers of digital financial services should all be involved. Because the largest percentage of farmers are small-holders, small-holder profiling and effective farmer associations are critical, along with awareness of financial services options and financial literacy for those farmers. In the past, farmer and financial institution attitudes have been significant barriers. With scarce data and high investment costs, financial institutions are reluctant to pursue small-holder farmers as viable target customers. For farmers, brick and mortar institutions are scarcely accessible and even mobile money incurs high transactional charges. Decentralized bio-data further complicates the challenge.

Engagement with the Government of Uganda

There is an opportunity to create a culture of constructive engagement with the Government of Uganda within the agricultural sector through accountability, professionalism, discipline, pro-activeness, responsiveness, and syncretism. The opportunity is national in scope but relevant at the district level and could be accomplished within three years, given the advantageous timing of the recent entry of the Permanent Secretary who is very interested in changing relationships. The President of Uganda, the Ministry of Agriculture, Animal Industry, and Fisheries, and other ministries, donors, civil society organizations, AGRA, UAA, farmers, and private sector actors should all be involved. The challenge should be addressed through engagement with implementers who can speak directly to government, with stakeholder forums including the private sector and pressure on government to change. Scarce finance and market research at the ministry level, absent government accountability, and absent demand for accountability are significant barriers.

Strengthening farmer organizations

There is an opportunity for farmers to organize as producer organizations with growing demand from the private sector that farmers operate as businesses and further demand from government that organized farmers would ease service delivery. Farmers themselves also seek opportunities to self-organize. These organizations can be structured at the national level, with UVAMA, UNCF, NUCAFE, and other primary and secondary level organizations. Private sector, government, farmer organization members, umbrella organizations, and development partners should all be involved. Current actors include line ministries and development partners. The intervention time frame may span five years. BBS and management support services for finance, markets, ICT, and extension are all needed. Good governance and leadership conditions will be important, including: regulation; youth and women involvement; and member education. Further, farmer organizations must become commercially viable to attract other private sector engagement. Farmer organizations must develop trust, member loyalty, passion, and a capacity for farmers to adapt. Old farmer

organizations may become barriers to new farmer organizations. Other barriers include: political interference, donor handouts and subsidies, poor governance, illiteracy, limited access to BBS, and limited market understanding around farmer organizations.

Strategies for climate change and resilient markets

Access to reliable climate and weather information, and access to climate adaptation tools and technology are general challenges for Uganda's agricultural market system. In the long-term the challenge is countrywide, but in the short-term specific locations could be examined. However, any activity implementation to address the challenges should theoretically be aligned to current Government of Uganda policy and planning which may already have prospective timelines proposed. The absence of climate data collecting point stations and government policy which discourages private sector sharing are significant barriers. An ideal condition to address the challenge would be public-private partnerships for investment.

Facilitating trust and market linkages

The prevalence of poor quality agricultural products is a national issue across Uganda, but it is more pronounced in rural areas. Farmers are inherently involved, but farmer groups, cooperative alliances, collectors, dealers, traders, processors, and government, especially the national standards bureau, World Food Programme, NGOs, and civil society should all be involved. Processors and the Uganda Warehouse Authority are currently working on the issue. Contract farming, like with Mukwano and Nile Breweries, is a proposed solution. Although even these situations would require improved training, input supply financing, and linkages to traders and farmers. Pilots with centralized places for outputs would be useful. Market information through bulk SMS, organized trade shows, and farmer cooperative societies could also help. The lack of legal enforcement and lack of trust for the National Bureau of Standards are serious barriers to facilitating market linkages. Subsistence farming and limited access to credit are other barriers.

Quality, usable data

The lack of awareness for the need for usable data is a challenge facing the agricultural market system in Uganda. In the short-term, there is a need to identify the current state of data available. After that, it would be important to link the process to stakeholders and identify how they can use available data for programming decisions, later identifying data gaps.

Infrastructure and water for production

The lack of agriculture infrastructure, roads, physical markets, energy, physical structures for farmer trainings, is a challenge for Uganda's agricultural market system. Although there is no specific location identified as a geographic focus there is a recognition that any agency or implementer would need to identify a zone of influence in which to implement interventions to address the challenge. At the lower scale, irrigation and alternative energy would be important for farmers, but a long-term investment is also needed. The Government of Uganda, donors, and private investors should all be involved. Collaboration with farmer associations for irrigation structures and government policy coordination would both be needed.

Quality inputs

The first challenge for quality inputs is early generation seed based on foundation seed, with a lack of clear descriptors, no certification process for foundation seed, varieties not properly maintained, and a lack of private sector participation and intellectual property rights. This challenge can be addressed through independent certification of foundation seed, enforcement of intellectual property rights, and periodic interpretation of varieties with data base descriptions. The Ministry of Agriculture would need to work together with the private sector, involving NARO and CG centers. A second challenge, strengthening seed certification, has barriers in limited ministry capacity, lack of political will, lack of enforcement, insufficient public understanding, and short-term political and development agenda handouts. The solution is to lobby for strong enforcement of certification, strengthened public-private partnerships, ministry audit capacity, transparent and accessible databases for production, certification, and inventory, and massive public

education. Seed companies, MAAIF, UNBS, CSOs, and media should all be involved. Two other serious challenges include the use of fertilizer and integrated seed fertility management. These challenges could be addressed through demonstration, post-harvest benefit analysis, fertilizer subsidy, local blending and production, and effective soil testing. E-verification would play a major role in ensuring quality. Further barriers include: lack of political will, corruption, lack of international standard enforcement, counterfeit prevalence, large scale packaging, lack of information, poor handling, poor testing, and organic propaganda. With strengthened distribution channels, the use of approved products per international standards, improved testing, private sector efforts against counterfeits, and public education many of these challenges could be addressed. A much stronger agricultural chemical board with a clear mandate from the government would need to be involved.

Farmer/actor knowledge and skills/BCC

Uganda's agricultural market systems lack available, adequate, digestible information for farmers and other actors, originating from a trusted source. The challenge is nationwide, but each region has specific content needs. To address the challenge any intervention would need to be timely, appropriate, seasonal, perhaps even relevant to specific disease outbreaks. Farmers themselves, agriculturalists, researchers, government, private sector, and other players in the value chain should be involved, and the Ministry of Agriculture, private sector, and farmer organizations are currently involved. The challenge could be addressed through public-private partnerships, ICTUs, peer-to-peer interpersonal communications, and participatory content development, and information coordination would be important. The major barrier for this challenge is that IEC and BCC are both expensive and the need for communications is underplayed. Other barriers are that some IEC materials are developed from a research perspective, and there are scarce versions of materials appropriate for farmers to understand. Further, extension services are not functional in some areas.

Productivity and post-harvest handling

Low productivity from small-holder farmers is a serious challenge in Uganda's agricultural market system. Barriers to addressing the challenge include the current state of poor agricultural practices, poor extension services, low quality inputs, attitudes reluctant toward technology adoption, and poor post-harvest handling. Nationwide, small-holders experience low yield, exacerbated by poor post-harvest handling, but this could likely be addressed through the implementation of a four-year project which aggregates farmers into groups, provides extension services, links with access to finance and village agents, all with Ministry of Finance support. Private sector organizations, local cooperatives, government line ministries and donors would all need be involved for successful design and implementation.

Annex 6: Voting on Areas for Investment

Thematic "Soft Spots"	Votes
Access to financial services	
Tailor made ag financial solutions for market segments	31
Digital Financial Solutions	6
Farmer knowledge and skills/BCC	
 Inadequate digestible info available for farmer/ actors from trusted sources 	34
Strategies for climate change and resilient markets	
Access to reliable climate/ weather info and adaptation/ mitigation tools	18
Productivity and post-harvest handling	
 Low ag output and high post-harvest loss 	
Weak farmer organizations	I
Storage, PH, Transport, Processing and communication	14
Quality inputs	
 Improving quality of early generation seeds 	14
Strengthening seed certification	11
Low fertilizer use/integrated soil fertility management	5
Certification/ regulation of vegetative propagated seeds	2
Other	2
Policy regulation, enforcement and accountability	
Creating a culture of constructive engagement by GOU within the ag sector	27
Facilitation of trust and enabling market linkages	
Small marketable volumes of poor quality agricultural products	22
Other	2
Strengthening farmer organizations	
Organized farmers enable businesses to leverage and government to deliver service	25
• other	
	I
Better data and use	
Improving usability of existing data and completing the data picture	14
Infrastructure and water for production	
Support the establishment of ag infrastructure	3
• Roads	3
Water for production	12
Physical markets	-
• Energy	2
Farmer training centers	-

Annex 7: Start and Stop Exercise (Perspectives)

Donors	
Start	Stop
Fund projects beyond five years (Long Term) New contracting strategy with IPs – How do we spend. Allowing for failure / initiative	Funding projects that don't consider perspectives of beneficiaries Do not give credit where it's not due Stop focusing on numbers but value of impact Tying AID to donor objectives/ self-interests
Continue	
Project sustainability/ exit plan.	
Prioritizing the demographic	
Strengthening partnerships especially with governm	ents

Private Sector	
Start	Stop
Demand government to implement/ enforce policy CSR Strengthen/ start industry partnerships Be professional and ethical Demand for business enabling environment Provide customer support services	Stop competition based on pricing Stop counterfeiting products Stop cheating suppliers
Continue	
PPP should be strengthened Be more innovative in technology Government to regulate the industry associations Offer after sales services	

Implementing organizations	
Start	Stop
Driving the technical conversation Being more intentional/proactive about collaborations with other IPs and other donors Being more intentional about documenting failures, lessons learned and successes Thinking about value for money Using a systems thinking approach in developing activities Promoting MSD	'Just' responding to donor 'good ideas' Thinking of each other as competition Conducting useless baselines and assessments Just focusing on results Supporting the same old 'donor rats' Getting too far ahead of the rest of the actors in implementing MSD, for example Thinking of the government as the problem Assuming the private sector understands everything markets, etc.
Continue	
Engagement with broad group of stakeholders Using a facilitative approach and improving	
Using CLA being adaptive to new ways of doing bus Deeper engagement /understanding of private secto	

Governmen	t of Uganda
Start	Stop

Serious investment in agriculture Politicizing government programs Forming of partnerships Reactionary programming Implementing the laws Fake inputs Recruitment of and empowerment of competent Deforestation OWV involvement in agricultural sector Coordinate support / invest in a sector Corruption Evidence based programming Requirements facilitation Impact measurement Better use of existing money, advocacy for increase Invest in science and tech for quality inputs Planning better based on data Civil service reform

Continue

Development of SMART subsidies e.g. vouchers

Single spine extension

Research

Land reform

Financial inclusion

Transitioning digital access to information/services

Farmers	
Start	Stop
Start forming, formalizing farmer cooperatives	Waiting for donor handouts/ Government
Start using genuine inputs	Side sailing
Soil testing	Raising fake/un certified in puts
Saving in groups with a purpose	Dissemination of women and girls
Practicing integrated pest management	Defaulting on loans
Adaptation to climate change	Selling all produce, buying it at a higher price
Keeping records of productivity	Rudimentary and traditional practices
Seeking information proactively	Stop cheating in quantity to traders
Partnering with traders for market assurance	Stop selling poor quality produce
Alternative commodities or livestock options	Child labor
More education	Growing only for subsistence
Use technology and machinery	Poverty mentality

Continue

Seeking information and learning

Adding value to produce for higher incomes

Practicing GAPS and technology

Embracing change/BCC

Growing in the agricultural development agriculture as a business

Formation of farmer organizations

Saving and looking for financial options

Keeping records

Embracing new improved technologies and invest

Advocacy for increment in resources and support