



Integrated Seed and Sector Development Uganda

# ANNUAL REPORT

## 2023-2024



Transition to ensuring resilient seed and food systems for sustainable agricultural production





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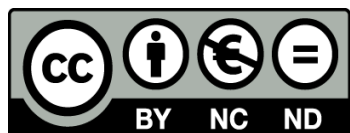
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## List of Acronyms

ADDIE	Analyse Design Develop Implement Evaluate
CABI	Centre for Agriculture and Biosciences International
CBO	Community Based Organisation
CRAFT	Climate Resilient Agribusiness for Tomorrow
DAO	District Agricultural Officer
DEED	Describe Explore Explain Design
DLG	District Local Government
EKN	Embassy of Kingdom of the Netherlands
EWS-KT	East West Seed – Knowledge Transfer
FAT	Fertilizer Advice Tool
FGD	Focus Group Discussion
FNS-REPRO	Food and Nutrition Security Resilience Programme
GAP	Good Agronomic Practices
GAAP	Generally Acceptable Accounting Principles
HortiMAP	Horticulture Market Acceleration Project
HR	Human Resource
ICT	Information Communication Technology
IFDC	International Fertiliser Development Centre
IPPs	Integrated Plot Plans
ISSD	Integrated Seed and Sector Development
JICA	Japan International Cooperation Agency
KII	Key Informant Interviews
LSB	Local Seed Business
MAAIF	Ministry of Agriculture, Animal Industry, and Fisheries
MFS	Musomesa Field Schools
MSP	Multi-Stakeholders Processes
NARO	National Agricultural Research Organisation
NGO	Non-Governmental Organisation
NIGI	Nutrition and Income Generation Initiative
NHL	NARO Holding Limited
NITA-U	National Information Technology Authority Uganda
NOSP	National Oil Seed Project
NSCS	National Seed Certification Services
NURI	Northern Uganda Resilience Initiative
PIP	Participatory Integrated Planning
PIs	Farmer Innovators

PSSD	Private Sector Seed Development
PST	Pesticide Selection Tool
PRiDe	Promotion of Rice Development
QDS	Quality Declared Seed
RHoMIS	Rural Household Multi-Indicator Survey
SMS	Subject Matter Specialist
SNV	Stichting Nederlandse Vrijwilligers
STTS	Seed Tracking and Tracing System
TOT	Training of Trainers
URA	Uganda Revenue Authority
USTA	Uganda Seed Traders' Association
VCA	Value Chain Actors
VSLA	Village Savings and Loans Association
WCDI	Wageningen Centre for Development Innovation
WENR	Wageningen Environmental Research
WHT	Withholding Tax
WPR	Wageningen Plant Research
WUR	Wageningen University and Research
ZAABTA	Ziobwe Agaliawamu Agri-business Training Association
ZARDI	Zonal Agricultural Research Development Institute

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## Message from the Managing Director

ISSD Uganda is well on course to establish itself as a highly reputable organisation in the space of agricultural development in Uganda. Having transformed from project to organisational mode in 2021, we are now a well-established and fully registered NGO in Uganda. Using the four pillars of excellence and competence of ISSD Uganda which include Sector transformation, Capacity building and Knowledge Brokering, Partnerships, and Sector Coordination, ISSD will further play the catalytic role of stimulating growth in the agricultural sector to further contribute to inclusive growth and development at the different levels of the seed and food value chains.

Since its establishment in 2021, ISSD Uganda has already been able to attract and work with 14 different partners, both local and international. Our unique selling proposition has been our unique organisational qualities, particularly being the only Seed Sector Development Centre of Excellence in Uganda and the region; our reputation of impeccable integrity, excellence (always striving to exceed all expectations), and the reputation for having the best professionals.

The management structures for sustained operations have also been strengthened by developing and implementing a Human Resource (HR) Strategy and enhancing the governance and oversight functions of the organization. We have been able to strengthen our governance by operationalizing the Board of Directors. The composition of the board is as follows: Dr Bonny Ntare, Chairman, Dr David Kalule Okello (Subject matter advisor); Mr William Were (Legal and compliance advisor); and Ms Phina Kamanyire (Finance and Administration Advisor). We have grown from the initial skeleton staff of 8 to now 54 dedicated employees. We have been able to identify, develop and diversify revenue base to support anticipated growth by creating mechanisms for mobilization of resources from diversified sources.

ISSD Uganda's corporate culture is defined by a set of corporate values that define how we operate daily – innovation, integrity, excellence, collaboration, and accountability. They reflect how we interact with our partners, colleagues, and farming communities. We hold each other accountable for creating an organisation we can all be proud to work for.

The future of ISSD Uganda is very bright, considering our unique status and reputation. We will continue to receive both solicited and unsolicited clients/partners. This is inspired by our unique status in the Seed Sector, being a key local implementing partner for WUR, our unique local expertise in the acclaimed PIP (Participatory Integrated Planning) methodology, our ability to diversify into different thematic areas of work in Agriculture, and our excellent Organisational reputation. We thus welcome all partners with common interests in the development of the Agricultural sector in Uganda.

Thank You



Patrick Oyee

Managing Director

# 1. Introduction

## 1.1. About ISSD Uganda

The Integrated Seed and Sector Development Uganda (ISSD Uganda) is an independent local NGO rebranded and incorporated in 2021, however, it has been in existence since 2012 as Wageningen University & Research (WUR) Uganda. ISSD Uganda builds on the impactful outcomes of projects that aimed to nurture a vibrant, pluralistic and market-oriented seed sector over the last decade. The transition from intermittent project status to a stable organization mode was motivated by shifting development priorities and the emerging challenges in the agriculture sector requiring expansion in the scope of interventions for the short and long-term impact. The long-term focus of the new organization is aligning resources and partnerships for effective and efficient delivery of the vision and mission (Figure 1). A change in strategic direction beyond seed sector development thus ensures compatibility with the contemporary requirements of more development partners.

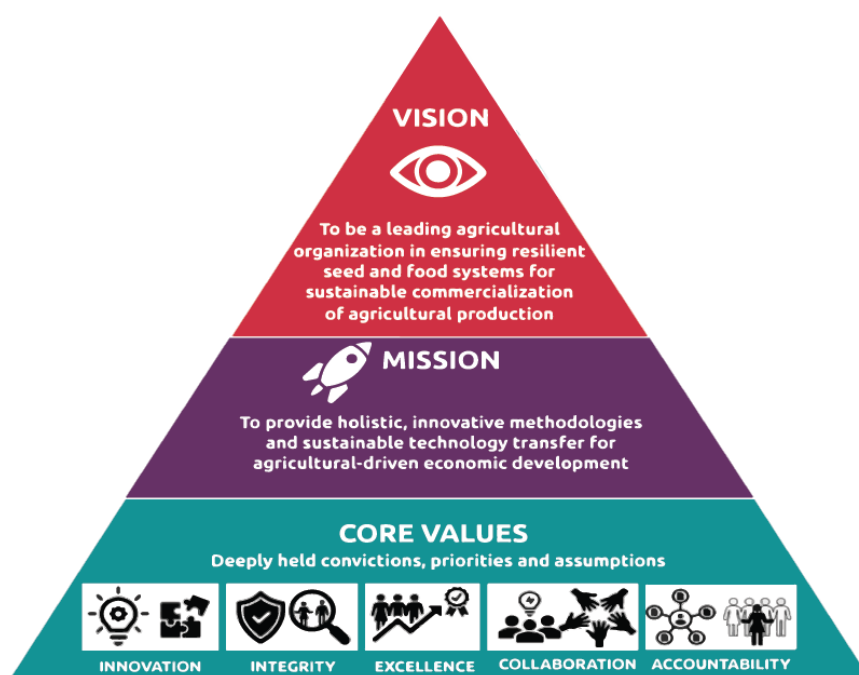


Figure 1: Vision, Mission, and Core Values of ISSD Uganda

## 1.2. Expertise portfolio

Our expertise and core competencies span various areas in agricultural and natural resource management (Table 1). Seed sector initiatives empower local farmer groups to establish and manage professionally organized farmer-led enterprises and quality-declared seed (QDS) production. In agricultural productivity, strengths lie in value chain development, horticulture technology transfer, and climate-smart agriculture. Expertise in stakeholder coordination demonstrated through multi-stakeholder processes and public-private partnerships. Research and monitoring competencies include policy innovation and robust project evaluation. ISSD Uganda also contributes to smallholder farmer development, emphasizing participatory planning and gender integration, as well as sustainable resource management on watershed restoration. Additional skills include knowledge brokering between academia and research, policy development and implementation, and initiatives to enhance nutrition and income in fragile communities.

**Table 1: ISSD Uganda expertise portfolio**

Area of expertise	Focus	Core competencies
Seed Sector	Development & Transformation	- Support for seed sector development - Farmer-led QDS enterprises - Certified seed production technologies
Agricultural Productivity	Value Chain & Technology Transfer	- Value chain development & market linkages - Horticulture technology transfer - Crop technology dissemination - Climate-smart agriculture
Stakeholder Coordination	Coordination & Partnerships	- Multi-stakeholder processes - Public-private partnerships brokerage
Research & Monitoring	Innovation & Evaluation	- Innovation-driven research - Monitoring & evaluation
Smallholder Farmer Development	Farmer Participation & Gender	- Participatory integrated planning (PIP) - Gender integration in farming systems
Sustainable Natural Resources Management	Sustainable Practices	- Sustainable resource management - Watershed restoration
Knowledge Brokering	Research Collaboration	- Academia and research collaboration
Policy Evolution	Policy Development & Implementation	- Policy reviews and development - Innovative policy implementation
Fragile Communities	Nutrition & Income Enhancement	- Agriculture-based nutrition and income enhancement

### 1.3. Thematic areas

ISSD Uganda's strategic plan (2022-2026) delineates a comprehensive framework aimed at enhancing the agricultural landscape in the country, emphasizing six critical areas of intervention.

First, the strategic plan aims to strengthen seed and food systems to withstand climate change and market fluctuations, ensuring food availability for all. Second, it emphasizes both horizontal and vertical coordination of value chains to enhance efficiency and productivity in agriculture. Third, the plan advocates for inclusive policies in agriculture, promoting diverse stakeholder perspectives. Fourth, it also prioritizes implementing practices that enhance productivity while protecting the environment and supporting community livelihoods. Fifth, ISSD Uganda seeks to empower farmers and stakeholders by improving market access and functionality. Lastly, the plan highlights supporting evidence-based innovations in seed and food systems, driving innovation through research and development.

To achieve these multifaceted objectives, ISSD Uganda plans and implements these interventions in close collaboration with key sector players, including farmers, agribusinesses, and other stakeholders. Additionally, partnerships with international development organizations play a crucial role in facilitating resource sharing and knowledge exchange, thereby enhancing the effectiveness and reach of the strategic plan's initiatives.

### 1.4. Strategic achievements

The transition from a project-based entity to a thriving organisation has enabled ISSD Uganda to expand its operational scope, to transcend the previous achievements in the seed sector that historically defined its identity

and legacy. This evolution is reinforced by the robust and strategic partnerships, which have not only strengthened the foundations but also endowed ISSD Uganda with the necessary flexibility to adopt and implement a broad spectrum of activities aimed at fostering sustainable agricultural practices, improving crop yields, and enhancing the overall livelihoods of farming communities. Table 2 summarizes the achievements through proactive approaches and dedication to creating lasting positive changes within the agricultural landscape in 2023-2024.

#### 1.4.1. Seed system development

The Local Seed Business (LSB) approach promotes the professional organization of farmers, transforming them into market-oriented enterprises dedicated to the production of high-quality seeds specifically adapted to the unique agricultural conditions of their local environments. During the period in review, ISSD Uganda conducted training of 54 extension workers in advanced seed production techniques, which has significantly bolstered the capacity to effectively disseminate knowledge and skills within the farming community. Through their efforts, these extension workers have empowered a total of 31 farmer trainers, who have taken on the vital role of educating and mentoring their peers. As a result, 52 new Local Seed Business (LSB) farmer groups have been established within the West Nile and Acholi subregions. These groups are fostering collaboration among farmers and ensuring the collective production of quality seeds of locally adapted crops. The guaranteed availability of high-quality seeds is crucial for enhancing agricultural productivity. In addition, the LSBs play a pivotal role in increasing resilience among farmers against a range of agricultural challenges, including the threats posed by pests, diseases, and the adverse effects of climate variability.

#### 1.4.2. Food systems resilience

ISSD Uganda is playing a pivotal role in enhancing food system resilience by bridging the existing gaps in the dissemination of knowledge regarding recommended agronomic practices among smallholder horticultural farmers. The issue of inadequate adoption of best practices is particularly concerning, as it significantly hampers crop yields and directly contributes to diminished income levels for these farmers. A comprehensive training program has equipped a total of 26 agronomists with the necessary skills and knowledge in advanced vegetable and fruit production techniques to support smallholders effectively. ISSD Uganda also engaged in extensive capacity-building efforts by training 80 farmer trainers specifically in vegetable production. These farmer trainers are critical as they serve as local champions, disseminating vital agronomic knowledge and best practices within their communities. In addition to the training programs, ISSD Uganda has developed and made available a suite of decision-support tools aimed at guiding stakeholders in the efficient application of fertilizers and pesticides. These tools are essential for farmers seeking to optimize their crop production while minimizing resource wastage and environmental impact.

#### 1.4.3. Sustainable natural resources management





Restoring the resilience of Ugandan highland watersheds and farming systems involves empowering smallholder farmer households to effectively manage their natural resources as the foundation of their livelihoods. The Plan Intégré du Paysan (PIP) approach is pivotal in enhancing household capacity to make informed land and resource use decisions. This participatory framework fosters a sense of ownership among the farmers and improves the sustainability of the interventions undertaken. Our CommonGround project has trained 306 farmer trainers in the principles and practices outlined in the PIP approach. These trainers have facilitated the adoption of sustainable land use practices in 319 fields across the Rwenzori, Kigezi, and Elgon regions.

#### 1.4.4. Enabling policy environment

ISSD Uganda has been at the forefront of fostering a conducive policy environment for promoting equitable food and agricultural systems since 2021. The organization designs its initiatives to ensure the sector's policies and regulations are coherent and responsive to emerging challenges and opportunities. A notable achievement is the Seed Tracking and Tracing System (STTS), developed to eradicate counterfeit seeds by enhancing the traceability

and monitoring of seed quality throughout the supply chain, ensuring that farmers have access to high-quality seeds. The recent rollout of STTS in collaboration with the National Seed Certification Service (NSCS) of the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) involved targeted training of 90 regional level stakeholders including agricultural officers, private seed company staff, and QDS producers.

**Table 2:** Strategic achievements 2023-2024

Seed Systems Resilience <sup>1</sup>	Food Systems Resilience <sup>2</sup>	Sustainable Natural Resources Management <sup>3</sup>	Enabling Policy Environment <sup>4</sup>
 Local Seed Business (LSB) farmer groups established <b>52</b>	 Farmer trainers skilled in vegetable production techniques <b>80</b>	 Number farmer fields with sustainable land use practices <b>319</b>	 Regional level stakeholders trained on use of the STTS <b>90</b>
Organization staff trained on LSB methodology <b>54</b>	Partner agronomist trained on greenhouse and fruit production <b>26</b>	Number of farmer trainers who are skilled in the PIP approach <b>306</b>	
Farmer trainers capacitated in the LSB methodology <b>31</b>	Number of digital decision-support tools for horticulture production <b>2</b>		

**Sources of icons:**

<sup>1</sup> <https://www.vecteezy.com/free-vector/icons>

<sup>2</sup> <https://www.dreamstime.com/minimalist-fork-laurel-wreath-icon-healthy-sustainable-eating-image326084819>

<sup>3</sup> <https://previews.123rf.com/images/alekseyvanin/alekseyvanin2311/alekseyvanin231100635/217857099-rural-landscape-line-icon-linear-style-sign-for-mobile-concept-and-web-design-nature-landscape-with.jpg>

<sup>4</sup> [https://t4.ftcdn.net/jpg/02/57/42/47/240\\_F\\_257424726\\_2XIYQv6njVCI4Nmi2JTjoP8QHvUKxbcq.jpg](https://t4.ftcdn.net/jpg/02/57/42/47/240_F_257424726_2XIYQv6njVCI4Nmi2JTjoP8QHvUKxbcq.jpg)

### 1.5. Implemented projects and consultancies

**Table 3:** Projects and consultancies 2023-2024

Project Title	Regions	Goal	Period	Funder	Category
Restoring Resilience of Highland Farmer Communities and Agroecosystems in Uganda (CommonGround)	Elgon, Kigezi, Rwenzori	Build resilient farmer communities and watersheds through sustainable farming, watershed restoration, and better marketing for 150,000 households.	2022-2027	EKN	Local implementing partner
Horticulture Market Acceleration Project (HortiMap)	East, Southwestern Highlands (Kigezi)	Improve food security, increase incomes, create jobs, and promote growth in Uganda's horticulture sector	2022-2024	EKN	Local implementing partner
Seed Laws Toolbox: Seed Tracking and Tracing System (STTS) rollout in Uganda	Nation-wide	To provide the required capacity building to ensure the STTS starts operating.	2023	SeedNL	Consultancy
Training of trainers to strengthen the capacity of NURI staff in the Local Seed Business (LSB) and Quality Declared Seed (QDS)	Northern, West Nile	To pilot QDS production through the establishment of LSBs among the existing NURI farmer groups	2023	NURI	Consultancy
Farming systems assessment for the Climate Resilient Agribusiness for Tomorrow (CRAFT) Project	Eastern Uganda (Mbale, Bukedea, Kween)	To gather evidence on sustainability and resilience in farming systems and understand its impact on scaling climate-smart agriculture interventions through the CRAFT Project.	2023	SNV	Consultancy
Study on the Rice Seed Value Chain in Uganda	Busoga, Bukedi, West Nile	To review legal, regulatory, and institutional frameworks of the seed sector, explore the context of different rice seed producers in the West Nile and Eastern Uganda, and assess the functionality of the Seed Testing Laboratory at Ngetta ZARDI and make recommendations to inform the establishment of a better adaptive laboratory in Abi ZARDI.	2024	JICA	Consultancy
Training Youth Groups on the Local Seed Business (LSB) Model in Uganda	Central Uganda	To provide ZAABTA-affiliated youth groups with the knowledge and skills required to effectively establish and manage seed businesses.	2024	CABI	Consultancy

## 2. Institutional systems strengthening for programs and services

ISSD Uganda leverages its coalitions with local institutions and external partners to initiate and enhance the transformation of the agricultural sector. By fostering these collaborative relationships, ISSD Uganda promotes innovative learning opportunities that empower stakeholders within the agri-food system. This approach not only facilitates effective coordination among diverse stakeholders but also strengthens essential linkages that are crucial for holistic development. Moreover, ISSD Uganda actively supports farmer-led seed business entrepreneurship, which serves as a vital component in addressing the systemic challenges faced by farmers and farmer groups. By focusing on these critical points of leverage, the organization has effectively identified and targeted specific gaps that align with its strategic intervention areas.

### 2.1. Promoting resilient seed systems for sustainable commercial agriculture

The above objective builds on our experience spearheading the creation of a vibrant, pluralistic and market-oriented seed sub-sector in Uganda. However, significant gaps still exist in the seed system, especially for food security crops like legumes, oil seed, small cereals and vegetatively propagated crops. The informal sector supplies about 80% of seed for these crops but experiences major setbacks that eventually lead to low farmer yields. Sector stakeholders identify the importance of LSB methodology in solving the problem of quality seed availability because it engages the local community in the intervention. Despite not having a running project to support the direct development and rollout of the QDS regulation during the concluded year, ISSD Uganda continued contributing to the nationwide scaling of LSB establishment through engagement with like-minded partners. These collaborations entailed i) building organisation capacity on LSB establishment and ii) sharing experiences and lessons learned to motivate others. Subsequent sub-sections provide details of these engagements.

#### 2.1.1. LSB development support to the Northern Uganda Resilience Initiative (NURI)

Northern Uganda Resilience Initiative (NURI) (2018–2023) aimed to enhance resilience and promote equitable economic development in parts of Northern Uganda, including refugees and refugee-hosting communities. One of NURI's sustainability strategies was to ensure that farmers adopted good agronomic practices (GAP), which included the use of quality seed. The limited access to affordable quality seed, however, hindered its use for production. NURI sought to address this challenge by integrating the LSB approach within its other programme interventions as a solution to the quality seed access challenge that its beneficiaries faced. NURI contracted ISSD Uganda to strengthen the programme's technical team in LSB methodology and the QDS system. This was intended to enhance the staff's ability to effectively support the development of selected farmer groups into sustainable LSB. This objective was achieved through three main activities i.e.

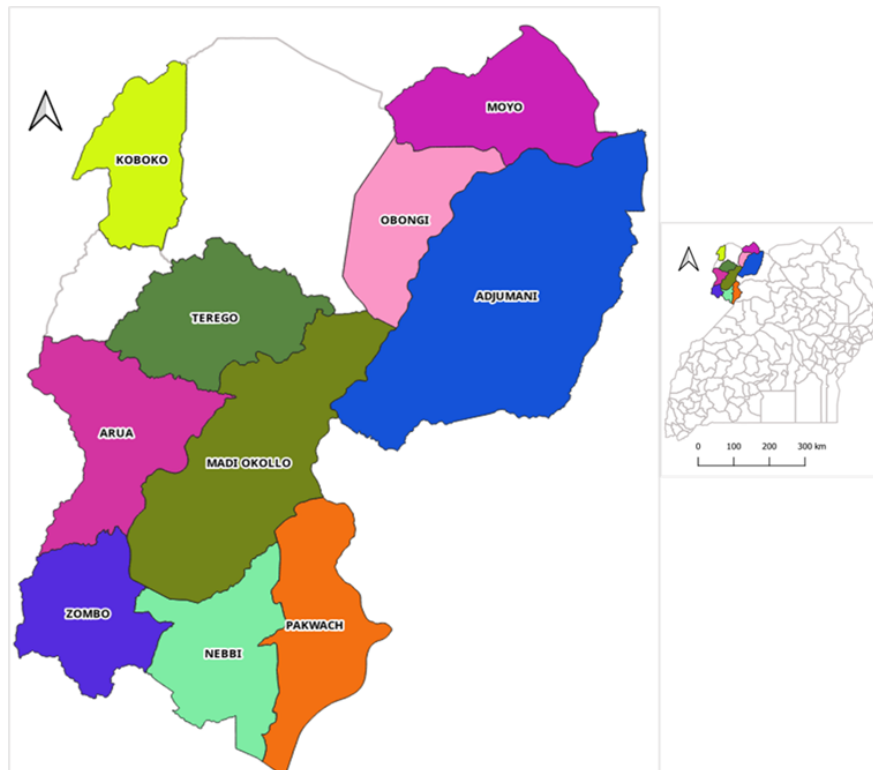
#### Training of Trainers for NURI extension staff

ISSD Uganda conducted a two-phase LSB methodology training for 54 NURI programme implementing staff to enhance their capacity in facilitating LSB development process. A mix of methods including PowerPoint presentations and more interactive activities like group work, buzz and brainstorming during the training sessions. The first TOT phase also involved field practice on facilitation methods to enhance trainees' skills in delivering content to farmer groups. The ToT sessions were aligned to the LSB training manual (2015), and all sessions followed the four building blocks of an LSB to ensure a balance of agronomy, business and group organization knowledge for more sustainable results. The trainees were provided with selected reading materials to facilitate self-learning for both the staff and farmers. These included

- LSB training manual (for extension staff)

- Plant and Seed QDS regulations
- Selected field inspection guides
- National Seed Policy
- Local Seed Business Trainer manual (for farmer trainers)
- QDS production handbook
- QDS Flip book (for farmer trainers)

#### Monitoring visits to newly established LSBs



**Figure 2:** NURI Districts where new LSBs were established

The ISSD Uganda staff conducted monitoring visits to the newly established LSBs to

- Assess the farmer groups' growth into sustainable LSBs
- Evaluate the staff capacity in supporting the LSB development process
- Provide field-level guidance and technical backstopping to the farmer groups and NURI staff
- Support NURI in expectation levelling among the farmer groups
- Generate recommendations that NURI can use to improve LSB development process

The monitoring activity involved field visits to seed production sites and locations for a total of 52 LSBs. The emphasis of the field visits was on the growth stages of the seed crops, level of implementation of good agronomic practices, and potential threats to crop growth. ISSD Uganda staff also held intense discussions with the farmers to address critical concerns regarding technical knowledge in seed production and marketing. It was noted that NURI needed to i) create direct linkages between farmers and key stakeholders; ii) coach the groups in selecting seed enterprises based on market needs; iii) facilitate practical learning with demonstration gardens; iv) increase of contact time with the seed farmers and v) balance effort conferred to the different LSB building blocks.



Overall, the LSB farmers exhibited sufficient understanding and confidence when discussing the QDS business and they were motivated to move forward with the seed production business. This indicated that the knowledge and skills shared with the NURI extension staff during the ToT effectively trickled down to the seed farmers.

### 2.1.2. Learning visit for the FNS-REPRO South Sudan seed sector actors

The Food and Nutrition Security Resilience Programme (FNS-REPRO) is a four-year programme funded by the Government of the Netherlands to address the cause-effect relationship between conflict and food insecurity in Somalia, South Sudan and Sudan. These are some of the most unstable and vulnerable countries in Africa.

In November 2023, ISSD Uganda planned a learning visit by 15 members of the seed hub which comprises of seed actors and stakeholders from Somalia (1), Sudan (1) and South Sudan (13). The participants were representatives of Government (1), University (3), Non-Governmental Organisations/Community based organisations (6), private sector (3), international funding organisation (1), and FNS-REPRO project partners (1). The hub is a neutral and independent platform for information sharing, capturing good practice, joint learning, and the development of policy briefs.

The learning visit to Uganda was part of follow-up action on the seed sector transformation priorities and deriving a road map for a robust, inclusive, sustainable, and resilient seed sector of the mentioned countries. The benchmarking trip exposed the FNS-REPRO affiliated seed sector actors to operations of commercialised farmer-led seed-producing entities. Specific learning areas included

- Organisational setup of commercial farmer-led seed enterprises
- Technical operations of LSB in the QDS business
- Relevant innovations by LSBs in the aspects of product marketing and value addition
- Contribution of LSBs to quality seed use by communities and farmer incomes
- Seed certification system most relevant to a commercial farmer-led seed enterprise

#### Approach for conducting the learning visit

The four-day visit involved presentations, Q&A sessions, LSB site visits (4), interactions with district officials, and sub-group discussions. Based on the experience gained over the years, the District Agricultural Officer (DAO) and LSB members emphasised key considerations required when establishing farmer-led seed enterprises. The visiting team also held regular reflection sessions to analyse the strengths and weaknesses of the LSBs. The team also made recommendations to the LSBs based on their observations.

#### **Box 1: Other reflections areas for the team**

- Critical considerations when establishing a sustainable LSB
- Implications of these considerations in the context of the represented countries
- Key actions to take for establishing a farmer-led seed system.
- The role of individual organizations in implementing the actions

#### Recommended actions for the seed value chain actors

The visiting team discussed and proposed measures needed to consider achieving the envisioned transformation that harnesses the opportunities in increasing quality seed access through the intermediary system (Table 4).

**Table 4:** Recommended actions for the seed value chain actors

Recommended actions	GOV	NGOs	CBOs	UNIV	RES
Promote favourable policy formulation or review the LSB framework					
Stimulate stakeholder collaboration for seed sector transformation					
Pilot the LSB approach with minimal dependence on handouts					
Awareness creation on the QDS and LSB system within communities					
Establish and promote market linkages for seed producers					
Support variety development and produce adequate basic seed					
Build capacity of seed value chain actors on LSB building blocks					
Create a pool of competent trainers that can lead LSB establishment					

### Key actions for the FNS-REPRO

Key actions for the visiting team are based on the participants and their roles in the seed value chain. Each category of participants had an opportunity to think through their contribution to the recommended transformation (Table 5).

**Table 5:** Key actions for FNS-REPRO

Stakeholder category	Action
NGOs CBOs	<ul style="list-style-type: none"> <li>• Incorporate the LSB approach in seed proposals and concept notes</li> <li>• Build capacity of livelihood staff on farmer-led seed production</li> <li>• Train farmers on commercialisation of seed production</li> <li>• Re-align seed production activities to the LSB building blocks</li> <li>• Emphasise income diversification among farmer groups</li> <li>• Ensure regular interaction with the ministry and research</li> <li>• Review the available baseline report on seed systems resilience and use it as a benchmark for the implementation of organisation-specific baseline studies</li> </ul>
Research, Academia, MAAIF	<ul style="list-style-type: none"> <li>• Inform policy associated with QDS production and marketing</li> <li>• Contribute to basic seed access by supporting its multiplication for selected crops of focus by the breeder</li> </ul>

### 2.1.3. Private Sector Seed Development (PSSD) Burundi Learning visit

Private Sector Seed Development (PSSD) is a project of the International Fertiliser Development Centre (IFDC) that aims to expand the market for high-quality seeds in Burundi and to establish commercial seed production and marketing as a self-sustaining business.

IFDC Burundi and Uganda partnered with ISSD Uganda to organize a learning visit for the PSSD project team to gain insights of Uganda's seed sector. The visiting team of 20 comprised of Government officials (2), private Sector (2), Local NGO staff (2) and IFDC Burundi staff (14).

The main objectives of the visit were to:

- Innovative seed production technologies at both farmer and seed company level.
- Seed post-harvest management system.

- Seed Market/ Business models developed by ISSD and seed companies.
- Advocacy and seed regulation.
- Quality Declared Seed (QDS) system.

#### Key actions for the PSSD

The three major lessons for the team were the need to; i) create awareness among stakeholders at all levels, ii) invest in the country’s infrastructure, and iii) support all the nodes of the seed value chain right from Early early-generation seed production to marketing of seed to farmers. Based on the various observations and learnings, the team pointed out the following immediate actions for each category of stakeholders:

**Table 6:** Immediate actions for Burundi stakeholders

Stakeholder	Action
<b>Local NGOs</b>	<ul style="list-style-type: none"> <li>• Strengthen linkage between seed companies and seed buyers</li> <li>• Increase promotion of quality seed within farmer communities</li> <li>• Regular monitoring of out-growers</li> </ul>
<b>IFDC Burundi staff</b>	<ul style="list-style-type: none"> <li>• Strengthen the organization structure of existing cooperatives and seed breeders (administratively)</li> <li>• Develop agro-dealer networks within the seed value chain to support product commercialization and lighten the roles of seed multipliers</li> </ul>
<b>Government agencies</b>	<ul style="list-style-type: none"> <li>• Encourage shift from informal to formal seed systems</li> <li>• Improve quality assurance processes for seed produced</li> <li>• Farmer sensitisation on use of quality seed</li> </ul>
<b>Private sector</b>	<ul style="list-style-type: none"> <li>• Integrated systems of out-growers or LSBs to increase seed volumes; improve seed marketing strategies based on lessons</li> <li>• Increase mechanization for seed production and processing.</li> </ul>



**Figure 3:** FNS REPRO team during a visit to Aye Medo Ngeca LSB, Dokolo district

#### 2.1.4. Training Youth Groups on the Local Seed Business Model in Central Uganda

The programme PlantwisePlus of the Centre for Agriculture and Biosciences International (CABI) aims to provide 75 million smallholder farmers in 27 countries with access to the knowledge and skills necessary to improve their production practices to increase income, food security and food safety by producing more and higher quality food. In Uganda, PlantwisePlus collaborates with Zirowe Agaliawamu Agri-business Training Association (ZAABTA), a farmer association, that currently works with over 1,000 youths across the districts of Luwero, Mukono, Kayunga, Nakasongola, and Nakaseke.

PlantwisePlus contracted ISSD Uganda to provide knowledge and skills required to effectively establish and manage seed businesses to 10 ZAABTA-affiliated youth groups. The assignment involved conducting a diagnostic study of the 10 youth groups in liaison with CABI and partners, followed by organizing a training of trainers (TOT) for 30 young women and men interested in using the LSB model for producing and marketing quality seed. Training was followed by monitoring and coaching of the newly established LSBs.



**Figure 4:** Trainees engaged in group work on seed production planning during the TOT

##### Diagnostic assessment of ZAABTA youth groups

ISSD Uganda conducted the assessment through 3-4-hour sessions with all available group members available to attend. To make the assessment interactive, the ISSD Uganda team split each group into sub-groups that discussed and presented their deliberations to the rest of the members for validation. The assessment focused on the strengths and weaknesses of the groups; and each group's strengths could be leveraged to enhance readiness for LSB work, while its weaknesses tackled through targeted redress actions.

The foundation for LSB development is hinged on key group basic attributes notably: group governance, entrepreneurial orientation and history, access to land and storage capacity. Based on these attributes, the general interpretation of the findings was that the groups are all young (1-6 years in existence). Despite the lack of sufficient experience among groups, the diagnostic assessment identified various strong points that could furnish a good basis for LSB development. Most groups; i) have access to inputs; ii) are linked to key sector stakeholders; iii) have access to credit sources and iv) have access to land for hire.

## LSB Training of Trainers for ZAABTA youth farmers

ISSD Uganda conducted a 5-day training of trainers for 31 youth farmers on the establishment and management of seed businesses. The trainees who represented the 10 ZAABTA-affiliated youth groups, are expected to train other group members. The training focused on building capacity of the selected farmer trainers on the LSB methodology, strengthening facilitation skills, and creating strategic linkages with essential stakeholders.

The training followed a similar TOT structure that was used for training the NURI extension officers but included more interactive sessions to ensure the training was participatory and easily understandable for learners at this level. This ToT also paid special attention to enhancing participants' facilitation skills by covering topics such as knowledge transfer methods, understanding adult learners, designing learning events, Analyse Design Develop Implement Evaluate (ADDIE) model for instructional design, learning domains, training methods, and critical instructional techniques.

## Proposed enterprises for the seed business

Most of the groups expressed interest in producing seed for African Indigenous Vegetables (AIVs) and 60% considered bean seed production as an additional enterprise. Other seed crops of interest included soybean and pasture. It is important to note that Seed for AIVs can be produced and marketed within a community on trust basis, but it will not be certified because these crops are not catered for under the Seed and Plant (QDS) regulations (2020). This calls for regulatory changes to accommodate this category of crops in the available regulations, an action that the CABI team could consider creating an enabling environment for the new LSBs.

## Reflection on the engagement

Since seed production was a new venture for the farmers hence, they were concerned about; i) the suitability of available land for seed production; ii) delays in quality assurance from DLG and MAAIF-NSCS; iii) the inability to meet quality expectations for seed production, and iv) maintaining isolation distance in areas with small land holdings per household.

The collaboration with CABI was unique in the sense that it was the first NGO-led effort to target QDS production in the central region of Uganda. The other intervention that took off last year in this region is the MAAIF-led National Oil Seed Project (NOSP). ISSD Uganda invites more development partners firstly, to choose the LSB methodology as an option for solving the quality seed access challenge for the orphaned crops and secondly, to engage ISSD in these efforts both as a knowledge broker and partner.

ISSD Uganda's approach to promoting a resilient seed system not only focuses on supporting increased production and marketing volumes of quality seed but also; i) strengthening the operations and efficiency of the seed value chain; ii) supporting seed quality assurance; iii) improving the capacity of farmer institutions to absorb quality seed for higher production and productivity and iv) Supporting community seed banks.

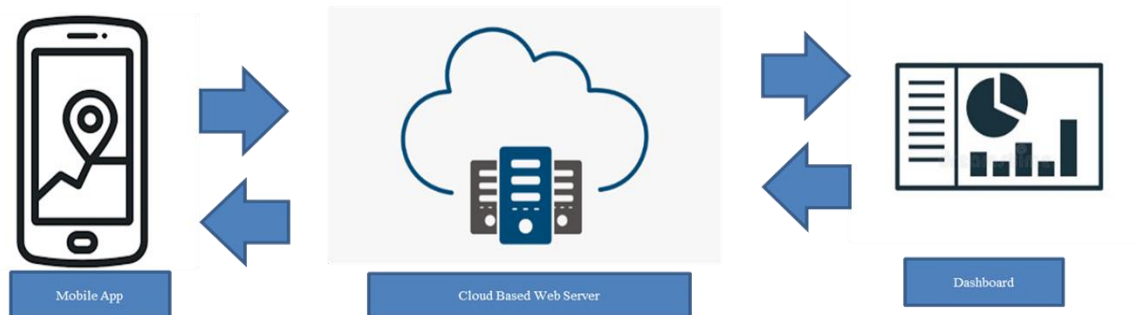
## 2.2. Promoting evolution of inclusive policies for agricultural development

An enabling environment plays a key role in creating and sustaining the growth of any value chain. In its strategic plan, ISSD Uganda planned to support the development of an enabling environment for equitable food and agricultural systems and to promote stakeholder engagement for sector vertical coordination at all levels. ISSD Uganda has vast experience in these efforts for the seed sector, but its strategy extended utilization of these strengths to other agricultural sub-sectors as well.

### 2.2.1. Seed Laws Toolbox: Seed Tracking and Tracing System Rollout in Uganda

The concluded ISSD Plus project sought to enhance the development of policies and regulatory tools for improving variety development, seed multiplication, and dissemination. However, the enforcement of regulatory frameworks remained weak due to the absence of an operational system for tracking and tracing the origin of seeds in the market. This lack of a suitable traceability system allowed counterfeit seed perpetrators to continue their operations

in the seed market. Developing a digital STTS was a game changer in the seed sector as it would help eradicate fake seeds and expand the market for quality seeds. With support from the ISSD Plus project, the NSCS MAAIF led the development of the STTS software in partnership with Wageningen Centre for Development Innovation (WCDI), Uganda Seed Trade Association (USTA), and Eight Technologies Ltd (a local ICT company) in 2021. However, the funding was insufficient to facilitate the system's rollout to users.



**Figure 5:** Illustration of STTS interphase

To address this funding gap, ISSD Uganda secured funding from the Netherlands Food Partnership through SeedNL to implement the STTS rollout in Uganda. The six-month Seed Laws Toolbox grant (June to December 2023) supported critical activities required to operationalize the system according to the National Seed Policy 2018. NSCS led the rollout activities by mobilizing different seed sector stakeholders and providing guidance on migrating the system to the government central server managed by the National Information Technology Authority Uganda (NITA-U). STTS rollout involved sector-wide capacity building to ensure the system starts operating. The specific objectives were; i) to ensure system readiness for training and rollout activities; to ii) update, configure and upload relevant data into the digital STTS; iii) to conduct capacity building for selected user categories of the system including government and private sector organizations (formal); iv) to create awareness of the STTS application for seed stakeholders in Uganda including research, seed producers and suppliers and seed users and; v) to support STTS software migration from a private to the government server at NITA-Uganda.

Created	Applicant	Field Name	Person responsible	Size	Crop	variety	Seed class	Inspector	Status	Action
2 days ago	charles sendaaza	mawanda	kalaso enterprises	5	Maize (Zea mays )Open Pollinated Varieties), Longe 5 (Obatampa POP 63 QPM)	longe 5	Basic seed	Not assigned	Inspector assigned	
2 days ago	Mbabazi Isaac	Field A1	Sam	2	Maize (Zea mays )Open Pollinated Varieties), Longe 5 (Obatampa POP 63 QPM)	LONGE 5	Basic seed	Not assigned	Skipped	
2 days ago	Mbabazi Isaac	Field A2	Paul	4	Soybeans, Kabanyolo 1	LONGE 6	Certified seed	Norah Nabachwa	Skipped	
2 days ago	Mbabazi Isaac	Field A3	Peter	1	Maize (Zea mays ) (Hybrid), Longe 7 H	LONGE 7	Certified seed	Norah Nabachwa	Rejected	
2 days ago	Mbabazi Isaac	Field A4	Jane	3	Maize (Zea mays )	LONGE	Certified	Norah	Rejected	

**Figure 6:** Visualization of seed growers' submitted planting return

### **Box 2: Highlights of accomplishments made**

- Capacity building training and operations included vetting data points, vital data upload and system upgrade and setting the stage for user's training at various levels
- Trained and onboarded a total of 22 (3 Female) NSCS inspectors of MAAIF inclusive of commissioners and 2 representatives of USTA on STTS software application and use
- Trained a total of 31 (8 Female) seed industry players including agronomists from 10 seed companies, 2 QDS producers, NARO Holdings Ltd for basic seed production.
- Conducted a national STTS popularization meeting led by NSCS commissioners to create awareness on STTS operationalization in Uganda.
- Initiated the institutional process for STTS migration to the Government server for purposes of integrating important services required by the system such as Uganda Revenue Authority (URA) payment request authorization routing for service costs.
- Handed over hardware support including 2 brand new Laptop computers and 10 tablets to support NSCS inspectors and commissioners in operation at the STTS desk at MAAIF.

### **Reflections from the STTS roll out activity**

- MAAIF played an active role in the execution of all activities during the STTS rollout which was an indicator of interest in the engagement
- High motivation and full participation from the seed industry players - Seed companies, USTA, NARO Holdings Ltd (NHL) and QDS producers - in the STTS training and rollout. Participants of the training were happy with the digital system rollout as many indicated that its operationalization was long overdue
- NARO through NHL approved the transition of the process of pre-booking of basic seed by all seed producers to the digital STTS
- Migration of STTS software to the government server under NITA-U was not as complicated as was anticipated. A few procedures in communication clarified the most needed approval from NSCS commissioner

### **Box 3: Subsequent actions recommended for seed sector stakeholders**

- Trainings for more seed industry players especially seed companies and LSBs
- Establishment of a MAAIF-NSCS ICT team that will maintain the system
- Facilitation of the farmer-led seed enterprises with hardware like tablets to strengthen their ability to transition from paperwork to the digital application
- Awareness creation on the digital STTS with specifically among government agencies including National Identification and Registration Authority (NIRA), Ministry of Information Communication and Technology and Uganda Revenue Authority
- Support to MAAIF in development of a data management and sharing plan to facilitate planning, investment and decision making
- MAAIF-NSCS to streamline funding sources for maintenance and future STTS upgrade

### **Accomplishments made by MAAIF since this rollout project**

Since ISSD concluded the project activities in December 2024, MAAIF conducted regional-level training of district officials to ensure wider usability of the system. So far, MAAIF has completed these trainings in the sub-regions of Karamoja, Teso and Southwestern. It targeted to also cover areas of West Nile, Eastern (Busoga sub-region) and



Western (Bunyoro sub-region) by December 2024. MAAIF is also tailoring the system to accommodate quality assurance for vegetatively propagated crops.

Overall, this project was a success, and the collaborations established during the rollout are expected to strengthen the continued operation of the system. Despite its short period, the funding from SeedNL was instrumental in completing the pending work. Operationalisation of this system will contribute to strengthening the enforcement of agriculture-related regulations and undertaking periodic sector analyses to identify policy gaps. This will eventually lead to the creation of an enabling environment for equitable food and agricultural systems. ISSD Uganda calls upon development partners to take on the subsequent actions shared for the smooth utilization of the system.

### 2.2.2. Regional multi-stakeholder platforms (MSPs) under the HortiMap Project

The Horticulture Market Acceleration Platform (HortiMAP) is a four-year project (2021-2024) funded by the Embassy of the Kingdom of Netherlands in Kampala (EKN) and led by TechnoServe Uganda. This project is being implemented in collaboration with several partners, one of them being Wageningen University and Research (WUR). Two of the project objectives assigned to WUR are implemented locally by ISSD Uganda and include

- To strengthen the institutional and regulatory frameworks for an inclusive and high-quality sector
- To sustainably improve productivity and supply of high-quality horticulture products

Under the second objective, ISSD Uganda worked in collaboration with WCDI to implement enabling environment activities. In the partnership, ISSD Uganda was specifically responsible for establishing collaboration with existing platforms or organizations; ii) launching additional or new national and regional horticulture sector platforms and iii) establishing thematic working groups/task forces around key institutional, regulatory and (emerging) systemic sector issues.

#### Accomplishments made under the MSP activities

To this end, ISSD Uganda conducted regional multi-stakeholder platforms (MSPs) in Eastern and Southwestern Uganda where participants identified various challenges they face in the horticultural value chain in their regions. These were clustered into four thematic areas including a) Horticulture production and agro input supply and use; b) Postharvest handling, processing and marketing of horticultural produce, c) Consumer & food safety issues and d) Policy and regulatory issues. A midterm review of the HortiMAP project recommended that the MSPs could benefit platform members better if they focused on marketing and food safety issues. Each regional MSP also set up a five-member core working group consisting of a subject matter specialist (SMS), a competent value chain actor (VCA), and three other core members to reflect and take lead in activities planned under each thematic area.

#### A reflection on the status of the MSPs

Although the platforms were initiated, HortiMAP still needs to follow-up and stimulate action since more bilateral discussions is required among targeted stakeholders. The bilateral engagements should prioritise discussions on awareness creation, deeper analysis of the challenges identified, and assignment of roles and responsibilities to implement the proposed recommendations. This will propel the MSPs to advanced levels that can influence policy, enactment of by-laws, and their enforcement at the district level.

There is uncertainty about the extent to which the core working groups will effectively manage platform work on their own considering that the HortiMAP project is ending in 2024. It is evident that they still need the commitment of both HortiMAP and WCDI/ISSD Uganda to guide the synthesis of each thematic area for deeper action. In addition, implementation of platform activities requires facilitation and coordination which requires resources.

This HortiMAP work package contributes to ISSD's strategy to promote engagement for sector vertical coordination at all levels. Planned interventions on consumer & food safety issues will also contribute to the organisation's strategy to combat food safety risks at household and market levels.

### 2.3. Promoting more sustainable resilient and inclusive food systems

With experiences gained from past project activities in the horticultural sector, ISSD Uganda set out to more deliberately venture into interventions in the food systems through its current strategic plan. The strategies prioritized in this regard include

- promoting climate-smart interventions to enhance food security through improved farming and livelihood practices
- Combating food safety risks at household and market levels
- Supporting nutrition and income generation initiatives
- Build resilience of natural resource systems for balanced provision of food and ecosystem services

ISSD Uganda made significant steps to contribute to promoting climate-smart interventions that enhance food security, support nutrition and income generation initiatives and build resilience of natural resource systems.

#### 2.3.1. TOT on practical vegetable production under the HortiMap Project

The HortiMap project aims to improve smallholder farmers' horticultural practices and skills. WUR and ISSD Uganda partnered on a three-tiered Training of Trainers (TOT) program. Tier 1 training targeted 26 master trainers consisting of TechnoServe business advisors, associate agronomy advisors, and private-sector agronomists. The WUR team provided refresher courses and supplemental modules focusing on greenhouse and fruit production. Tier 2 training conducted by master trainers aimed to provide 80 lead farmers with knowledge and skills to conduct independent training activities in their respective farmer groups. Unfortunately, the master trainers in Kabale, Kisoro, Kanungu and Ntungamo required additional support from ISSD Uganda to conduct independent group training. Tier 3 involved training smallholder farmers in their communities. WUR trainers provided ongoing support and guidance to ISSD Uganda for the Tier 2 and 3 training.

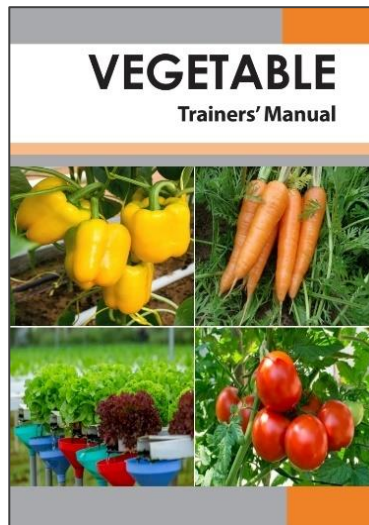


**Figure 7:** Greenhouse production training – Visit to a nursery

#### Development of training materials

WUR and ISSD Uganda also worked on creating training materials to help master trainers support farmers in their extension roles. The user-friendly vegetable trainers' manual (Figure 8) builds trainers' facilitation skills and

capacity to manage pests, diseases, and nutrient deficiencies. TechnoServe translated the manual into local languages, focusing on Southwestern Uganda. The manual and accompanying crop protection leaflet illustrate and describe the prevalent pests and diseases in vegetable crops.



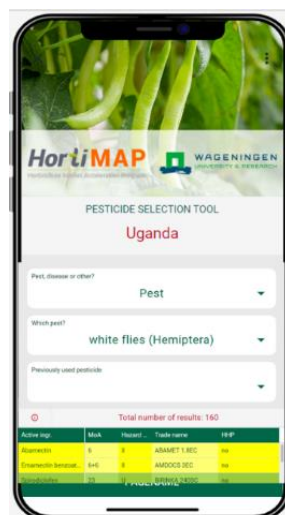
**Figure 8:** Cover of the vegetable training manual

#### Support to development of technical decision-making tools

ISSD Uganda supported the WUR team in the development of two smartphone and web-based supportive decision-making tools for farmers i.e. the Pesticide Selection Tool (PST) and Fertilizer Advice Tool (FAT). Both tools were designed to support extensionists in providing agronomic advice to farmers.

#### Pesticide Selection Tool

The PST tool provides recommendations for the application of crop protection products based on pest and crop combinations, allowed crop-specific product application, and health and environmental risks. By using this tool, a farmer lowers pesticide resistance since it facilitates chemical selection based on active ingredients. It also minimizes the use of illegal products by excluding unregistered chemicals.



**Figure 9:** Pesticide selection tool (PST)

#### Fertilizer Advice Tool

The FAT tool recommends fertilizer application rates that are calculated based on soil characteristics (e.g. soil type, nutrient content) and crop nutrient demand. As a result, a farmer's decision to apply fertilizer is based on the

specific crop needs which minimizes, i) over- and under-fertilisation, ii) optimises production, iii) reduces environmental impact and, iv) lowers input costs. The WUR team trained the master trainers on the utilization of both tools to support farmers, and the latter provided feedback on their experience with the systems. This was crucial in adapting and updating the tools.

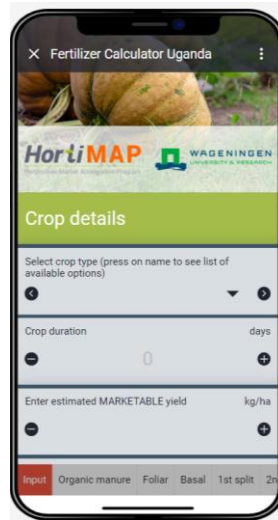


Figure 10: Fertiliser advice tool (FAT)

#### Box 4: ISSD’s approach to building capacity of key horticultural sector players

ISSD Uganda's collaborations with Wageningen Plant Research (WPR) have resulted in extensive expertise in capacity-building, sustainable production, and good horticulture practices. So far, the three implemented horticulture projects include ISSD-Plus, the Nutrition and Income Generation Interventions (NIGI), Horticulture Market Acceleration Project (HortiMAP). ISSD Uganda focuses on capacity building through a tiered training of trainers (TOT) approach. The training modules cover a range of agronomic topics, including seed and variety selection, nursery management, crop protection, pesticide application, soil and water management, production planning and crop management, post-harvest management, food safety and traceability, and nutrition awareness. These trainings aim to increase productivity, reduce costs, improve market access, and promote sustainable and climate-smart farming practices. The TOT program comprises interactive, practical, and participatory sessions. Furthermore, ISSD Uganda supplements the training modules with manuals, materials, online e-learning modules, and support for creating an online community of practice for trainers. The organization also provides services for developing communication, promotion, and awareness materials for the horticulture sector, such as technical guides, crop guides, farmer management tools, and applications.

#### 2.3.2. Restoring Resilience of Farmer Communities and Watersheds in the Highlands

CommonGround is a 4-year project funded by EKN and led by Wageningen Environmental Research (WENR) with ISSD Uganda as the implementing partner. The project goal is to build resilient farmer communities and watersheds in the highlands of Kigezi, Rwenzori and Elgon (Figure 11). The project works through three pathways that are closely connected using PIP as the core strategy at the farm, household and community level (Figure 12). The PIP approach is central because it aims at building a foundation for sustainable and inclusive development in (smallholder) farmer communities, with “motivation, stewardship and resilience” (i.e. resilience-based stewardship). The approach empowers and motivates stakeholders to invest in improving their living conditions and natural environment by working collectively towards more resilient farms, communities, and watersheds.

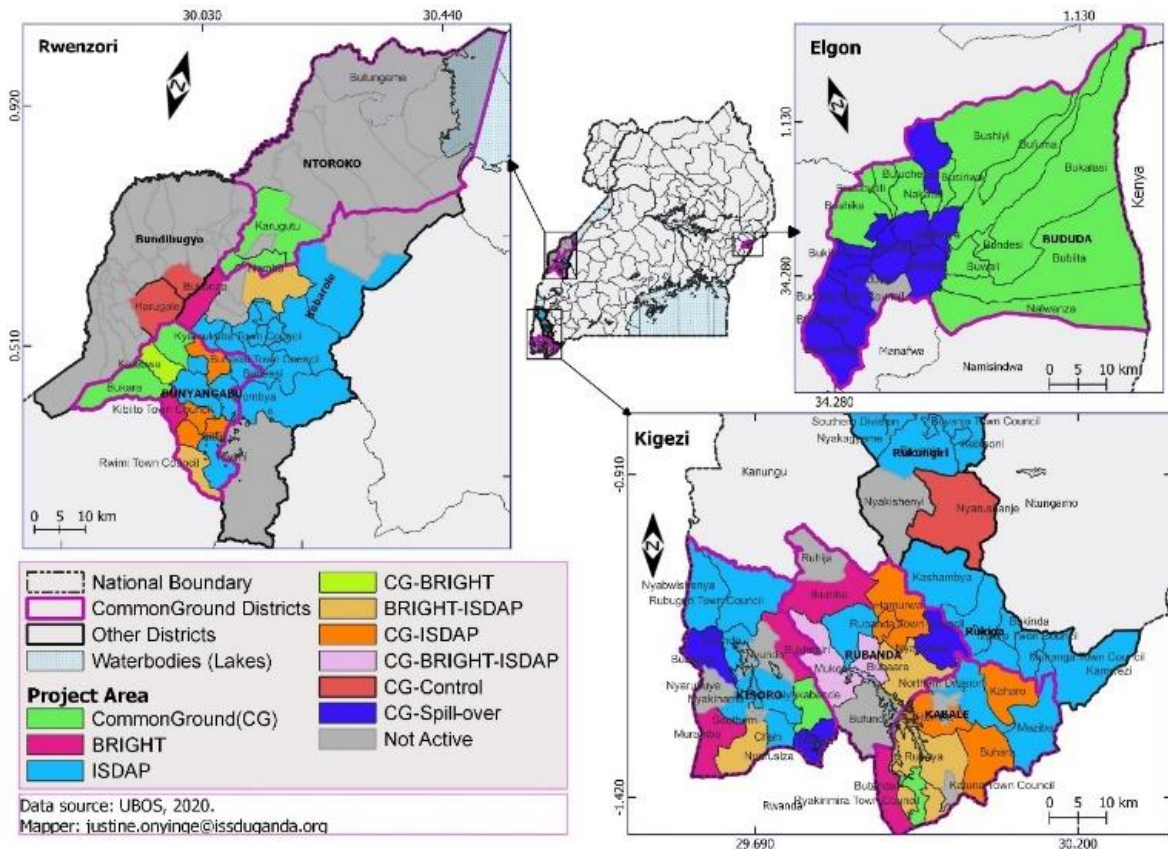


Figure 11: Maps showing areas of operation for EKN-funded projects including CommonGround

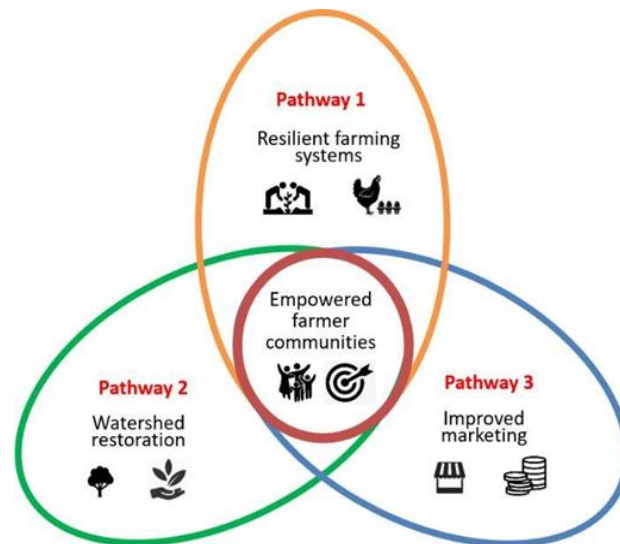


Figure 12: CommonGround pathways towards impact

### Key accomplishments

The project concluded its second year which was characterized by the introduction of the PIP approach to households and targeted communities in the Rwenzori and Kigezi region. The project took on the Elgon region midway through the financial year hence most activities in this location were operations-related. Overall, the project successfully initiated various activities under all the intermediate outcome areas for Pathway 1. These were the foundational activities and the completion of some of them determined the implementation of activities in the other two pathways. The initiated pathway one activities included

- Creation of visions and action plans with 306 PIP trainers (PIs)
- Establishment of 319 integrated plot (IPPs)
- Development of draft community visions for 24 target villages
- Assessment of community action plans for possible investment by the project
- Selection of schools (8) which are to be supported in promoting environmental protection

Execution of pathway two and three activities was slower over the year for the reason given above. Under this pathway, the project implemented a few activities related to the i) supporting restoration site landowners in the development of site visions and action plans; ii) training tree nursery groups on tree nursery management and iii) development of sub-watershed visions and action plans in all eight target sub-counties. The project made the least progress under pathway three also because various interventions needed to be first re-aligned to community needs and the funder's expectations before implementation could actively begin e.g. development of the pathway investment plan. Nevertheless, the project team engaged communities in prioritization of marketing bottlenecks within each sub-watershed which information guided the project's community investment plan. The project also implemented some pathway foundational activities like profiling of Village Savings and Loans Associations (VSLAs) and entrepreneurial groups to be supported. For the interventions to VSLAs and entrepreneurial groups, the project additionally initiated a partnership with Agriterro Uganda for technical support.



**Figure 13:** A tree nursery group was supported with tools to aid in set up of their tree nursery

## 2.4. Support generation of evidence-based innovations in the seed and food systems

Generating evidence-based innovations in seed and food systems offers benefits of enhancing productivity, increasing sustainability, resource optimization, systems resilience, providing ground for decision-making and policy change, scaling of innovations and competitiveness. In the concluded period, ISSD engaged in consultancy work in the form of assessments and a field trial to contribute to this objective.

### 2.4.1. Farming systems assessment in Eastern Uganda for the SNV CRAFT Project

The Climate Resilient Agribusiness for Tomorrow (CRAFT) project is a five-year initiative funded by the Netherlands Ministry of Foreign Affairs and implemented by Stichting Nederlandse Vrijwilligers (SNV) in Uganda,

Kenya, and Tanzania. CRAFT aims to increase the availability and accessibility of climate-resilient food for the growing populations in East Africa. It was therefore essential for SNV to assess the farming systems and their components to create a roadmap to improve food security, climate resilience and livelihoods in the project sites of Eastern Uganda (Bukedea, Mbale, and Kween).

The farming system assessment was undertaken to gather evidence on sustainability and resilience in various farming systems and understand its impact on the scaling of climate-smart agriculture interventions disseminated through the project. It also evaluated the efficient use of natural resources such as land, water, and energy, and generated sustainable management strategies. Market linkages, income diversification, and gender roles within the farming systems are analysed and strategies for gender-responsive development are proposed.

Quantitative data collection involved a household-level survey conducted among smallholder households using the adapted Rural Household Multi-Indicator Survey (RHoMIS). Meanwhile, qualitative data collection involved 14 focus group discussions (FGDs) with selected community members for a contextualized understanding of the farming systems, local challenges, and opportunities. ISSD Uganda implemented the FGDs using the Four cell analysis and the Visioning and Back Casting tools. In addition, 28 key informant interviews (KIIs) were conducted to acquire specialized insights, expert knowledge, and a broader understanding of the agricultural landscape, policies, challenges, and opportunities in the target regions. Household data was collected from 356 respondents in three districts: Bukedea, Kween and Mbale districts, respectively.

#### Key reflections from the assignment

The assessment generated district-specific and general recommendations which could contribute to a more sustainable and resilient mixed crop-livestock farming system in each location. These recommendations ensured to address issues of economic viability, environmental conservation, soil health, and livestock well-being. The study provided several insights into the current state of sustainability and resilience in the CRAFT-supported farming systems. The diversity of smallholder farmer types both posed challenges and provided opportunities for tailored interventions. The search for optimal solutions followed the Describe, Explain, Explore and Design (DEED) cycle. Most importantly, community stewardship should be the focus of sustainable intensification instead of incentivized adoption of conservation practices. CRAFT could contribute to the resilience and prosperity of farming systems by prioritizing integrated and sustainable farming practices.

#### 2.4.2. Study on the Rice Seed Value Chain in Uganda under the JICA PRiDe II Project

Japan International Corporation Agency (JICA) has supported the rice sub-sector in Uganda through various technical and grant cooperation projects since 2004. The rice projects implemented between 2004 and 2011 focused on increasing interest in upland and lowland rice production. These subsequently ushered in the Promotion of Rice Development (PRiDe) projects. The first and second phases of PRiDe boosted rice productivity in lowland and upland ecologies by enhancing the linkages between research and extension. Like other development projects mentioned earlier, JICA is interested in promoting QDS production through the LSB approach and its own Musomesa Field Schools (MFS) approach. Hence, JICA commissioned ISSD Uganda to provide information on Uganda's rice seed value chain relevant to implementing PRiDe III.

The study aimed to i) assess the legal, regulatory, and institutional frameworks affecting the development of QDS system for rice; ii) study rice seed producers in the West Nile and the Eastern Regions; iii) assess the functionality of the seed testing laboratory at Ngetta ZARDI, and iv) provide recommendations for establishing a new seed testing laboratory at Abi ZARDI.

The rice seed value chain study covered six districts across the two regions i.e. Bugweri, Butaleja, and Namutumba in Eastern Uganda, and Koboko, Maracha, and Yumbe in West Nile. These regions represented typical lowland and upland ecologies for rice production. Data collection through face-to-face interviews (191 farmers), FGDs (36 sub-groups), and KIIs with farmers, technocrats, input dealers, and traders (50). The study utilized tools including

a digitized semi-structured questionnaire, four-cell analysis, problem tree analysis, stakeholder mapping, cropping calendar and KII checklists. The study recommended several interventions that JICA could focus on at each stage of the rice value chain, with a clear breakdown of what is achievable in the short-term, mid-term, and long term.

### 2.4.3. Trials to assess the effect of Trianum-P on tomato performance

Trianum-P is a biological crop protection agent derived from the soil dwelling fungus *Trichoderma harzianum* T-22. It provides an eco-friendly and sustainable solution to a range of soil borne diseases such as *Pythium* spp., *Rhizoctonia* spp., *Fusarium* spp., *Sclerotinia* spp., and *Microdochium* spp. The product also promotes plant growth and uniformity through improved root system development, and nutrient uptake. This effect is stronger when the plant is under stress and/or cultivated under less than optimum growing conditions.

Koppert Biological Systems, WUR, East-West Seed and Knowledge Transfer (EWS-KT) and ISSD Uganda have partnered to conduct a trial to assess the effect of Trianum-P on the yield of tomatoes and sweet peppers. Twenty farmers in Luwero, Kayunga, Mityana and Mukono districts (central region) enlisted to host the field trials. Selected farmers received training on agronomic practices to effectively manage the treated and non-treated plots during the 2024 first cropping season.

#### Major observations and reflections

Trial plots that were treated with Trianum had more plants per unit areas which led to higher overall yields than the untreated ones. On the other hand, production per plant was only slightly higher for the Trianum treated plots than the non-treated ones. During the trial, *Tuta absoluta* pest and Bacterial wilt diseases wiped out six of the 20 fields established since no chemical was applied to control them. Moving forward, additional trials were proposed depending on the availability of funds and these should utilise plant protection strategies like Tutasan which controls the *Tuta absoluta* pest.



Figure 14: A bounty harvest for one of the farmers that used Trianum

## 3. Organization functioning and financial sustainability

ISSD Uganda attained the rebranded NGO status after completing the requisite registration process with the NGO Board. This accomplishment marks a significant milestone in the organization's evolution, underscoring its commitment to legal and institutional frameworks. In addition, the organization has proactively applied for tax exemption, further illustrating its dedication to regulatory compliance and operational transparency. This is essential for navigating the tax complexities associated with NGO operations in Uganda.



### **3.1. Strengthening governance and management structures**

ISSD Uganda identified the need for agile management structures capable of swiftly adapting to changing circumstances and challenges within the operational landscape. These evolving operational needs laid the foundation for significant structural adjustments to better align with the multi-faceted nature of new initiatives, such as the CommonGround. This restructuring entailed a significant emphasis on clarifying reporting lines, as it was vital to delineate the hierarchical relationships and the flow of information within the organization. Additionally, the organization took substantial steps towards operationalizing its board. The composition of the board is as follows: Dr Bonny Ntare (Chairman), Dr David Kalule Okello, (Subject Matter Advisor), Mr William Were (Legal and Compliance Advisor), and Ms Phina Kamanyire (Finance and Administration Advisor). This initiative was fundamental in ensuring that the board consistently fulfilled its oversight responsibilities, a development that marked a significant achievement within the organization's operational framework over the past year. Ensuring effective governance by the board not only enhanced accountability but also reinforced the organization's commitment to transparent and responsible management practices.

### **3.2. Improving operational processes**

ISSD Uganda established an independent human resource (HR) function designed to bolster essential aspects of human resource management, including performance management, recruitment, and the systematic review of a variety of policies and procedures. This independent HR function is pivotal in fostering a culture of excellence and accountability throughout the organization. Delegation of the recruitment process ensures that the selection of candidates is conducted with impartiality and professionalism. This change has been instrumental in enhancing the quality and integrity of the hiring process. The robust HR function is critical as the staffing has grown from a mere 8 founder members to now 53 dedicated staff. Furthermore, comprehensive reviews have been conducted on several crucial policies to ensure compliance with current employment laws. Notable revisions include the HR manual, which outlines the organizational standards and expectations for employee conduct and performance; the Procurement and Disposal of Assets Manual, which details the procedures for acquiring and managing organizational resources; and the Transport Manual, which governs the use and maintenance of transportation assets within the organization. These policy updates reflect a commitment to aligning operational practices with legal requirements and best practices, thus enhancing the overall functionality of ISSD Uganda.

### **3.3. Increase ISSD brand visibility and awareness**

A series of strategic initiatives have aimed to increase visibility and engagement with diverse stakeholders. One of the primary initiatives to enhance online presence involved the launch of a revamped website ([www.issduganda.org](http://www.issduganda.org)), which features a more user-friendly interface and an enriched repository of information. New features are intended to offer visitors easier access to resources, initiatives, and news. In conjunction with this, the organization has integrated its communications with various social media platforms, including Facebook, LinkedIn, YouTube and X. The adopted systematic approach to social media engagement ensures that published content remains relevant but also fosters continuous interaction and dialogue with intended audience. In addition, CommonGround monthly newsletters are a vital tool for keeping stakeholders informed about ongoing developments, insights, and achievements within the project.

### **3.4. Identifying, developing and diversifying revenue base for anticipated growth**

The recent shift in donor priorities has led to considerable budgetary reductions by various funding organizations, significantly impacting the operational capabilities of many entities reliant on these financial resources. These developments meant ISSD Uganda had to adopt a more proactive approach to identify viable funding prospects that may not traditionally align with historical funding sources. A decisive step to recruit a full-time Business Development and Research Manager tasked to identify potential funding sources, develop compelling proposals, and establish meaningful relationships with funders. Throughout the 2023/24 period, ISSD Uganda responded to seven (7) calls for proposals (Table 7). This underscored a commitment to sustaining and enhancing impact within

the agricultural sector, despite the challenging funding environment. However, only the proposal submission focusing on the Rice Seed Value Chain in Uganda succeeded. This limited success can primarily be attributed to the lack of a diverse range of technical capacities necessary for effectively competing in the grant bidding process.

It is imperative to strengthen the capabilities of relevant staff members through comprehensive training programs focused on technical writing and innovative proposal development. Additionally, ISSD Uganda should consider soliciting the expertise of external professionals who possess specialized knowledge and experience in applying for competitive grants. By doing so, the organization can enhance the quality and competitiveness of its proposals, thereby increasing the likelihood of securing funding in future endeavours.

**Table 7:** Resource mobilisation efforts made over the year

<b>Funder</b>	<b>Title of submission made</b>	<b>Grant size</b>
<b>IKI</b>	Enhancing Adaptive Resilience of Commodity Markets in Northern Uganda	EUR 209,835
<b>NORAD</b>	Enhancing Sustainable Food Systems and Agricultural Productivity in West Uganda	NK500,000
<b>REDAA</b>	Promoting Community Stewardship and Multi-Stakeholder Engagement for Climate Change Resilience and Sustainable Rangeland Management in Karamoja	£500,000
<b>JICA</b>	Study of Rice Seed Value Chain in Uganda	\$27,000
<b>YALI</b>	The Uganda Horticulture Sector Transformation Project (HortiTRANSP)	\$450,000
<b>Enabel</b>	Skilling for Youth in Rwenzori for Climate Smart Agribusiness	\$350,000
<b>ABi</b>	Promoting Climate-Smart Agriculture for Sustainable Livelihoods in East Uganda	\$770,000

### 3.5. Improving financial integrity and accountability assurance

ISSD Uganda maintains a comprehensive financial management system that optimizes efficiency across all operational areas. It prioritizes financial integrity and accountability by tracking and reporting to reinforce the culture of responsibility and ethical behaviour. It also embraces innovation to enhance financial management. The commitment to excellence drives constant refinement and improvement of processes to support the broader organizational mission. These core values underpin a robust and agile financial management system that can adapt to the dynamic challenges and demands of the operational landscape.

The financial manual was updated to ensure compliance with recommended fiscal practices and standards. The Tally ERP Accounting package is the foundation for maintaining organized accounts across ISSD Uganda. The system streamlines financial processes and improves communication and reporting across various operational units. The finance teams work diligently to ensure prompt retirement of activity advances and ensure compliance with laws and regulations by submitting statutory returns, including obligations to the Uganda Revenue Authority (URA), National Social Security Fund (NSSF), and withholding tax (WHT) in a meticulous and timely manner.

Furthermore, a robust control system is another critical aspect of financial management strategy. The organization has a reliable internal control system to ensure rigorous reviews, verification, checks, and authorization of financial payment processes, necessitating multiple levels of oversight. This multi-tiered approach involves stringent controls such as cashless transactions to reduce the risks of handling cash. Three distinct financial processes happen before any bank transaction: initiation, first approval, and final approval.

An independent and approved audit firm conducts an external audit at the end of the financial year, ensuring compliance with recognized accounting standards in Uganda. Confidentiality and the proper disclosure of relevant material are also given significant attention within the organization. ISSD Uganda takes concrete steps to maintain the confidentiality of sensitive information, such as securing financial records under lock and key and granting

access only upon permission. To bolster its commitment to personal data protection, the organization attained a certificate for personal data protection, which imposes an obligation on ISSD Uganda to safeguard personal information diligently.

## 4. Financial Overview

### 4.1. Reporting procedures

ISSD Uganda aims to uphold its reputation for financial stewardship and operational integrity within the non-profit sector. The financial statements are based on the historical cost convention, which is a well-established accounting method of asset and liability valuation that mitigates the risks associated with market fluctuations.

The Generally Accepted Accounting Principles (GAAP) used are recognized as the authoritative framework for reporting, ensuring that the company's accounting practices are consistent, transparent, and reliable. Furthermore, ISSD Uganda adheres to its own accounting policies and complies with the stipulations outlined in the NGO Act of 2016. This dual compliance not only reinforces the integrity of financial reporting but also aligns with the broader regulatory landscape governing NGOs in Uganda.

Uganda shilling (UGX) is the functional currency used in all financial documentation and operational activities. However, some donor requirements necessitate producing financial reports in the currency stipulated by the terms of the funding agreements. This underscores the organization's responsibility to ensure that the financial narratives presented to donors and other stakeholders are precise, accountable, and reflective of the actual financial position and performance.

### 4.2. Balance sheet

Balance sheet presented in Table 7 provides stakeholders with a clear understanding of the ISSD Uganda's financial position by detailing essential components such as the balance sheet, which outlines the assets, liabilities, and equity. This structured assessment is crucial for informed decision-making and strategic planning moving forward.

**Table 8:** Balance sheet

Balance Sheet	Amount (UGX)
<b>Current Assets</b>	
Cash-in-Hand	5,973,929
Bank Accounts	3,748,421,813
Accounts Receivable	1,378,629,433
Total Current Assets	5,133,025,175
<b>Liabilities</b>	
Reserves & Surplus	207,199,092
Accruals	45,000,000
Project Advance Incomes	4,739,021,559
Payroll Payables	139,297,274
Other Payables	2,507,250
Total Liabilities	5,133,025,175
Shareholder's Equity	-
Total Liabilities and Equity	5,133,025,175

#### 4.2.1. Current Assets – Cash and cash equivalents, and receivables

Assets are accounted for as expenditures when acquired, which implies that the financial statements prepared at the end of the fiscal year do not accurately represent the fair market values of the fixed assets owned by the organization. This approach results in an underrepresentation of the organization's wealth and resource base on the balance sheet. To address this discrepancy, ISSD Uganda diligently keeps comprehensive records of all assets, both those acquired through purchase and those received as donations. Such record-keeping enables ISSD Uganda to maintain an accurate overview of its asset base, despite the immediate recognition of asset purchases as expenses in the financial records.

Cash and cash equivalents encompass not only physical cash held by the organization but also funds that are readily accessible in the form of deposits that can be withdrawn on demand from banking institutions. Furthermore, bank overdrafts, which represent short-term borrowing arrangements allowing the organization to withdraw more money than is available in its bank accounts, are classified as part of current liabilities within the borrowings section of the statement of financial position. This classification is critical for providing stakeholders with a clear view of the organization's liquidity position and its capability to meet short-term financial obligations.

Receivables arise from agreements related to project implementation, are recognized at their fair value. This recognition ensures that receivables are reported in a manner that reflects their true economic value, facilitating a more accurate assessment of the company's financial health. To safeguard against the risk of non-collection, a provision for impairment of trade receivables is established. This provision is activated when there is objective evidence suggesting that the company may not be able to collect the full amounts due from its clients in accordance with the original terms established in the agreements. Such prudent financial management measures are essential for maintaining the integrity of the organization's financial statements and ensuring that stakeholders have a realistic understanding of the entity's receivables and potential risks associated with them.

#### 4.2.2. Liabilities - Accounts Payable, Accruals and Deferred Income

Liabilities are recorded initially as soon as there exists a legal or constructive obligation that binds ISSD Uganda to associated expenditures. This ensures that all potential commitments are accounted for in a timely manner, providing an accurate picture of the financial obligations.

Accounts payable represent a critical component of ISSD Uganda's financial structure and are classified as current liabilities based on the timeframe within which payment is expected. Explicitly, accounts payable are categorized as current liabilities if the payment obligation is due within one year or less. In cases where the normal operating cycle exceeds one year, accounts payable are also classified as current liabilities if the payment is due within that operating cycle. Conversely, if the payment is not expected to be settled within the one-year timeframe or the operating cycle, those obligations are reported as non-current liabilities on the financial statements.

Accruals play an essential role in the accurate representation of the organization's financial performance. This necessitates the recognition of expenses in the same accounting period in which they are incurred, rather than when they are paid. For instance, expenses related to external audits must be recognized in the period they are applicable, irrespective of when the payment is processed. This matching principle ensures that financial statements reflect the true economic activities of the organization within a specified time frame.

Moreover, deferred income is acknowledged as a liability on the balance sheet, reflecting funds that have been received in advance for projects or services not yet delivered. This is often seen in situations where an organization has received contributions or grants but has not yet fulfilled its obligations to the donor. Consequently, the recognition of deferred income represents an accountability commitment to the donor, as the organization has an obligation to utilize the funds as stipulated and report on their usage. In summary, both accruals and deferred income are vital elements within the liability classifications that serve to enhance the transparency and accuracy of a company's financial reporting.

### 4.3. Revenues and Expenditures

Receipts received from donors and grants are duly recognized in the income and expenditure account in a manner that is systematic and methodical over the periods corresponding to when the organization incurs relevant expenses. The accrual basis of accounting recognizes expenses as incurred regardless of whether cash has been exchanged at that time. All expenditures are classified under specific headings that aggregate costs based on the activities associated with them. This systematic classification allows for more detailed financial analysis and aids in the assessment of operational efficiency and effectiveness. Moreover, transactions conducted in foreign currencies throughout the fiscal year are converted into UGX, which is the functional currency. This conversion occurs at the prevailing exchange rates that prevail on the dates when the transactions take place, ensuring that the financial reporting accurately reflects the value of these transactions in the local currency.

**Table 9:** Expenditure analysis by project and category

Project/Category	Amount (UGX)
<b>CommonGround</b>	8,896,271,405
<b>CRAFT (H)</b>	843,175,585
<b>HortiMap (B)</b>	346,119,867
<b>Overheads (A)</b>	1,217,414,992
<b>JICA (I)</b>	101,330,949
<b>NURI (D)</b>	40,241,130
<b>SEEDNL (G)</b>	197,472,175
<b>STTS (F)</b>	81,130,000
<b>Total Expenditures</b>	11,722,156,103

## 5. Our partners and funders

In the financial year 2023/24, ISSD Uganda maintained its longstanding relationship with the Embassy of the Kingdom of the Netherlands (EKN), Wageningen University & Research (WUR), Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and National Agricultural Research Organisation (NARO). The organization also nurtured new partnerships with prominent international organizations like the Danish International Development Agency (DANIDA), the Japan International Cooperation Agency (JICA), Stichting Nederlandse Vrijwilligers (SNV), and the Centre for Agriculture and Biosciences International (CABI). The newly expanded network also includes the Koppert Foundation and SeedNL. The collective focus on improving seed systems and enhancing seed access aims to support farmers in achieving greater productivity and resilience in their agricultural practices, reinforcing its role in advancing innovation and policy reform in Uganda.



Figure 15: Our partners





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