

ISSD Uganda



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Evidence of policy change in Uganda

Joining efforts towards pluralistic seed sector development

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"Agriculture is the backbone of this country. We cannot watch as farmers' efforts are being frustrated by dishonest seed traders. We are going to arrest whoever is found selling fake seeds. We are going to do this with the help of farmers," said **Honorable Mr Ssempijja, Minister of State for Agriculture in the Daily Monitor, 14 May 2015.**

Since 2012, the Ugandan seed sector has undergone several changes. The major change has been in the shift from a narrow focus on the 'seed industry' towards a more pluralistic view of 'seed sector' development; acknowledging that there are different seed systems in the country that can function alongside each other. The introduction of Quality Declared Seed (QDS) as an official seed class for farmers producing and marketing quality seed is one of the more visible outcomes. Al-

though the contribution of the formal seed system to farmers' seed use is still low, and counterfeit seed is still rampant, change is happening. Several stakeholders - such as the Ministry of Agriculture Animal Industries and Fisheries (MAAIF), National Agricultural Research Organisations (NARO), Development Partners, seed companies and farmer organisations - have played a key role in creating change at national level, either collectively or individually. Therefore the changes described in this brief are not attributable solely to the Integrated Seed Sector Development (ISSD) initiative. Several game changers, such as upcoming Local Seed Businesses (LSBs) producing quality seed, and three differently funded projects working closely together, show that combining efforts and investments in smaller initiatives contribute to addressing seed sector wide bottlenecks, such as quality assurance and access to foundation seed. Since seed is a key ingredient in increasing agricultural productivity in Uganda, more collaborative efforts will increase farmer confidence in quality seed.

The 2012 seed sector at a glance

In 2012, seed sector stakeholders perceived the sector merely as seed companies providing seed to farmers in Uganda. Nonetheless, these international and national seed companies only served a small market segment; mainly exotic vegetables, hybrid maize and sunflower seed. The only other important seed sector actors were the National Seed Certification Services (NSCS) of MAAIF for regulation and quality assurance services, and the national agricultural research institutes (NARIs) as sole providers of foundation seed for food crops. The term used to describe the sector at that time was 'seed industry'. Twenty-three seed companies were active in Uganda, predominantly engaged in selling hybrid maize seed to farmers. Seed companies also responded to bulk orders from institutional buyers such as the government and NGOs. The seed industry served only 13% of the planted area in the country, so farmers used informal seed systems to fulfil the other 87% of their seed needs (ISSD Uganda, 2014).

James Joughin (2014; p7) describes the status of the seed sector in 2012/13 as: *"Quality seed is the foundation stone of agricultural growth and therefore, in Uganda, of broader economic growth. However, despite the apparent awareness of this and despite substantial donor assistance over many years, only 10-15 percent of farmers use improved seed and many of the seed companies find it difficult to turn a profit. The fundamental question is why, after so much effort and support, is the seed industry still struggling? ... Significantly, the relief seed industry that dominated and distorted the formal seed trade during the Northern Uganda conflict has withered away, leaving room for a sustainable, market-driven seed industry to develop."*

Indeed, most efforts of the ministry, research, seed companies and development partners focused on strengthening the seed industry. This is also evident in the government's agricultural Development Strategy Investment Plan (DSIP 2011-2015). Yet the strategic plan only addresses strengthening public and private formal seed systems.

The seed industry developed through institutional support regulating how businesses should operate. But policy documents did not address farmers' diversified seed needs. As a result, only the maize seed system was well developed. Hybrid maize is a typical crop that does well for the seed industry, represented by seed companies, because farmers are required to buy hybrid seed every season, unlike varieties that pollinate naturally.

James Joughin highlights why the seed industry has been struggling up until now: (1) uncertain profits throughout the value chain (rain-fed agriculture/unpredictable yields, cost and availability of complementary inputs, formal market segment based on uncertain relief aid market, high costs of seed business start-up, timeliness of seed delivery, high level of counterfeiting); (2) weak institutions; (3) erratic policies; (4) a weak parliamentary process; and (5) poor donor coordination.

At the same time, NARO and NGOs supported communities to set up their own seed multiplication activities and seed banks, most with full donor funding. These interventions focused on informal seed systems characterised by recycled self-pollinated varieties. Seed is taken from the previous harvest (home-saved and bartered with neighbours), bought at the local market or acquired through seed multiplication schemes under donor-financed projects. These schemes fo-

cused on multiplying quality seed without the marketing component, and are based on revolving funds, whereby a farmer receives input seed and returns a proportion of seed after harvesting, normally twice or three times the amount of seed received as input. Seed quality was often established by the seed grower's reputation as no formal quality control took place.

Seed sector policy changes by 2015

As the relief aid industry and thus free seed distribution declined, most seed companies decided to invest in direct buyer-seller relationships between farmers and seed stockists. Examples of such investments by seed companies are smaller packs, demonstrations and agro-dealer trainings. Several seed companies also started investing in public-private partnerships, e.g. Pearl Seed and Makarere

University/Tegmeo/Wageningen UR; NASECO-ISSD, Victoria Seed and DAI. Bulk sales continued to government programmes and across borders – for example relief aid in the Democratic Republic of Congo and South Sudan, with several reported cases of poor quality seed supplied. Statistics on seed volumes sold by seed companies are not available, MAAIF is not keeping records of these statistics.

Seed sector actors now realise the 'seed industry' only serves 13% of planted area and farmers have extra seed needs. This is evident in the draft National Seed Policy 2014 and the draft National Seed Strategy 2015. Both papers define interventions needed in the formal and informal seed systems. This realisation also provided scope for developing local seed businesses (LSBs) and introducing a new seed class in Uganda: QDS.

Table 1: Overview of annual seed need and volumes of seed sold in 2014 by seed companies and LSBs

Crop	Estimated annual seed use	Seed companies		Informal system		LSB seed sold in 2014	Formal system (seed companies + LSB)	LSB as % of formal system	LSB as % total seed use
	MT	MT	%	MT	%	MT	MT	%	%
Maize OP	17,655	6,000	34	11,655	66	0	6000	0	0.00
Maize hybrid	8,000	8,000	100	0	0	0	8000	0	0.00
Beans	90,368	4,000	4	86,368	96	155	4155	4	0.17
Cassava	2,115,148	0	0	2,115,148	100	504	504	100	0.02
Groundnuts	36,234	500	1	35,734	99	8	508	2	0.02
Sorghum OP	7,128	900	13	6,228	87	51	951	5	0.72
Sesame	2,856	50	2	2,806	98	33	83	40	1.15
Millet	1,595	200	13	1,395	87	11	211	5	0.69
Soybeans	9,348	300	3	9,048	97	7	307	2	0.08
Rice	8,064	2,000	25	6,064	75	31	2031	2	0.39
Cowpeas	854	5	1	849	99	0	5	0	0.00

OP = Open pollinated varieties

In 2014, 26 LSBs sold 800 MT QDS, including 504 MT of cassava cuttings and 155 MT of bean seed. Table 1 shows the contribution of seed companies and LSB produced seed, as part of total annual seed use for maize and some LSB produced crops. It should be noted that reliable statistics are hard to obtain; the estimated annual seed use by farmers is based on FAO statistics. These statistics cover 30 LSBs producing seed in 3 out of 9 agro-ecological zones in Uganda. Although LSB contribution is small, the National Seed Strategy envisions that in 2020, 25% of formal seed sold will be QDS. Estimated annual seed use is established by looking at the areas planted with a particular crop. The informal

system covers whatever quantities that are not provided by seed companies. Since LSBs are new, the volume of LSB seed and seed companies together provides the volume of seed produced under the formal seed system.

Although public governance of the seed sector is still weak, several 'intermediate' changes have occurred which show that development is taking place in the seed sector. Table 2 highlights some of the major changes that have occurred during 2012 – 2015. Changes described are not attributed to ISSD alone; several seed sector stakeholders contributed to this change. Some efforts were independent from each other and others were collaborative actions.

Table 2: Overview of major changes in seed policy and seed sector governance

Status 2012	
Seed sector description	<ul style="list-style-type: none"> The sector was generally referred to as 'seed industry' focusing on Ugandan seed companies and the agro-dealer network.
Seed sector governance	<ul style="list-style-type: none"> Department of Crop Protection.
Seed policy	<ul style="list-style-type: none"> Draft recognising informal and formal seed systems; yet strategies focus on seed companies.
Recognised seed producers and seed classes	<ul style="list-style-type: none"> Seed companies producing certified seed. In case of scarcity, standard seed (grain with minimum germination standards).
Early generation seed (EGS)	<ul style="list-style-type: none"> Only breeders produce EGS (breeder seed and foundation seed) for public varieties, exclusive right contracts with seed companies for particular crops, Seed companies obtain materials from outside Uganda.

The process behind the changes

Changes in seed policy occurred through stakeholder collaboration at local, zonal and national level. Sam Kaner’s ‘diamond of participation’ (ISSD course material, 2013) in Figure 1 explains the processes underlying seed sector changes. The figure shows that development is not a straightforward process. Multi-stakeholder partnerships (MSP) go through different phases before building consensus and innovation.



Status 2015	Implication of the change
<ul style="list-style-type: none"> • The sector is now generally referred to as the seed sector or sub-sector (of the agricultural sector). 	<ul style="list-style-type: none"> • This opens up possibilities to look at the seed sector from a systemic approach, including dimensions of institutions, farmers, value chains, politics, and economy.
<ul style="list-style-type: none"> • Department of Crop Protection is split. • Seed sector governance is under Department of Crop Inspection and Certification. • Agricultural police department set up to curb counterfeit inputs. • Decentralised seed inspections by District Agricultural Officers (DAOs). 	<ul style="list-style-type: none"> • The new department has a stronger mandate to address seed issues. However, without appropriate policies approved, the seed sector governance remains draft. • Decentralisation strengthens NSCS quality assurance system.
<ul style="list-style-type: none"> • Draft recognises a pluralistic seed sector; strategies formulated for both formal and informal seed systems. • District level ordinances provide tools to curb counterfeit in districts. 	<ul style="list-style-type: none"> • The strategies help focus on the different seed systems and, as such, allows for different angles to support the seed sector. • It opens opportunities for investment in informal seed systems for orphaned crops. • Local level ordinances fill a gap where national legislation fails to address counterfeits. It also allows local government action to address needs of farmers.
<ul style="list-style-type: none"> • Seed companies producing certified seed. • Farmer groups producing QDS. • In addition to 2012 status, ZARDI and LSBs producing foundation seed for non-hybrid food crops. 	<ul style="list-style-type: none"> • Provides opportunity for sales of quality seed of orphaned crops and non-commercial food crops as QDS provides a more economic model of seed production for these crops. • Promotes use of quality seed to farmers. • Brings foundation seed closer to farming communities; potentially higher adoption of new varieties as they are closer to the farmers.

Box 1: Partnering for change

If you want to tackle real world issues and achieve real change, you will need to work together with a range of different people and organisations with different backgrounds. This is what we mean by a 'multi-stakeholder partnership' (MSP). While different actors may share a common problem or aspiration, they also have different 'stakes' or interests. Across the world, people are creating new coalitions, alliances, and partnerships, and many inspirational examples are emerging of what can be achieved when people mobilise to take action together. But just agreeing to work together is no guarantee of success. The way these partnerships are set up, the process taken, the capacity for leadership and the skills of facilitation will have a strong impact on how they develop and how successful they are. Enabling people to work

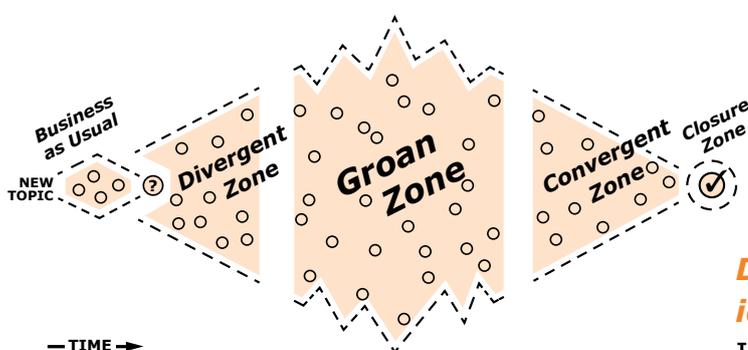
well together, especially if they start with very different views of the world or are in conflict, is never easy. The collaborative and learning-oriented approach of MSPs is certainly not a silver bullet for every difficult situation we face. Yet, it is often surprising just how much progress can be made when you focus on the human aspects that help people cooperate, rather than remaining locked in conflict.

A stakeholder is someone who can affect, or is affected by, the decisions about an issue that concerns him or her.

MSP process refers to the journey the stakeholders take together to achieve this change. There is no simple recipe or blueprint; rather it is an iterative process that goes through different phases.

Source: MSP Guide.

Figure 1: Diamond of participation



Business as usual

When ISSD started in 2012, seed sector stakeholders had discussed bottlenecks many times over. Identified general solutions included: "The seed sector needs a semi-autonomous national seed inspection service to fight counterfeit seed and regulate the seed industry"; "The seed sector needs to know seed demand" and; "Seed companies and other seed producers need to order foundation seed at least one season in ad-

vance". Every meeting discussed the same issues without finding real solutions. This is called "business as usual" in Figure 1 and the starting point for some of the interventions under the ISSD Uganda programme.

Divergent zone: generating new ideas and solutions

ISSD organised several stakeholder and bilateral (i.e. with only one stakeholder) meetings with ISSD and individual stakeholders. This was to further discuss bottlenecks and potential solutions. Participants in one of the first meetings developed a joint seed sector vision. The participants defined that in 5 to 10 years:

- quality seed will be available and easily accessible by farmers;
- efficient and decentralised seed quality assurance mechanisms will be in place

and allow for self-regulation within the private sector. A semi-autonomous body for implementing regulations and Acts will be functional;

- public and private breeding is allowed and varieties are registered in an autonomous variety release register;
- relevant seed policies and regulations created and implemented; and
- seed stakeholders work together to link supply and demand of seed - promoting strong seed value chains.

In addition, participants discussed key constraints that hampered achieving the vision. These included: weak seed sector governance; insufficient seed sector regulatory framework; prevalence of counterfeit seed; and scarcity of foundation seed for food crops (except maize). These bottlenecks were further sub-divided through joint development of mind-maps. Figure 2 shows the mind map for seed sector governance.

Several stakeholder meetings generated new ideas and solutions to address bottlenecks. The process included breaking down key bottlenecks into smaller sub-bottlenecks. This helped reduce ideas deemed unachiev-

able into smaller issues to address independently from each other.

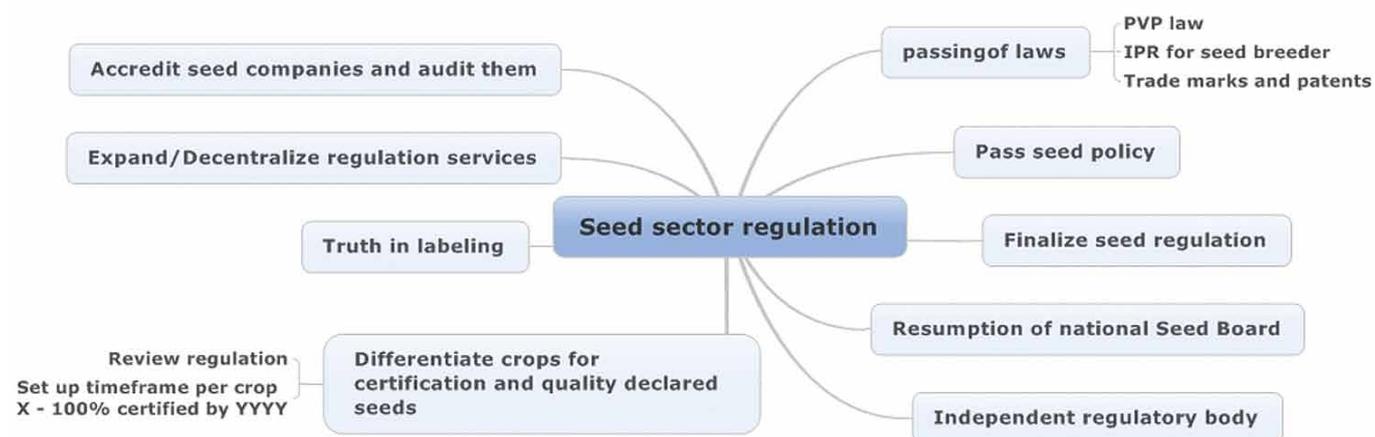
Stakeholder interactions highlighted that if each stakeholder attributes the cause of the problem to other actors, nothing will change. In Uganda, examples of such fixed positions were:

- “seed companies are counterfeiting seed” vs “unscrupulous business men and agro-dealers are faking seed”;
- “breeders have to produce good quantities of foundation seed” vs “seed companies and others need to book foundation seed at least two seasons in advance”;
- “seed companies are the cause of fake seed” vs “the government is not regulating the sector and that is the cause of fake seed”.

Groan zone

Fundamental problems identified in the ‘divergent zone’ are further negotiated in the ‘groan zone’. Problems identified included fixed positions, participants not understanding each other, and wishing to maintain the status quo. Professional facilitation and using the right tools in meetings provides a safe space for discussion. As a result, new ideas and approaches emerge, converging

Figure 2. Overview of main requirements for efficient seed sector regulation



PVP = plant variety protection, IPR = intellectual property rights

common/joint thinking towards solutions in the realm of existing and new information. Table 3 provides an overview of engaging different stakeholders in addressing seed sector governance and regulation in the past two years (2014-2015). Table 4 provides an overview of engaging different stakeholders in addressing counterfeit seed on the market.

Game changers identified

As several initiatives occurred at the same time, and change is an interplay between people and perceptions, it is impossible to describe a linear process of change and thus identify subsequent steps in creating change. However, it is possible to identify and describe game changers that facilitat-

Table 3: Key interventions towards effective seed sector governance and regulation, and initiators of the process.

Key bottleneck sector governance and regulation	Interventions	Initiator/owner(s)
1 Approve seed policy	From July to November 2014, MAAIF in collaboration with EEA-ISSD-PASIC organised a thorough stakeholder review of the draft seed policy and produced an updated version.	MAAIF, USTA, SC, NARO, development partners
2 Pass relevant laws	PVP law enacted	MAAIF, parliament
3 Finalise seed regulations	In Jan – March 2015 review of seed regulations, COMESA harmonisation process has hampered finalisation of regulations	MAAIF, USTA, SC, COMESA, development partners
4 Resumption of the national seed board (NSB)	NSB resumed and met two times, then not much happened. Meetings were funded by development partners	MAAIF & NSB members
5 Accredite seed companies	A protocol is being designed for e-verification	SC, UNBS, USAID-AgInput supported
6 Expand/decentralise regulation services	Pilot ongoing for QDS under ISSD	MAAIF, DLOG, ISSD
7 Differentiate between certified seed crops and QDS crops (review regulation)	QDS regulations are developed differentiating crops and producers	NARO, MAAIF, ISSD, Cassava project
8 Independent regulatory body	No government support for body	MAAIF, Parliament
9 Seed sector coordination	Existing forum SC-MAAIF ongoing. Several initiatives taken to start seed sector platform but none sustained. Proper coordination is not taking place due to self-interest of sector players.	MAAIF USTA SC Development partners – not coordinated

* SC = seed company; COMESA = Common Market for East and Southern Africa; USTA = Uganda Seed Trade Association; UNBS = Uganda National Bureau of Standards; DLOG = District Local Government.

Table 4: Key interventions towards effective reduction in counterfeit seed, and initiators of the process.

Key bottleneck: counterfeit seed	Interventions	Key initiator/owner(s)
1 Unmet demand for seed/ inadequate seed quantities produced	Attempt to document national seed demand	ISSD
2 Strengthen state capacity (e.g. strict penalties)	Review of relevant regulations Agricultural police unit formed	MAAIF, Cabinet
3 Need for autonomous body	No government support	-
4 USTA/UNADA code of conduct	Internal discussions	USTA
5 ISO certification – seed companies	Individual seed companies	Not sure
6 Consultancy to evaluate economic losses	Deloitte study	Bill & Melinda Gates Foundation
7 Study on extent of fake seed	IFPRI study (part of e-verification)	USAID
8 Promotion of tamperproof label	Up and running pilot for QDS certified seed in place; limited number of NSCS inspectors hamper full implementation Not yet for early generation seed	NSCS USTA ISSD
9 Supporting companies to get equipment for security features on seed packs.	E-verification using scratch coin labels on genuine seed packages	Seed companies, USAID AgInput activity

ed the policy changes. The following ‘game changers’ contributed to policy change towards a pluralistic seed sector:

1 Successful LSBs producing quality seed in an environment with rampant counterfeit and fake seed. ISSD galvanised Ugandans outcry about the high level of counterfeit seed to prove that farmers are able to organise, produce and market their own quality seed. This evidence-based work caught the attention of policymakers and created space in seed policy for both local seed businesses and QDS seed.

2 Joining forces with agriculture projects. Three projects are collaborating

for greater national impact. The projects are Policy Action for Sustainable Intensification of Cropping System (PASIC) and ISSD, both funded by the Embassy of Kingdom of the Netherlands; and Feed the Future Enabling Environment for Agricultural Activity (EEA), funded by USAID. This partnership proved its effectiveness in the review process of the national seed policy that was under the auspices of MAAIF. The partnership was able to pull in resources and expertise for content and process facilitation. The partnership also represented the formal and informal seed system view. After completion of the National Policy review and validation process, MAAIF asked the team to further support the ministry in national seed strategy development.

This involved providing the National Seed Board (NSB) induction training, reviewing and finalising seed regulations, amongst others. This partnership created a strong voice for change through combining resources, providing content expertise and providing opportunities for a wide range of stakeholders to comment on policy documents through well facilitated workshops. The team also supported national association initiatives to provide written communication to MAAIF requesting seed policy review and quick endorsement of the regulatory framework to curb counterfeit agricultural inputs.

3 Partnership with MAAIF for introduction of QDS. From the initial ISSD launch, it was clear that for LSBs to be sustainable, their functioning needed embedding within national seed sector governance. It was vital to jointly pilot innovations on quality assurance and LSB governance with the NSCS. This partnership has proven its value for acceptance of QDS as a seed class and for providing evidence that farmer groups can produce and market good quality seed in communities as LSBs.

4 Partnership with NARO and using zonal research organisations as stations for the ISSD team. This has created visibility for NARO with the farmers in their respective zones. The collaboration also helps quick dissemination of new technologies in the zones. This is because zonal agricultural research and development institutes (ZARDIs) have active farmer groups they are working with. These groups can either become LSBs and disseminate new seed varieties or are groups that will buy newly released varieties produced by LSBs as they are already aware of the positive traits of these varieties. In addition,

continued collaboration and engagement with breeders has created an opening for other players to produce foundation seed, e.g. LSBs and ZARDIs (as opposed to only breeding institutes). The policy change achieved is to provide more options for public-public partnerships and public-private partnerships in addressing early generation seed shortage.

5 Partnership with the Uganda Seed Trader Association (USTA) representing the seed industry. Although most of ISSD's visibility comes from LSBs and introducing QDS in Uganda, its second output focuses on addressing bottlenecks that hamper seed sector development as a whole. Key areas are: quality assurance, access to foundation seed, and seed policy-related activities. Collaboration with the formal seed system is vital for creating space for improvements in the sector as a whole, as well as for acceptance of the new QDS seed class. All annual national stakeholder meetings organised were chaired by USTA and supported by ISSD. This created a common voice. At the same time, both parties also accept that they have divergent opinions on some issues. USTA, as an independent organisation, plays a significant role in policy work and dialogue with MAAIF. It communicates views from its members to MAAIF and lobbies for change.

6 Recognising local initiatives as important policy changes. One of the most successful policy changes occurred at district level through an innovation project funded by ISSD to curb the level of counterfeit seed in the zone. Local governments serve under the Ministry of Local Government and are entitled by law to make their own district legislation. The innovation pro-

ject started in May 2014. The project's objective was to establish district resolutions against counterfeit seed and raise awareness about good quality seed. NilePro Trust Ltd, in partnership with Arua and Koboko District local governments and UNADA West Nile office, implemented the project. As a result of these regulations, both DAOs were able to reject a consignment of fake seed provided under the central government programme 'operation wealth creation' and demand good quality seed for their farmers. Brief 14 provides more information on the process and results.

What did not change and possible solutions

"Fake seed dealers account for more than 35% of seed on the market. We need to support genuine seed producers and also engage dealers in the whole process to deny fake dealers access to any material that can help the faking of seeds," said **Mr Komayombi, Commissioner Crop Protection, MAAIF in the Daily Monitor, 14 May, 2015.**

Despite progress made in policy change and seed sector governance, Ugandan farmers do not have confidence in inputs available in the market. Researchers from Harvard University, Stockholm University, and the National Agricultural Research Laboratories in Uganda (Bolt et al., 2014) found that *"30% of nutrients is missing in fertilizers, and hybrid maize seed contains less than 50% authentic seed."* The research further revealed that *"such low quality inputs results in negative average returns. If authentic technologies replaced these low-quality inputs, average returns for smallholder farmers would be over 50% higher."* Research by Monitor De-

loitte estimates the value lost due to counterfeiting in Uganda to be US\$ 3.9 to \$ 6 million for maize seed.

Of particular concern is the lack of stringent penalties to prevent counterfeit inputs. This is despite growing public outcry, for example over the distribution of counterfeit inputs by the Operation Wealth Creation programme. Agricultural inputs legal and regulatory frameworks are incomplete, which creates an enabling environment for counterfeiters and unscrupulous agro-dealers. A possible solution is to make sure that each district has by-laws and ordinances on seed regulations. Many districts have shown interest in the process and products from Arua and Koboko districts.

To date, regulations for the two principal laws governing the seed sector (Seed And Plant Act, and Plant Variety Protection Act) remain in draft form or are not yet drafted. This makes it difficult to enforce standards for seed distribution and sale. Furthermore, the institutions responsible for assuring authenticity and quality of seed face limited resources and mandates, particularly within MAAIF. Uganda still faces challenges in aligning agriculture input stakeholder interests. The agriculture inputs sub-sector also needs increased investment.

Stakeholders remain fragmented. Thus more efforts are needed to invest in systems that generate stakeholder input and create consensus. This is achievable through using engaging facilitation methods during stakeholder meetings to create more buy-in. Decentralisation of MSPs from national level engagement through zonal and district level platforms is effective in addressing counterfeit seed issues at local level. But this approach lacks an appropriate pathway of com-

municating success stories to national level for policy influence. LSB associations could take a lead role in making sure farmer's seed concerns are addressed at district and zonal levels. This can provide a bridge between local and national initiatives.

If agriculture is the backbone for development in Uganda, as the Minister of State for Agriculture declared in the opening quote of this brief, we need to put farmers at the centre of seed sector development. Farmers need access to quality seed of the right varieties in the right quantities at the right time. This means investing time and resources in understanding a number of factors. Firstly, farmers' seed buying behaviour and farmers' willingness to buy quality seed and which crops and varieties farmers want to buy. Secondly, the political economy of the seed sector. Finally, what each seed sector stakeholder can do to increase farmer confidence in quality seed produced under the formal and informal seed systems.

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Colophon

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