



**Integrated Seed and Sector Development Uganda  
Support to Seed Systems Development Research Project**

**Final Report**

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*Policy and regulatory reform options for seed market development: Expanding the empirical evidence base in Uganda*

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## **1.0 Introduction**

### **1.1 About the SSD project**

Seed systems development (SSD) research project aimed to improve the functioning, integration, and inclusiveness of seed systems and seed markets in Uganda by strengthening links between the regulatory framework, and seed users across multiple dimensions. It was designed to leverage the rapid growth Uganda's market opportunities for seeds, traits, and agricultural commodities while addressing the persistent market and institutional failures that limit the transmission of information between smallholder farmers and seed providers. Ultimately, the project was expected to advance seed system development in Uganda by providing realistic, evidence-based policy options that can accelerate crop-specific development, production, and marketing of new varieties and quality seeds to smallholder farmers across the country. The project was funded by NWO-WOTRO, led by Wageningen University & Research (WUR), Department of Economics, and implemented by a number of consortium of partners including R Wageningen Centre for Development Innovation (WCIDI), International Food Policy Research Institute (IFPRI), Makerere University and the National Agricultural Research Organisation (NARO). Although the general SSD project was implemented from Jan 2019 to Jul 2022, this report focuses mainly on the activities implemented by ISSD Uganda within the period of the last one year, July 2021 to Jul 2022.

### **1.2 Roles assigned to ISSD Uganda through WCIDI**

Under the SSD project, ISSD Uganda was tasked with three major areas including; i) facilitating the engagement of seed sector stakeholders in discussing the findings and recommendations from the seed policy review paper which assessed the performance and reforms of the Uganda National Seed policy; ii) Supporting research activities including framed field experiments to understand the barriers in adoption and willingness to pay for certified hybrid maize seed and Quality Declared Beans seed respectively; and iii) implementing a small study assessing the performance of the potato sector. This end of project report provides a reflection of accomplishments made under the three target outputs, learnings and recommendations for future improvement in similar activities.

## **2.0 Key highlights of accomplishments made**

- ✓ Participated in the desk review process of the seed policy review in Uganda. The seed policy review paper has been submitted to the Journal of Economic Development for consideration. In addition, ISSD Uganda developed and printed an abridged version to aid in the dissemination of the seed policy review findings.
- ✓ Coordinated stakeholder's mobilization and facilitated seed policy dialogue round table meetings to disseminate the key findings from the seed policy review paper in 12 districts covering five agro ecological regions of Uganda.
- ✓ Successfully coordinated applications for and obtained relevant institutional research Board (IRB) approvals required for the implementation of the framed field experiments for hybrid maize and QDS beans.
- ✓ Supported the development and implementation of the QDS Beans study on Behavioral drivers of willingness to pay for Quality Declared Beans Seed in Eastern Uganda through study protocol development, priming treatments (treatment video), technical backstopping and quality assurance during field data collection.

- ✓ Supported the development and implementation of the framed field experiments on Hybrid Drought Tolerant maize (DTM) study on Affordability of hybrid DTM seed in Uganda: "Are expectations or status-quo driving low willingness to pay in Eastern Uganda?". The team was directly involved in the research protocol development and necessary research tools including the questionnaires, technical backstopping and quality assurance during field data collection.
- ✓ Designed and implemented the potato assessment focusing on the changing landscape for adoption of new/improved potato varieties of potato in the Eastern, South Western and Western Highlands of Uganda.
- ✓ Contributed to and participated in all the SSD project workshops, review meetings and online webinars.

## **2.0 Activities implemented by ISSD Uganda under the SSD project**

### **2.1 Stakeholders mobilization and dissemination of the seed policy review paper**

#### 2.1.1 Development of the policy paper

ISSD Uganda was a co-author by directly participating in the review process of the performance of the Uganda's National Seed Policy and subsequently lead the team of authors to the development of the abridged version of the seed policy review paper. The paper was submitted to the journal of Economic development for consideration for publication. It is a technical scientific paper which may not be easily digested by all categories of stakeholders as its major audience were scholars and policy makers at higher levels. For the seed sector stakeholders on the frontline of implementation, especially those at the district level, ISSD Uganda led the development of the abridged version of this review paper in order to capture a wider audience by producing a simpler 2-pager version.

[http://issduganda.org/wp-content/uploads/2022/05/Policy-brief\\_Changing-landscapes-in-Ugandas-seed-sector.pdf](http://issduganda.org/wp-content/uploads/2022/05/Policy-brief_Changing-landscapes-in-Ugandas-seed-sector.pdf)

#### 2.2.2 The stakeholder's mobilization and dissemination of the seed policy review paper

The dissemination of the seed policy review paper on "*Changing landscapes in Uganda's seed system: An analysis on policy and performance*" was carried by ISSD Uganda in five agro ecological regions of Uganda targeting seven district local governments<sup>1</sup>. The main objective of the dialogue and dissemination meetings was to present to the key stakeholders, of the district local government the key findings and recommendation from the seed policy review paper and discuss possible reform options that can be prioritized by the districts to improve the implementation of the seed policy in Uganda.

The target audience for these round table seed policy dialogues were the members of the District Executive Committees (DECs)<sup>2</sup>, which is one of the top decision-making organs in the district local government. In the planning the dissemination meeting was planned to target only 4 members of the district executives: the District Chairperson and the Secretary Production to represent the political wing, and the Chief Administrative Officer with his

<sup>1</sup> Northern (Lira and Gulu), Eastern (Bugiri and Kween), West Nile regions (Nebbi, Zombo and Koboko), Western Highlands (Kasese, Kamwenge and Kyenjojo), South western highlands (Isingiro and Kisoro).

<sup>2</sup> Chief Administrative Officer, the District Chairperson Local Council V, the Residence district commissioner, Secretary production, district production officers, district agricultural officers and additional field inspectors,

District Production Officer to represent the technical wing. After the launch of the district dialogue and dissemination meeting in the districts of northern Uganda, ISSD Uganda realized that the dialogue meeting was not vibrant since it lacked experiences of the trained seed field inspectors. In response to this, ISSD Uganda recommended the adjustment of the participants be made to include the Residence District Commissioner, The District Agricultural officer and two other trained seed inspectors. These changes brought a lot of life to the dialogue meeting as the trained seed field inspectors shared compelling experiences from their inspection functions that inspired the executives in recommending reforms which can be achieved at the district level.

The meetings uncovered a number of issues on the implementation front of the seed policy at district level and how it resonates with the findings in the seed policy review paper as explained below:

- The district executives acknowledged the accuracy of the findings from the seed policy review paper and were able to identify with political economy of seed as being one of the most difficult dilemmas in achieving the goals of the seed policy. Many stakeholders fear to tackle the issue of political economy of seed which has greatly undermined the progress of implementation of National Seed Policy. This is particularly pertinent on the issues of seed quality assurance enforcement, primarily on government programs that supplies quality seed to the various districts. However, the paper highlights this as a constraint to policy reform progress and therefore, having discussed this in the dialogue meetings, district executives realized that it is something which they have to confront and address. Some districts were noted to have already devised approaches to manage these vices and could serve as learning examples to others districts.
- The majority of the top district leadership who participated in the dialogue meetings were not fully aware of the passing of the National Seed Policy and many of them had no access to the policy documents. In addition, the district leaderships were not fully aware of their roles in the implementation of the seed policy. This highlights the limited awareness that exist among the important stakeholders on the National Seed Policy. Through this policy dissemination and dialogue meetings, district leaders were able to understand their roles as the forefront implementers of the National Seed Policy. However, a significant gap still exists on the required comprehension of the National Seed Policy among the stakeholders which limits their contribution towards its implementation.
- There is strong political will to support the implementation of seed policy objectives which directly impact on the service provision by the districts. The district executives were able to identify the need to support resource allocation towards improving access to quality seed in their respective districts. Working with partner organisations in the district to jointly finance strategic activities in policy implementation was cited as an option to improve resource mobilization for implementation of the National Seed Policy.
- A positive emerging catalyst was noted to be the new government programme on Parish Development Model (PDM) which is making districts more aware of the daring demand for quality seed in the districts and therefore the efforts required to ensure its availability. Linking this demand for quality seed can now translate directly with

the need to implement the National Seed Policy objectives to deliver quality seed for the implementation of the PDM.

- The districts were able to identify the immediate potential intervention areas in improving the implementation of the National Seed Policy as: increased support to seed inspection and extension services to farmer led seed enterprises within the district, and promotion of uptake of quality.

The seed policy review paper key findings disseminated to the district executives was a strategic eye opener to the prime role of the district local government in driving much needed reforms in the implementation of the National Seed Policy. Through this dissemination, majority of the districts pledged to provide more attention to seed quality assurance issues in the district especially provide better budget allocation to the department and also involve the district executives in promoting use of quality seed. The technical team from the districts noticed the advantage of using the available political wing to promote uptake of quality seed and improved traits using strategic talking points on seed and extension services. They plan to do this by periodically preparing these talking points for top district leaders to pass them out in every opportunity they interact with the farming community either physically or through mass media contact.

The key areas the districts pledge to provide more attention included: i) Support to availability and access to quality seed by farmers through enforcement of seed quality assurances system. ii) Promote uptake of quality seed. The extension team were tasked to periodically make talking points on quality seed promotion that can be used by the political and other district leaders when meeting the community of farmers. iii) Support the extension services through monitoring the work of the existing extension workers to improve their efficiency but more importantly advocate to the central government of better budget allocation for a meaningful extension support to farmers.

<b>District</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
<i>Gulu</i>	4	2	6
<i>Lira</i>	5	0	5
<i>Kween</i>	8	2	10
<i>Bugiri</i>	8	0	8
<i>Zombo</i>	8	1	9
<i>Koboko</i>	7	0	7
<i>Nebbi</i>	8	1	9
<i>Kasese</i>	8	1	9
<i>Kamwenge</i>	7	2	9
<i>Kyenjojo</i>	8	1	9
<i>Isingiro</i>	6	2	8
<i>Kisoro</i>	8	1	9
<b>Total</b>	<b>85</b>	<b>13</b>	<b>98</b>



**Photo 1: Policy paper dissemination meeting, Chief Administrative Officer Boardroom Gulu, District Local Government Feb 23, 2022**

A total of 98 (13 Female) individuals participated in the district level seed policy review paper dialogue and dissemination meeting. These meetings, like most other government policy discussions only involved 13% female participants, indicating their minimal involvement in higher decision-making processes.

## **2.2 Supporting development and implementation of two framed field experiments**

### 2.2.1 About the framed field experiments

The SSD project planned to implement two framed field experiments in Uganda targeting beans and maize. These studies were led by two PhD student from Wageningen University and research and ISSD Uganda came to support the field activities involved in the research. These studies include;

- a) Behavioral drivers of willingness to pay for quality declared bean seeds in Uganda
- b) Affordability of hybrid DTM seed in Uganda: Are expectations or status-quo driving low willingness to pay?

Proposals to these studies are available on [https://www.dropbox.com/s/v3ju76aajp2ms6e/3 %20Full%20proposal%20design%20DTM%20anchors%20v121221.pdf?dl=0](https://www.dropbox.com/s/v3ju76aajp2ms6e/3%20Full%20proposal%20design%20DTM%20anchors%20v121221.pdf?dl=0)

<https://www.dropbox.com/s/zc5j41zyn986wt5/WTP%20for%20QDS%20Beans%20Research%20Proposal.docx?dl=0>

### 2.2.2 Fulfillment of relevant requirements for conducting research in Uganda

ISSD Uganda supported the drafting of the concept notes and subsequently guided the development of the study tools including development of the questionnaires, priming protocol and priming materials (the show cards for the maize study and the video for the beans study). In the development of the video treatment for instance, ISSD Uganda coordinated the identification of the potential media firm (Bridge Films) to carry out the video shooting in line with the predesigned scripts for the priming treatments.

ISSD Uganda also supported the application and coordination to obtain all the necessary approvals for such research studies to proceed as required by the National Council of Science and Technology (UNCST). This included:

- i) Sought for and obtained district approvals in proposed districts of research
- ii) Submitting application to Makerere University IRB office,
- iii) Subsequent submission of the application to Uganda National Council of Science and Technology

All two processes above moved swiftly for the maize framed field experiment and the team received the approval timely. For the beans framed field experiment however, there were unexpected delays in the review of the IRB application by Makerere University which was going to interfere with the schedule for field data collection. To manage this situation, ISSD Uganda used its dominance and experience in the seed sector activities in Uganda to provide a cover letter justifying the need to carry on with data collection while at the same time follow up on the approval process by the IRB office in Makerere University. This was also made possible with that fact that, the QDS Beans studies were conducted in the districts where ISSD Plus project were implemented. This made it easy to conduct the research activities without any interruption. However, IRB and the UNCST approval for



beans research remain pending and ISSD Uganda will continue to follow this up and obtain the approval for documentation purposes.

### 2.2.3 Field data collection

Additional support to the success of the two framed field experiments included: i) preparation and execution of field pre-test with the PhD students to validate the research protocols; ii) supporting the assessment of the data collection firm engaged to handle data collection; iii) sourcing and recommending of data collection materials including QDS Beans; iv) technical monitoring of the field data collection activities to ensure professionalism and quality adherence and; daily updating of the PhD students to ensure that they were aware of all relevant field dynamics at play during data collection and where necessary, they provided recommendations or approval on strategies to improve the data collection process. The data collected under the framed field experiments was availed to the students.



*Figure 1: An enumerator implementing one of the protocols of the maize framed field experiment in Eastern Uganda*

## **2.3 Conducting the potato assessment**

### 2.3.1 About the potato assessment

The potato study was a later addition to the list of tasks to be done by ISSD Uganda. This followed the gap observed by the SSD project team, which indicated that, although there is good progress in achieving most deliverable on Beans as one of the key SSD project priority crops, little was being done on potato. In this regard, the project team leader recommended that ISSD Uganda take up the responsibility to design and implement a study on the status of the potato seed sector in Uganda to cater for the outputs required on potato indicators. ISSD Uganda then designed and implemented potato sector scan which focused on understanding the changing landscape for the adoption of new improved potato varieties in Uganda. Attention was placed on adoption of the Dutch potato varieties which were promoted by the International Fertiliser Development Centre (IFDC) REACH project in

selected regions of Uganda in 2017 because of their favorable processing attributes. Results from this assessment are meant to guide responsible actors on actions that should be taken to stimulate even greater levels of adoption of new improved potato varieties. The ISSD Uganda team implemented this study with the full guidance of the WCDI team in collaboration with a senior team member of the SSD project (Dr. Prossy Ntakyo, Kabale University). Major activities that were implemented are explained in subsequent sections.

### 2.3.1 Development of a concept note and data collection tools

ISSD Uganda drafted a concept note in consultation with other members of the SSD team. This assessment was mainly qualitative and it utilised focus group discussions and key informant interviews to collect data from ware potato farmers, extension officers supporting potato farmers, regulators, potato processors/ traders. The assessment targeted selected potato growing districts in the South Western Highlands (Kisoro, Rubanda), Eastern (Mbale, Kween) and Western Highlands (Kyegegwa) of Uganda. Four sets of interview checklists were developed to cover each category of stakeholders approached. For the regulators, an online survey was sent out. Details on the methodology are included in the *dropbox link for concept note and checklist is below*.

<https://www.dropbox.com/s/t0cvxox4jxjeotw/potato%20concept%2016%20june%202022%20go%20BMT%20ck.docx?dl=0>

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### 2.3.2 Mobilisation of participants, enumerator training and field planning

In preparation for the field data collection activity, the ISSD Uganda team visited each of the districts to inform the Chief Administrative Officer and District Agricultural Officer of the potato assessment. No IRB approval was sought for this activity because we considered it to be part of a follow-up activity to evaluate work done by the concluded ISSD Plus project and IFDC REACH project. During these visits, the team also visited each of the farmer groups proposed to participate in the activity to confirm their existence and inform them of the planned activity.

A set of 10 enumerators who knew the local languages spoken in the selected districts were officially engaged to conduct the field data collection. Most of these were already in our database of field assistants so we were sure that they would do a good job. The ISSD team gave the enumerators a two-day training that emphasised the principles of conducting FGDs and reviews to understand the various checklists that were to be used for data collection. They also received training on how to transcribe audio recordings.

### 2.3.3 Data collection and report writing

In each of the five districts (Kisoro, Rubanda, Kyegegwa, Mbale, Kween) selected for the assessment, two potato growing sub-counties were selected and from each of these, two FGDs were conducted (one for males and one for females). In Mbale district however, it was hard to get farmer groups that had a sufficient number of males hence we opted to have mixed FGDs instead. The enumerator teams were well trained to balance the dynamics in such a group to ensure that all participants were actively involved. The team implemented a total of 20 FGDs with farmers and 28 KIIs with traders, processors and extension workers within the period 18th – 29th July 2022. The team also sent out an online survey to stakeholders in research and regulatory institutes using kobotoolbox and this will provide more input into the study. Input to this online survey is still ongoing. The ISSD team started



analysing data and compiling the report in the first week of August hence this particular activity is in progress. The report will be completed by 19th August 2022. Transcribed notes from the data collection activity are available on <https://www.dropbox.com/sh/tqj19089qccxnky/AABGvQUxz7wwR3BvrXyhqadaa?dl=0>

### **3.0 Reflection on the SSD project activities**

#### **3.1 Planning, implementation and outputs**

We looked at how each of the major project activities were initially planned, what was implemented differently and how did this impact achievement of desired outputs.

The seed policy review paper dissemination activity underwent the following modifications in its implementation based on experiences from the first meeting:

- The number of targeted stakeholders at district level were doubled from the previous planning (from 4 to 8) to improve the relevance of the discussion. This change improved the level of interactions allowing district agricultural officers and trained seed field inspectors to share their experiences in enforcing seed quality assurance issues at district levels.
- The dissemination meeting focused more on rural district local government by replacing most of the cities which were substituted with more rural districts where agricultural activities are more critical.
- In relation to the two research projects, the SSD project and WCI had initially planned to have ISSD Uganda conduct the field data collection for the two research projects but to ensure that efforts were focused on monitoring for data quality, the field data collection role was taken on by a firm (Gaplink LTD). Under this arrangement, the ISSD Uganda team focused on supervising and guiding data collection while maintaining sufficient communication with the PhD students that were in charge of the research

#### **3.2 What went well under the SSD project?**

- The seed policy dialogue compelled district leaders to realize their roles in supporting the implementation of the National Seed Policy. This is contrary to their earlier beliefs of waiting for all instructions from central government through the Ministry of Agriculture Animal Industry and Fisheries. Through the seed policy dialogue and dissemination meetings, district executives pledged to increase budget allocations towards seed and extension activities in the district.
- The engagement of a third-party firm in the frame field experiments provided sufficient space for ISSD Uganda to provide effective quality assurance oversight and the required technical support during data collection for both studies.

#### **3.3 What did not go well under the SSD project activities?**

Find below the key challenges faced that strained achievement of set out outputs:

- Mobilization of the district leaders for the seed policy review paper dialogue and

dissemination meetings was challenging as most districts thought ISSD Uganda had already closed

- Districts which became cities of recent had not yet formalize the separation process of the district local government and the cities. This made it difficult to target participants for the meeting due to unclear structures.
- The approval process for the Institutional Research Board (IRB) by Makerere University School of Social Sciences delayed for the beans framed field experiment and it hadn't yet been received by the time of concluding data collection. This is despite the expedited option paid for by the research. The delay was majorly due to the changes which were taking place within the Makerere IRB institutions which was beyond the capacity of ISSD Uganda.
- The target districts for the seed policy review paper dialogue and dissemination meetings were few due to limited project time and budget

### **3.4 How did you address these challenges?**

- The ISSD Uganda facilitators for the seed policy review paper dialogue and dissemination meeting decided to include a day before the meeting scheduled day to conduct physical mobilization through courtesy call to offices of top district officials especially the Chief Administrative Officers, The District Chairpersons and the Residence district commissioners. This improved their direct participations and limited delegations which were not having strong powers for decision making required in the dialogue meeting.
- Districts which became cities were substituted by rural districts to target more relevant participants for the seed policy review paper dialogue and dissemination meeting. This strategy also saw more rural district appreciate the dialogue meeting than the cities engaged at the start of the dissemination activities.
- ISSD Uganda used its popularity as a seed sector project to launch the field data collection by writing to the various district chief administrative officers and Residence district commissioners in the study districts to grant permission for the data collection to proceed as the project follows up on the delayed institutional approval.

### **3.5 What are the major take home lessons?**

- Most district executives are not familiar with their roles in the implementation of the National Seed Policy as they think these are activities of the subject matter specialists.
- Future seed policy dialogue and dissemination meetings should target at least 50% of the districts in the country to be able to get a more representatives of the seed sector stakeholders. The district level meetings could then be followed by regional level high

table synthesis meeting to provide a more concrete policy reform suggestions that can be adopted by all district local government.

- Utilisation of an external consultant for selected research activities like data collection leaves the leading team with sufficient time to focus on the quality of data collected.

### **3.6 What recommendations do you have for better implementation of similar research activities?**

- Early submission of IRB application to allow time for the review process

### **4.0 Pending actions**

Although the project has come to its conclusion, there are a few areas that still need to be followed up and these can be accomplished without the need of a major budget. These include:

- a) Online national level dialogue meeting to discuss the district level finding from the dissemination of the seed policy review paper
- b) Follow up with Makerere University on IRB approval for the beans framed field experiment
- c) Completion of online data collection, data analysis and interpretation, and report writing for the potato study

ISSD Uganda will continue liaising with Wageningen University and Research's WCDI and DEC on the accomplishment of these three pending actions before the end of September 2022.