# **ISSD** Uganda



# **NEWSLETTER**



INTEGRATED SEED SECTOR DEVELOPMENT UGANDA PROGRAMME

Table 1: Overview of income earned per zone in 2015

Zone	Crop	2015A Quantity sold (kg)	Average selling price (UGX/kg)	Income earned (UGX)*	2015B Quantity sold (kg)	Average selling price (UGX/kg)	Income earned (UGX)*
	Cassava	177,880	500	88,940,000	14,000	475	6,650,000
	Beans	12,711	3,550	45,124,050	900	3,775	3,397,500
	Potato	2,500	1,000	2,500,000	3,300	2,000	6,600,000
Ab	Soybeans	1,940	3,600	6,984,000	1,050	3,000	3,150,000
	Millet	938	2,500	2,345,000			
	Rice	150	3,600	540,000			
	Simsim	23,255	8,000	186,040,000			
		219,374		332,473,050	19,250		19,797,500
	Beans	133,110	2513	334,549,800	74,661	2,648	197,712,638
arara	Potato	11,900	650	7,735,000	7,600	1,000	7,600,000
Jar	Rice	16,000	1,500	24,000,000			
Mp	Pasture	500	35,000	17,500,000	500	33,000	16,500,000
	Groundnuts				1,174	1,900	2,230,600
		161,510		383,784,800	83,935		224,043,238
	Cassava	276,900	667	184,692,300			
	Groundnuts	1,013	4,285	4,340,705	1,092	3,273	3,574,648
etta	Beans	2,314	1,800	4,165,200			0
get	Pigeon peas	0		0	1,458	3,600	5,248,800
Ž	Simsim	8,899	3,750	33,371,250	2,849	4,500	12,820,500
	Rice	1,100	2,500	2,750,000	0	2,500	0
	Soya bean	400	3,000	1,200,000	3,829	2,125	8,136,625
		290,626		230,519,455	9,228		29,780,573
	Total 946,777,305						273,621,312
	<b>Total Incom</b>	1,	.220,398,617				

<sup>\*</sup> No Groundnuts produced in 2014B. This explains why there are no sales in 2015A

## Results 2015

#### Seed sales and marketing

Table 1 above shows the quantities of seed that were sold in the three zones and average selling price per kilo as well as income from sales for the 2015A and 2015B seasons. In 2015, an estimated total amount of UGX 1.22 billion was earned by all seed growers (LSBs) jointly, of which 78% was earned in 2015A. Income reduced for beans in Abi. No beans were sold in Ngetta for season B. Soya income grew in 2015B for Ngetta. Soya income reduced for Abi. Volume of soybeans, pigeon peas and groundnut seed sold in Ngetta as well as potatoes for Abi increased between the two seasons. Pigeon pea not sold in the first season for Ngetta.

#### Issue 6; August 2016

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#### Vision of ISSD Uganda

Through a vibrant and pluralistic seed sector, ensure that quality seed of superior varieties are available and affordable to a larger number of farmers, thereby contributing to agriculture for food security and economic development in Uganda.



## **Editorial**



Welcome to the sixth issue of the ISSD Uganda newsletter. In this issue, we briefly take you back to the last year (2015) as we share major highlights and achievements made by the ISSD Uganda project. From our experiences in the past two quarters of this year, we share features and lessons around increasing farmer demand for quality seed; sustainability of LSB activities through partnerships and strategies to overcome limited access to and availability of foundation seed.

We thank our partners especially NARO SEC, the ZARDIs and MAAIF for all support rendered to the project activities. We also thank the out scaling partners and other partners taking part in the implementation of the programme activities.

#### **Astrid Mastenbroek** Chief of Party, ISSD Uganda Programme

#### >> FROM COVER PAGE

The average sales showed that for the different seed types, sales and therefore incomes varied significantly. More seed was sold during the first season of 2015 because the seed production in 2014B was higher. Seed produced in one season is sold at planting time in the next season. This is perhaps explained by the fact that seed production in the first season of 2015 was affected by drought and thus a lower volume was produced.

#### **Seed production**

Looking at 2015, the three graphs below show that seed production throughout the year was affected by drought. The graphs show the production volumes for each zones. Overall, looking at the two seasons over the same period of 2015A and 2015B, seed production for the selected crops like cassava, potatoes, ground nuts and beans in the three zones is presented in figures 1, 2 and 3. Cassava production for Ngetta in 2015A was 277 MT. Production for Abi in 2015A was 17 8MT and 14 MT in 2015B. With reference to the western region, more bean seed was produced in the first season compared to the second season. Again there was more seed for Irish potatoes in the second season than first season. Rice was only produced in the second season (Figure 1).

Similar to the Western region, production of seed in the Northern region is higher in the first than the second with the exception of rice. Figure 2 shows slightly more rice seed produced in the second season and more groundnuts, simsim as well as soya bean seed produced in the first season.

In the West Nile, seed production was more pronounced in the second season when compared with the first season. Figure 3 shows more simsim and seed followed by groundnuts were produced.

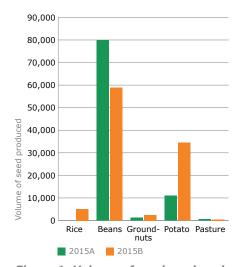


Figure 1: Volume of seed produced per crop in the western region

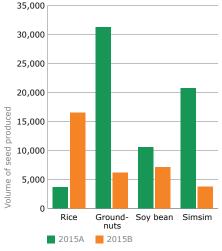


Figure 2: Volume of seed produced per crop in the Northern region

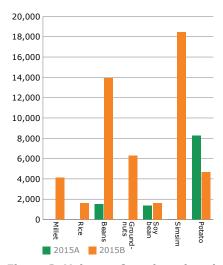


Figure 3: Volume of seed produced per crop in West Nile Region



# Out scaling the Local Seed Business Methodology: How far are we to date?

By Kawuma Christine Menya, Project and Partnership Coordinator

In May 2015, ISSD Uganda entered into agreements with 14 partners¹ in which both parties worked towards the common goal of sharing and expanding best practices in local seed business to new groups of farmers to be engaged in seed production and marketing of quality declared seed in Uganda. This out scaling partnership aimed to increase the number of local seed businesses (LSBs) producing quality seed from the then 30 directly supported by ISSD since 2013 to a total of 100 LSBs. The additional 70 LSBs being established by out scaling partners having the same objectives as ISSD.

#### Partner selection was based on an organisation's;

- a Goals in relation to quality seed availability.
- b Value add to the process.
- **c** Possible challenges to be faced in implementing the approach.
- d to sustainably support LSB activities under its framework after the out scaling project.

Trainers from the selected partner organisations were taken through a Training of Trainers (ToT) on the LSB methodology and they are regularly given refresher trainings. The partner organization selected included local and international organisations, private companies, public agricultural research institutes and farmer associations.



Trainers attending a refresher ToT at Hotel Free Zone in Gulu

The partners were provided with a 50% matching grant to support them in the required capacity building of the new LSBs. ISSD also provided partner staff with a comprehensive training in the LSB methodology in order to prepare them for the task ahead. Each of

the 14 partners has since supported development of at least 5 farmer groups into local seed businesses. The out scaling partners have gradually taken their groups through coaching in the 4 performance area of an LSB which include being professional organised, technically equipped, strategically linked and market oriented.

The groups are trained through direct coaching mainly by the partner trainers with support from the ISSD staff, field inspectors from MAAIF and district local government officials (District Agricultural Officers). Technical practical trainings are carried out on demonstration fields which are set up during every cropping season. In addition to this, LSB farmers are taken through experience learning activities with the pilot LSB groups in each zone; this has proved to be a great motivation for most of these new groups. The farmers are also taken on twinning visits to research institutes, seed value addition centers and seed testing laboratories to mention but a few. This has helped them better understand many of the facts they are taught theoretically by the trainer; after all, seeing is believing.

Most of the above trainings have been conducted and these groups are now being supported into increasing seed production to desirable levels. Many of the partner LSB have however been challenged into attaining this by;

- a Poor weather conditions characterized by both extreme dry and wet conditions in the three zones over the 2015B and 2016A.
- b Low resource mobilization by the groups for the reasons that some lack finances while others are in the process of adjusting into the concept of investing in the seed business vis-à-vis receiving free inputs from development partners.
- c Limited availability of foundation seed at the research stations. This is partly caused by the late orders made by the LSB groups since the foundation seed needs to be planted a season earlier than it can be availed for sale.

For the resource mobilization challenge, ISSD has continuously encouraged the partners to inspire these new groups into investing in seed production by training them in simple resource mobilization techniques like the seed box approach. The seed box approach allows for regular collection of finances in amounts manageable by group members. This process is spread over a period of time to allow for timely purchase of required inputs especially basic seed.

World Vision Intl, Nile Pro Trust LTD, WENIPS, VEDCO, Self Help Africa, CHAIN LTD, Abi ZARDI, Mbarara ZARDI, GADC, Caritas, Maracha District Farmers' Association, CEFORD, Mbarara District Farmers' Association, PRICON



>> To deal with the limited availability of foundation seed at the farmers' levels, LSBs are advised to prepare production plans which will guide them into making orders at the research institutes a season early. In order for them to adequately forecast their seed production activities, the LSBs are guided into studying their communities and other potential markets through market research activities. This coupled with sufficient resource mobilization strategies will enable the groups to obtain the desired amounts of foundation seed at the appropriate time.

It has been difficult for most farmers to deal with the unstable and extreme weather conditions but partners like Self Help Africa (SHA) have supported their groups by introducing them to crop insurance schemes. SHA linked its LSB groups to Jubilee insurance for a special package that insures farmer groups against agricultural losses caused by extreme weather conditions. The partner however highlighted the need for farmer groups to be sufficiently prepared before engaging them in agricultural insurance. This is going to be a learning for both ISSD and the other partners.

In spite of the highlighted challenges, some partner LSBs have been able to progress in seed production since their first season (2015B). Some of the LSBs that have shown exceptional performance both in terms of group development and seed production are those of CHAIN LTD in the South Western zone. In that zone, 70% of total bean seed produced by the out scaling partner LSBs in 2015B was produced by the CHAIN LTD LSBs. The bean seed varieties produced included; NABE 12C, RWR 10, RWR 2245, MOORE 88002, COMLB, NABE 5, NABE 15, ROBA 1 and RWR 2145. See table 2 below.

With suitable weather conditions, the LSBs under CHAIN development planned to more than double their bean seed production in the 2016A season. See table 3 showing 2016A planting returns.

CHAIN LSB	Bean Acreage planted	Expected Bean Yield (kg)
Kanywamaizi Environmental Group	33.1	16,550
Kigarama Widows Self Help Group	8.22	4,110
Kyamusoni ISIDIFA Group	3.2	1,600
Self Empowerment Community Initiative (SECI)	17.2	8,600
Mbarara Women Tutungukye*	5.7	2,850
Total		33,710

Table 3: 2016A Planting returns for CHAIN LTD LSBs

# Achievements under the LSB out-scaling programme

- 1 75 new LSBs have been formed through collaboration with 14 out-scaling partners (15 partnership agreements);
- 2 38 new LSBs have established three functional committees each;
- **3** 60 new LSBs have been linked to sources of foundation seed;
- 4 14 new LSBs (22%) have commenced producing quality seed in season 2015B.

#### Lessons learnt under the LSB out scaling activity

- 1 Creating demand for seed is critical since farmers in most of the communities lack knowledge on the added value from using good quality seed.
- 2 Regular communication and follow up with groups in the early stages of establishment is important for the success.
- 3 Partner trainers need regular supervision and technical support to better implement the methodology because the approach is also new to them.
- 4 Continuous collaboration and partnerships are very instrumental in the growth and sustainability of LSB activities because the concept of an LSB is not widely understood by many stakeholders in the project areas.

	CHAIN LTD LSBs	Quantity of bean seed produced (kg)	Quantity of bean seed sold (kg) (sold in 2016A)	Quantity of bean seed not sold (kg) ie, eaten, sown, spoilt, exchanged, seed available)
1	Kyamusoni ISIDIFA Group	945	500	445
2	Kigarama Widows Self Help Group	3,216	2,348	868
3	Kanywamaizi Environmental Group	8,510	7,030	1,480
4	Self Empowerment Community Initiative (SECI)	734	496	238
5	Kyeizoba Twimukye Farmers' Cooperative	130	80	50
	Total	13,535	10,454	3,081

Table 2: Bean Seed production and sales by CHAIN LTD LSBs over season 2015B



<sup>\*</sup>Is a new group that just recently replaced Kyeizoba Twimukye Farmers' Cooperative which seemed unprogressive in the seed production activities.

- >> 5 Much as trainings are important in equipping the LSBs with various skills and knowledge, learning visits are instrumental in attitude change.
  - 6 Identifying fast and slow learners in a group is important for directing trainers on members that can further support a group and those that need extra attention respectively.
  - 7 The seed box works as a village bank which is member owned, member used and member managed. It is therefore an effective tool for resource mobilization.

With continued support to these new groups by both ISSD Uganda and the partner organisations, they will be able to reach the targeted seed production level which is at least 20 acres per year for each group.

This may not be immediately achievable by all the new LSBs as has some of the CHAIN LTD LSBs but it is something that the groups are being directed to in order for them to become commercially sustainable businesses.

# Multiple Pathways for Promoting Commercialization and Sustainable Production and Delivery of Early Generation Seed of food crops in Uganda

#### By Bonny Ntare, consultant

Access to quality seed and farmer adoption of improved varieties are difficult across many countries in Sub-Saharan Africa. This is partly due to disengaged seed value chains starting from early generation seed (preand basic). In Uganda the key bottlenecks hampering the growth of the seed sector are related to the disconnect between seed demand from farmers and production of required varieties as well as limited quality assurance mechanisms available. Most available crop varieties in Uganda are public varieties bred by the National Agricultural Research Organisation (NARO). At a certain point in the seed value chain, most public varieties with commercial potential become private commodities marketed by seed companies. The remainder of the public crop varieties find their ways to farmers through informal networks or remain on the shelf.

Seed production involves several generations of multiplication. The earliest generation is breeder seed (prebasic), which has been the responsibility of National Agricultural Research Institutes (NARIs) that released the variety. The production and maintenance of breeder seed requires significant resources. Without specific donor funds available, sufficient breeder seed of many varieties has often been a problem, thus limiting the possibilities for further seed multiplication. Breeder seed is used to produce the next generation, foundation seed (or basic-seed). Together, breeder seed and foundation seed are called early generation seed (EGS). Until recently, this has been the sole responsibility of the NARIs. A number of concerns about the efficiency and performance of this arrangement have been raised. The Uganda seed law allows other entities than NARIs to produce and market foundation seed. This provides an opportunity to explore sustainable

solutions to address the concerns on quality and efficiency of foundation seed production.

In the formal seed system, many constraints exist in accessing public varieties. Policies tend to place all EGS of all crops in one basket and propose a one size fits all solution for delivery of EGS to the private sector. Generally, maize is the most commercialised crop with both public and private varieties. Most investments have gone into commercializing maize seed value chain. Maize is therefore taken as a guideline on how EGS for other crops should be commercialised. However, different crop groups have different characteristics that require different solutions to scaling EGS and seed production. As a result, formal seed systems of these crop groups remain small, improved varieties are not effectively commercialized, and farmer access to quality seed is limited. Scaling formal seed systems for EGS production will be critical in increasing availability of quality seed of improved varieties of other food crops to farmers.

To address challenges of low availability of the right varieties at the right time, ISSD Uganda conducted a study to develop actionable steps to address the bottlenecks in the supply of early generation seed in the right quality and quantity for food security crops. This will subsequently avail affordable high quality seed of preferred varieties to smallholder farmers in Uganda. The following crops were chosen for the study, maize hybrids, rice, finger millet and beans, sesame; each representing hybrids, major cereals, small grains, food legumes and oilseed crop groups respectively.

The study identified optimal market archetype for EGS supply. Based on the marginal economic value and the level of demand for crops grown with quality seed of improved varieties, the crops in this study except millet >>>



>> fell under the public-private sector collaboration architype. This is where quality seed of improved varieties for crops with strong market demand but for which the cost of production or demand risk create barriers to private investment and innovation; resulting in public sector involvement. Early generation seed of finger

millet is not profitable to produce, but is promoted by public sector to advance a public goal such as food or seed security. Institutional arrangements, bottlenecks and solutions for each archetype were identified.

An example for food legumes is presented in Fig 1 below.

## **Legumes (Beans)** Public-Private Archetype

#### **Bottlenecks**



#### **Seed characteristics**

- Low multiplication rate
- High cost of production
- Bulky
- Large difference in seed price and grain price



#### **Demand characteristics**

- High use of landraces,
   little pull for improved varieties
- · High reuse of home saved seed
- QDS increased demand
- Free distributions by government and relief agencies



#### Regulatory

- Low capacity for certification
- No intellectual property right system operational



#### **EGS** production

- Breeder contracts + outgrower
- 3 Rounds of bulking of FS required
- Fragmented seed value chain no clear EGS demand forecasting
- Lack of trust amongst producers on quality issues

### **Proposed solutions to bottlenecks**

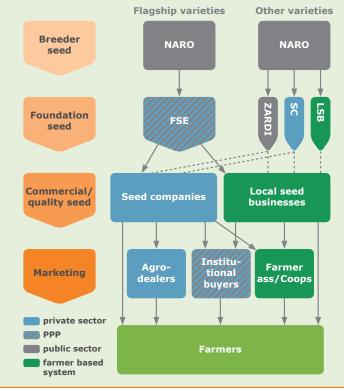
#### **Establish Bean and Groundnut Foundation Seed Enterprise (FSE)**

#### **Ownership structure**

- Entity under NARO Company holding Ltd
- Social enterprise
- Joint venture NARO/Dev't partners

#### **Objective**

- Bulk sufficient quantities of quality FS for most marketable varieties
- Build trust amongst value chain actors



#### Roles and responsibilities

#### Breeder seed

- Breeders produce sufficient quantities at research stations
- 2 flagship varieties exclusively provided to FSE; other varieties produces for S.C, ZARDI, LSBs
- FSE pays full production costs (± 150,000 UGX/kg)

#### **Foundation seed**

- FSE produces and markets most commercial varieties at recovery cost (± 15,000 UGX/kg)
- FSE coordinates supply & demand through pre-booking system
- NSCS to inspect & certify FS
- ZARDIs, SCs and LSBs to produce and sell commercial seed varieties
- Inspected by NSCS/delegated inspectors/Breeders

#### **Commercial seed**

- SC to produce certified seed for bulk orders & retail marketing
- Registered entrepreneurs & LSBs to produce QDS for local market
- Delegated inspection and certification QDS through DAOs and/or accredited inspectors
- NSCS and/or private accredited seed inspectors for certified seed



# "Golden Harvest" The Quality Seed Awareness Campaign

By Maggie Lukowe, Account Director, Omnicom LTD

Quality Seed is gold, that is the new truth that ISSD is pushing to all those farmers that want to hit it big. But why don't we see many a farmer embracing it whole heartedly? The truth is that many of them haven't been given a chance to choose, simply because they are oblivious of the benefits.

This is not to say that efforts haven't been taken to address this challenge in the past, but what is being done now is more calculated if only by definition. The main challenge faced here, is limited knowledge about what Quality seed really is; others include; perceived inconvenience of quality seed accessibility, limited knowledge about the economic benefits derived from such an investment and for others, inadequate capital to purchase the seed.

So, with all these inhibitions in mind, OMNICOM Limited has been contracted by ISSD to create a vehicle that will carry quality seed to the top of every farmer's wish list come planting season.

The advantage with quality seed is that it has so many unique selling points, all tried and tested over and over again. One of them is that it allows farmers the opportunity to be able to forecast what type of yield they can expect (with the right mix of farming methods and inputs of course). Another unique attribute is that it beats any other seed that may be used for planting because it's conditioned to be the best available choice in regards to seed viability and purity. During our exploration, we discovered one interesting sensation; it's that farmers live for one moment, and that moment is the harvest period; this is the moment of truth for all farmers where they anticipate their yield, "Will it work out this year?" they seem to ask. Everything they work towards all year round is in the name of having the best possible yield and the truth is quality seed can quarantee them this. We considered these and developed a few concepts around the unique selling points for the campaign to promote Quality Seed. We considered 'Top Seed' for the fact that quality seed is the best; then 'Sure Seed' for the fact that it can help a farmer forecast yield; and lastly, we believed that Quality Seed is as right as rain for its ability to guarantee a farmer a good harvest, hence the 'Golden Harvest' concept.





>>> Armed with these three concepts, we set out to visit the different ZARDI zones of South Western Uganda, West Nile and Northern Uganda. While there, we interacted with ISSD Zonal Staff, Agricultural officials and farmers alike. The conversations centered on what these concepts meant to them based on their past experiences with Quality Seed.

The insights were very interesting and it was a learning experience for us. Seeing what quality seed is doing for these communities first hand conjures a certain profound joy; stories shared about how people have lifted themselves from poverty is not only touching, but also a testament that there is hope for those smallholder farmers still struggling in poverty.

The agricultural officials were also delighted to share with us their amazing experiences and the ripple effect quality seed has had in their work areas of jurisdiction.

In summary, we found this process very interesting for the fact that everyone we met for the purpose of mind picking was very cordial and helpful and in the end, there was a general liking for the ideas behind these concepts and it was close, but preference for the "Golden Harvest" concept was higher.

So now that we had a concept from our field sojourns, we set out to develop material that would enable us achieve the ultimate goal of this campaign: Promote quality seed awareness and its subsequent use and adoption. This means strong but simple messaging best typified by the campaign tagline "Celebrate Better Yields".

To aid visual communication, we have created posters and flyers with a message that is easy to understand and a layout that will ensure that the target audience is engaged enough to read through every single detail without ever losing interest.

To back this up, we have a radio campaign planned that will offer more detailed information about quality seed with the rationale being that radio is the widest and most popularly used tool for mass media. With this in mind, we developed a radio guide for program development that will help radio stations truly captivate the minds of farmers with simplistic and educative programs. The content here is tailor suited for farmers, both individual mall holder and farmer groups. The radio programs are scheduled to be 40 minutes long and occur once every month. To remind the target audience of the existence of quality seed in between the radio shows, and also to improve outreach, we have an interesting but still informative radio skit that has a very catchy jingle accompanying it. This will go a long way in increasing awareness.

All those are plans awaiting execution, and execute we shall perfectly, but for now all eyes are on the 'Golden Harvest' campaign launch and what we have planned for this will go a long way in easing the acceptance of Quality Seed. The launch by the President of the Republic of Uganda will take place at the Jinja Show grounds during the Nile National Agricultural and Trade Show on the 14th of July 2016. We will be putting our best foot forward.



Members of Obanga Ber farmers group looking at some of concepts we pretested

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