SEED SYSTEMS GROUP

Because *All* Farmers Deserve Good Seed

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Annual Report 2024

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SSG Vision

Seed Systems Group is driven by the belief that an Africa free from hunger is achievable in our lifetime.

SSG Mission Statement

Seed Systems Group (SSG) is an African-based non-profit, technical assistance organization headquartered in Nairobi, Kenya and Lomé, Togo. SSG's mission is to ensure that every farmer across Africa has access to affordable, high-quality seed for a wide range of nutritious food crops.

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Acronyms

AGRA	Alliance for a Green Revolution of Africa
AID-I	Accelerated Delivery Initiative
BCDC	Banque Commercial du Congo
CBO	Community based organization
CCUD	Consortium des Congolais Unis pour le Développement
CERD	Djiboutian Centre for Studies and Research
CESSA	Center of Excellence for Seed Systems in Africa
CGIAR	Consortium of International Agricultural Research Centers
CICI-ESA	Center of Innovation for Crop Improvement for East and Southern Africa
CIMMYT	International Maize and Wheat Improvement Center
CNRA	Centre National de Recherche Agronomique de Côte d'Ivoire
COPAGL	Agricultural and Livestock Cooperative
CORAF	Central African Council for Agricultural Research and Development
CSIR	Council for Scientific and Industrial Research
DAES	Department of Agricultural Extension Services
DAF	Directorate of Agriculture and Forestry
DARS	Department of Agricultural Research Services
DRAE	Direction Régionale de l'Agriculture et de 'Elevage
DRC	Democratic Republic of Congo
EGS	Early Generation Seed
EPH	Espoir Pour l'Humanite
FAO	Food and Agriculture Organization
FIFAMANOR	Fiompiana Fambolena Malagasy –Norveziana
FIPS	Farm Inputs Promotions Africa
FOFIFA	Centre National de Recherche Appliquée au Développement Rurale
FOPAKOR	Fédération des Organisations Paysannes du Kasaï Oriental
GAL	Grant agreement letter
ICAT	Institut de Conseil et d'Appui Technique
IDRC	International Development Research Centre
IGAD	Intergovernmental Authority on Development
ILCI	Innovation Lab for Crop Improvement
ISRA	Institut Sénégalais de Recherches Agricoles: Accueil
IITA	Institut International d'Agriculture Tropical
INERA	National Institute for Agricultural Studies and Research
IRRI	The International Rice Research Institute
ISABU	Institut des Sciences Agronomiques du Burundi
ITRA	Institut Togolais de Recherche Agronomique
KALRO	Kenya Agricultural Research Organization

LACOME	La Congolaise des Mines et Environnement
MoAI	Ministry of Agriculture and Irrigation
MoFA	Ministry of Food and Agriculture
NARS	National Agricultural Research Stations
NEMA	National Environmental Management Authority
NGO	Non-governmental organization
OPV	Open Pollinated Variety
PAM	Programme Alimentaire Mondial
PBR	Plant Breeder Right
RESOPP	Réseau des Organisations Paysannes Et Pastorales du Sénégal
SARI	Savanna Agricultural Research Institute
SARL	Société à Responsabilité Limitée
SeedSAT	Seed System Assessment Tool
SDC	Swiss Agency for Development and Cooperation
SEDAB	Sahélienne d'Entreprise de Distribution en Agro Business
SENAFIC	Service National des Fertilisants et Intrants Connexes
SENASEM	Service National de Semences
SFF	Sall Family Foundation
SIDA	Swedish International Development Cooperation Agency
SLARI	Sierra Leone Agricultural Research Institute
SNV	Service National de Vulgarisation
SPEED	Supporting Policy Environment for Economic Development
SSG	Seed Systems Group
SSSRI	Somalia Seed Systems Recovery Initiative
SSU	Seed Services Unit
TASAI	The African Seed Access Index
UNPSB	National Union of Cooperative Societies of Seed Producers of Burkina
UPAL	Union des Producteurs Agricoles de la Lukula
USAID	United States Agency for International Development
VACS	Vision for Adapted Crops and Soils
VBA	Village-Based Advisor
WFP	World Food Program

Message from Board Chair

I would like to congratulate everyone involved in Seed Systems Group – from its staff to its supporters to its many partners on the ground – on the many objectives that were achieved over the course of 2024. By the end of 2024, SSG was operating field-level activities in 15 countries with prospects of further growth on the horizon in 2025. This in itself is an achievement, as SSG's presence in any country ensures that the most critical farming technology – the seed – will be receiving more attention from public researchers, reaching more farmers, occupying the minds of decision-makers, and forming the focus of more local business interests.

In today's world, the need for more and better seed unites all countries where agriculture is practiced. As the world's population continues to grow, so does the need for seed. And as we become more conscious of the environmental impact of farming, the more we realize that improved seed which allows farmers to produce more food, more sustainably, on less land becomes an imperative. It is why I view the ability of farmers to have access to improved seed as almost a human right. Seed is just that important.

For far too long, the seed needs of farmers in some of Africa's lesser-known countries remained an ignored problem. Perhaps it was the novelty of the progress being made in the more mainstream countries that obscured the issue. Perhaps the funding was simply insufficient to reach all corners of our vast continent. But the successes achieved in bringing the power of improved seed to farmers in the first round of countries (documented by the CGIAR, AGRA, and the press) eventually brought to light the question of the countries SSG is now focused on. It is indeed gratifying to see that similar results to those achieved in Kenya, Uganda, Tanzania, and Ghana can likewise be obtained in countries like Togo, South Sudan, Eritrea, Somalia, Burundi, and DR Congo.

Events of the past several months have put international assistance for overcoming hunger and poverty in the spotlight, with some even questioning whether such investments are justified or effective. In these times, it is good to remind ourselves of what kind of world we would be living in if there had been no Green Revolutions in other parts of the world. Between the mid-1960s and 1989, cereal yields in developing countries increased from 1.4 to 2.7 tons per hectare, and total cereal production nearly doubled, according to FAO. In fact, in India alone, it is estimated that higher-yielding seed helped save between 22 and 43 million hectares of wild lands from being converted into agricultural land.

It is common knowledge that Africa's farmers missed out on the first wave of yield-enhancing technologies. However, in 2007, The Rockefeller Foundation published a document entitled "Africa's Turn: A New Green Revolution for the 21st Century" and teamed up with The Gates Foundation to establish the Alliance for a Green Revolution in Africa (AGRA). I had the honor of serving as AGRA's president for its first five years of operation and have followed the progress achieved in the AGRA program countries ever since.

Then, as now, the primary focus was on getting farmers higher-yielding seed, and the results have not disappointed. Yields of many crops increased significantly as the result of providing farmers with access to better seed, and rates of child malnutrition have decreased in areas where AGRA intervened. But AGRA's program area was limited to 11 countries, which by 2018

were producing approximately 120,000 metric tons of seed annually.

In 2019, we established Seed Systems Group with the aim of bringing the benefits of improved seed to farmers in 15 countries where farmers still had no dependable access to this critical technology. The following report documents the progress the SSG team has made since then, with particular focus on projects conducted in 2024, which I believe is quite impressive.

I invite you to take a look and hopefully feel inspired to become part of our drive to serve the needs of the farmers of these previously left-behind countries. Because every farmer, no matter where they may live, deserves the benefits of good seed.

Namanga Ngongi
Chair, Seed Systems Group

Message from President

2024 was something of a breakout year for Seed Systems Group. In fact, the pace at which our mission advanced over the course of the year was almost breathtaking. We initiated seed production and delivery systems activities in six new countries - Cote d'Ivoire, Ghana, Guinea-Bissau, Kenya, Sierra Leone, and Senegal – and resumed activities in four others – Djibouti, Eritrea, Somalia, and South Sudan – which had been paused due to lack of funds. At the same time, our on-going work in Burundi, Madagascar, DR Congo, and Togo deepened significantly, and began to achieve scale. I'm happy to report that our dedicated teams of seed systems and operations specialists based in Nairobi and Lomé dug into their work as never before and performed admirably.

The common thread linking all these countries and regions is that their farmers lack access to the most critical factor for making their work productive and profitable: seed of improved crop varieties. As a result, living conditions for them and their families are characterized by food insecurity, poverty, and a lack of choice. They are not, however, lacking in hope for a better future. Throughout our program area, farmers, government officials, and seed practitioners alike have invariably leaped into action in response to SSG's initiative.

Making improved seed available to farmers through durable supply chains can change their lives forever, for the better. This forms the mission of SSG, and we feel privileged to pursue such meaningful work.

In my long experience of talking with farmers about their livelihoods, there have been two broad categories of conversation: brief and long. The brief conversations, usually brought to a polite ending by the farmers themselves, focus on broad topics like crop management, soil fertility, or the rains. The long conversations, the ones farmers have almost unlimited time for, are about the seeds they plant. Arrive at a farmer's home and say you want to talk about the seed they're planting, and they will look for chairs. This conversation is going to take a while.

Choice of seed and the nature of the crop variety it produces goes to the heart of what the farming enterprise is all about. Get that choice right, and it's an exciting undertaking, able to bring life and new hope to all around. Get it wrong and potentially face disaster. Seed is serious business. SSG's scientists know that when we begin work in a new country, our knowledge of which varieties could be useful to farmers – and how to produce the seed of those varieties – often holds the key to success or failure.

Over the course of 2024 our teams held those conversations with farmers and crop scientists in locations as far-flung new as Ferkessedugu, Cote d'Ivoire, Contuboel, Guinea-Bissau, Wau, South Sudan, and Kitui, Kenya, focused on new varieties of crops as diverse as rice, maize, cowpea, beans, pigeon pea, sorghum, and pearl millet. In each new context where SSG operates, we focus on the main crops farmers grow to feed themselves and their communities.

Aiding our efforts is the fact that after major, long-term investments in crop breeding, many of Africa's agricultural research stations are full of new varieties. Multiple promising choices exist for virtually every crop and agro-ecology in Africa. The disappointing reality, however, is that building seed production and delivery systems so that farmers can make use of this research still remains a largely neglected field.

While farmer access to good seed may not rank

highly as a topic of conversation in international circles, in rural regions of Africa it is a top priority. The stories from successful agriculture initiatives that were powered by improved seed have energized our partners in countries that were left behind in the first generation of seed initiatives. As a result, our work is powered by local motivation to act on the problem of farmer access to seed.

The pages that follow document what we were able to achieve with the support of our donors. From the 268 variety trials, to the official release of 63 new crop varieties, to the 4,245 tons of certified seed produced, to the nearly 5,000 Village Based Advisors trained, to the more than 850,000 farmers whose lives were improved by accessing new seed this is a story of how the world is being made a better place for some of the planet's most marginalized people. It stands in stark contrast to the bulk of the world's headlines and reminds all of us of what we are capable of when we put our minds to it and are given the support we need.

Throughout 2024, SSG's seed specialists worked side-by-side with the dedicated farmer outreach professionals from FIPS-Africa, whose collaboration we deeply appreciate. Similar to SSG's focus on seed systems, FIPS has made the realm of farmer outreach into a science, constantly searching for ways to be relevant to farmers' needs. The SSG/FIPS partnership allows our crop breeders and seed production experts to translate their insight on crops into real-life benefits for hundreds of thousands of farmers.

If you are part of the dedicated and faithful group of people who support our work, we welcome you to peruse the following pages and see the progress your support has facilitated. We look forward to your feedback and constructive criticisms. If you are new to SSG and the topic of seed systems development, we likewise welcome you to this endeavor to improve lives and livelihoods among Africa's farmers from the ground upward.

Wishing you a positive and rewarding remainder of 2025!

Joe DeVries
President, Seed Systems Group

Executive Summary

In 2024, Seed Systems Group (SSG) continued its mission to strengthen seed systems across Africa, expanding operations and deepening its impact in multiple countries. SSG worked with public and private sector partners to improve access to high-yielding, climate-resilient seeds, enhancing food security, nutrition, and farmer livelihoods. Key focus areas included variety development and testing, seed enterprise development, farmer awareness, seed marketing, and policy advocacy.

As of December 2024, SSG has cumulatively achieved the following major milestones:

- Conducted **268 variety trials**, resulting in the release of **63 improved varieties** of key food crops.
- Facilitated production of over **4,245 MT of certified seed** (produced by 48 local seed companies, including 12 led by women seed entrepreneurs) and **64 MT of early generation seed**, ensuring a sustainable supply of quality seed.
- Reached over **851,393 farmers** with **1.9 million small seed packs**, promoting the adoption of improved crop varieties.
- Supported the recruitment of **4,929 Village-Based Advisors** (VBAs) to facilitate localized seed distribution and farmer education.
- Collaborated with governments and stakeholders to identify and address policy bottlenecks, enhancing the regulatory environment for seed sector growth.

Activities in 2024 included the following Key projects:

- **Inclusive Seed Systems Development (Burundi, Côte d'Ivoire, Sierra Leone, Togo):** AGRA-funded initiative accelerating the adoption of climate-resilient seed varieties.
- **Accelerated Innovation Delivery Initiative (AID-I) (DRC-South Kivu & Haut-Katanga, and Burundi):** USAID-supported project boosting hybrid maize and improved bean seed production and commercialization.
- **Farmer-Driven Assessment of Climate-Resilient Crop Varieties and Downstream Impacts for Improved Food Systems (Madagascar and Togo):** IDRC-funded project to enhance food security and nutrition and increase income of smallholder farmers.
- **Enhancing Cowpea Production and Adoption Among Smallholder Farmers (Malawi):** ILCI-funded initiative to promote adoption of three improved cowpea varieties.
- **Somalia Seed Systems Recovery Initiative:** World Bank-funded effort to strengthen Somalia's seed sector.
- **Vision for Adapted Crops and Soils (VACS) (Ghana, Kenya, Senegal):** USAID-supported program promoting six climate-resilient 'opportunity crops.'
- **Sustainable Seed Systems for Drought-Response (Horn of Africa):** IFAD-funded initiative addressing seed shortages in drought-prone regions.

Despite notable successes, SSG faced challenges, including funding delays, erratic rainfall, logistical constraints, and seed supply bottlenecks. Key lessons include the importance of timely funding disbursement, climate-smart crop selection, enhanced coordination with partners, and farmer-centric marketing strategies.

In 2025, SSG anticipates continued expansion, with new funding prospects from the World Bank, African Development Bank, World Food Programme, and other partners. Efforts will focus on strengthening VBA networks, scaling seed enterprise development, and expanding farmer outreach programs to ensure broader access to quality seeds across Africa.

Seed Systems Development Initiatives in 2024

1. Inclusive Seed Systems Development for Burundi, Cote d'Ivoire, Sierra Leone & Togo

The project aims to contribute to food security, nutrition, and income for smallholder farmers of Burundi, Cote d'Ivore, Sierra Leone, and Togo through seed system strengthening. The project is funded by AGRA in the amount of US$1.5 million for a period of 1.5 years beginning November 2023 to June 2025.

The key deliverables of the project include:

a. Link 4 NARS breeders to One CGIAR to access new climate-smart and nutrient-dense varieties of major staple crops for evaluation and release in their respective countries.

b. Training and capacity building of 4 NARS, 12 seed companies, and 60 agro-dealers

c. Recruit and train 1000 VBAs.

d. Support farmer awareness creation activities through demonstrations such as the distribution of 960,000 small seed packs by VBAs to farmers assessing variety performance in their localities.

e. Production of 100 MT early generation seed.

f. Production of 3,000 MT certified seed.

g. Training 48 seed company personnel.

h. Hold 16 meetings with government officials to address policy bottlenecks.

Project Activities:

One hundred and eighteen (118) newly released maize hybrids from IITA-Ibadan representing four different regional trials, as well as 6 commercial maize hybrids from various seed companies in West Africa (FAGRI, LCIC, and SOPROSA), were used for a maize trial in Togo, Sierra Leone, and Cote d'Ivoire. These hybrids were chosen for

Figure 1: Exbaika rice variety trial in Togo

their high-yield potential, resistance to Maize Streak Virus, Striga, and Fall Army Worms, and their tolerance to drought. Similarly, rice varieties tested in the countries mentioned above were sourced from AfricaRice, IRRI, China, and the National breeding programs of each of these countries. All the trials have been completed except for Burundi. In Cote d'Ivoire, 15 outstanding maize hybrids have been selected for on-farm trials during the 2025-2026 growing season.

a) Identification of popular and productive crop varieties for EGS production and supply

The target for new crop varieties in EGS production is 20, but 34 high-demand varieties in the target countries are being used for EGS production (refer to Table 1), achieving a completion percentage of 155%.

In Burundi, during the 2024 dry season, 500 kg of the male inbred line (AM1911-7, a three-way hybrid maize variety) was produced. Additionally,

Table 1. Summary of the identified varieties per crop used for EGS production

Country	Research Partner	Target Crop	Target Variety
Togo	ITRA	Rice	Ex-Baika
			Chapeau Vert
			Jasmine 85
		Sorghum	Soubatimi
			Sorvato 8
			Sorvato 9
			Pepe Cale
			Sorvato 1
		Groundnut	SH470P
			AMIZI
			AH-CHIN
		Cowpea	NAFI
			KVX
			IT-LOCAL
Sierra Leone	SLARI	Rice	Nerica L19 Sub1
			Rock 34
		Groundnut	SLINUT 2
		Cowpea	SLIPEA 5
			SLIPEA 4
			IFE BROWN
Cote d'Ivoire	CNRA	Rice	IR841
			C26
		Maize	FMB
		Cowpea	ZAM-ZAM
Burundi	ISABU	Maize	AM1911-7
		Beans	RWR54
			Musore
			Kinure
			RWV1272
		Rice	RDT 104
			SECH 151
		Cassava	Nase-14
			Kiroba
			MKUMBA

6 MT of quality early generation seeds for bean varieties (RWR54, Musore, Kinure, and RWV1272) were produced. Production of 10,000 cuttings of improved cassava varieties (NASE-14, KIROBA, and MKUMBA) is ongoing. Meanwhile, seeds of the single-cross female parent of AM1911-7 are being produced on 2.5 hectares by ISABU.

In Cote d'Ivoire, the FMB maize variety, a newly released extra-early maturing OPV, was selected for foundation seed production due to the lack of existing hybrid maize. A two-hectare plot in Ferkessedougou yielded 6 MT. For irrigated and lowland rice, C26 and IR841 were selected for seed production in Man. A nursery was established on November 13, 2024, and seed multiplication is on one hectare per variety.

In Sierra Leone, approximately 1.2 MT of SLINUT 2 groundnut foundation seeds were produced on 4.34 hectares at the Njala Research Center. Foundation seed multiplication for IFE BROWN, SLIPEA 4, and SLIPEA 5 cowpea varieties was conducted on 2.6 hectares. Harvesting took place in early December 2024.

In Togo, approximately 4.9 MT of foundation seeds were produced including rice 990 kg (EX-BAIKA, IR841, and JASMINE 85), sorghum 530 kg (SOUBATIMI, SORVATO 9, SORVATO 8, SORVATO 1, and PEPE-KALE), groundnut 1,800 kg (SH470P, AMIZI, and AH-CHIN), and cowpea1,660 kg (NAFI, KVX, and IT-LOCAL). Parental line multiplication for hybrid maize seeds is ongoing.

b) Production of certified seeds by private seed companies

Twelve private seed companies–four based in Burundi, two in Côte d'Ivoire, two in Sierra Leone, and four in Togo–have been selected and funded to produce a total of 3,000 MT of certified seeds for various crops, including rice, maize, sorghum, groundnut, cowpea, and beans across these four countries. A total of 775 ha has been designated for this initiative.

In Burundi, 3 ha is dedicated to rice production, 30 ha to maize, and 7 ha to beans. SETRACO, one of the partner seed companies in Burundi, planted 5 ha with maize under irrigation in Karuzi Province in August 2024 and this field has been harvested. In Sierra Leone and Togo, the seeds have already been harvested and is being processed (Figure 2). In Côte d'Ivoire, while maize seeds have been harvested, rice seeds are still under production.

Table 2. Status of EGS production in Burundi, Cote d'Ivoire, Sierra Leone and Togo by December 2025

Indicator	Country	Output	Comments
EGS Production	Burundi	6.5 MT of EGS	6 MT of Beans 0.5 MT of Maize
	Cote d'Ivoire	6 MT of maize Rice EGS ongoing	8 MT of rice expected
	Sierra Leone	Groundnut and Cowpea EGS harvested, awaiting tonnage estimate	1.2 MT of groundnut expected
	Togo	4.98 MT of rice, cowpea and groundnut and sorghum	990kg of rice 1660kg of cowpea; 1800kg of groundnut 530 kg of sorghum

Figure 2: Legacy 26 cobs and IR841 rice variety at maturity in Togo (TALIPAK Seed Company)

Table 3. Summary of areas under cultivation for certified seed production by private seed companies

Country	Output	Comments
Burundi	40 ha under production	30 ha of Maize
		3 ha of Rice
		7 ha of Beans
Cote d'Ivoire	47 ha under production	42 ha of rice
		5 ha of maize
Sierra Leone	75 ha under production	75 ha of Rice
Togo	613 ha under production	613 ha of Maize, Rice, Sorghum, Cowpea, and Groundnut
Total Area	**775 ha**	

c) Farmer outreach and seed distribution

The project aims to recruit and train 1000 VBAs across four countries to distribute 300,000 small seed packs. A total of 443 Village-Based Advisors (VBA), representing 44% of the total project target, have been recruited in Sierra Leone (200 VBA) and Cote d'Ivoire (243 VBA). These VBAs have been trained on the small pack distribution methodology.

The VBAs distributed 135,979 small packs across Burundi, Côte d'Ivoire, and Sierra Leone. In Côte d'Ivoire and Sierra Leone, the distribution of 45,979 small packs was limited to specific rice varieties, namely NERICA L19-Sub1 and ORYLUX 6 in Sierra Leone, as well as IR841 and ORYLUX 6 in Côte d'Ivoire. In Burundi, the following crop varieties were provided to farmers: maize (AM1911-7 (3-way hybrid), Longe 7H and Makobwa varieties), beans (Musore, Musengo, Kinure, and RVW1272 varieties, and rice (Rutete).

Table 4. Overall status of VBA recruitment, training, and small packs distribution by December 2024

Country	VBA Recruitment			Small Pack Distribution		
	Target	Realized	%	Target	Realized	%
Burundi	300	0	0%	100,000	90,000	90%
Cote d'Ivoire	200	243	122%	50,000	5,979	12%
Sierra Leone	200	200	100%	50,000	40,000	80%
Togo	300	0	0%	100,000	0	0%
Total	**1000**	**443**	**44%**	**300,000**	**135,979**	**46%**

VBA recruitment and small pack distribution were implemented during the October 2024 season in Burundi. Similar initiatives will take place in Togo from May to June 2025.

To date 310, 71, and 20 demonstration plots have been established in Cote d'Ivoire, Burundi and Sierra Leone, respectively.

A total of 17,235 smallholder farmers have been reached, as shown in Table 5. This represents only 31% of the project target for small pack distribution, excluding Burundi. However, 46% of the total target for small packs has been achieved. Data on farmers reached through the distribution of 90,000 small packs in Burundi is currently being compiled.

d) Capacity building initiatives

A total of thirty-two (32) agro-dealers participated in training workshops conducted across the three countries: 16 in Togo, 10 in Côte d'Ivoire and 6 in Sierra Leone, which accounts for 73% of the overall target. The workshops were held from September 9th to 12th in Togo, November 5th to 8th in Sierra Leone, and November 11th to 13th in Côte d'Ivoire. The Burundi agro-dealer training was planned for January 2025.

Figure 3; Mary Mani (on the right), a happy Small Pack beneficiary, joined by Susan (FIPS) and Janatu (SSG) for the symbolic harvest of a Nerica L19 Sub1 rice in Sierra Leone.

Table 5. Overall status of farmers reached via VBA /small packs distribution by December 2024

Country	Output	Comments
Burundi	Data compilation in progress	90,000 small packs distributed
Cote d'Ivoire	1,002	881 - Male, 121 - Female, 30 Youth
Sierra Leone	16,233	Gender distribution to be confirmed
Togo	-	Activity will take place in April 2025
Total	**17,235**	

The main objective of these workshops was to enhance farmers' access to various agricultural inputs, particularly improved crop variety seeds, through a village-based agro-input distribution system. Agro-dealer training is specifically designed to:

- Strengthen the skills of agro-dealers in the management of agricultural shops.
- Enhance agro-dealers' expertise in seed management, including seed storage and management and other inputs.
- Develop the capacity of agro-dealers to collaborate effectively with seed companies to optimize seed distribution.
- Share knowledge of good business practices and customer management with agro-dealers.

e) Alleviating seed policy bottlenecks

Two meetings were planned in each of the four countries: one at the project's start and another at its conclusion. These meetings aimed to bring together seed sector stakeholders to discuss industry challenges and demonstrate the project's contributions in resolving some of these challenges.

2. Farmer-Driven Assessment of Climate-Resilient Crop Varieties and Downstream Impacts for Improved Food Systems in Madagascar and Togo

SSG is implementing an initiative known by its partners as the Seed Systems Improvement Program for Madagascar and Togo. The main objective of the project is to enhance food security and nutrition and increase the income of small-scale farmers by introducing and scaling up the use of improved, climate-resilient seed varieties of important food crops in Togo and Madagascar. The project is funded by the International Development Research Centre (IDRC), a Crown corporation of the Government of Canada, with a budget of up to US$873,066. This three-year initiative began in February 2022 and will run up to January 2025.

The specific objectives of the project are:

a. To learn which crop species and which varietal traits are important for different groups of farmers and other actors in rural communities to inform crop researchers how to target their crop variety selections and trials.

b. Develop a locally effective and sustainable seed distribution system.

Figure 4: IITA-bred hybrid maize trial at Ferkessedougou, Cote d'Ivoire

Figure 5: Mr Julien Amouzou MD of seed company Le Paysan in his cowpea seed production field.

c. Allow national, public crops research teams to access and evaluate the performance of introduced crop varieties.

d. Assess the social, gender, food security and economic trade-off of development, commercialization, and adoption of improved crop varieties.

The project is structured around two main components:

Component 1: support national crop breeding teams to conduct crop variety trials of a range of food crops on-station and on-farm, allowing for the best-suited crop varieties to be officially released for seed production and supply to farmers.

Component 2: in the first phase, SSG seek to determine which crops and crop variety traits are most likely to deliver lasting benefits to female and male smallholder farmers and youth in rural communities; and, in a second phase, measure the downstream impacts from the introduction of improved varieties into local farming systems.

Project Activities:

To address the relevant project questions and provide tangible benefits to farmers within the project's limited timeframe, the following key areas were identified for research and development in Togo and Madagascar:

- Socio-economic Analysis
- Crop Variety Testing and Selection
- Production of Improved Seed, and
- Farmer Awareness Building (farmer outreach).

To effectively implement the project activities, SSG is working with carefully selected partners in each country.

In Togo, the key project activities were awarded to the following partners:

a) Socio-economic study: Institut Togolais de Recherche Agronomique (ITRA) and Research work throughout the project: SSG and ITRA

b) Crop Variety Trials: ITRA

c) Seed Production: Le Paysan, DOMAH, SPIDD and ETS Talipak seed companies

d) Farmer Outreach and small packs of seeds distribution: Institut de Conseil et d'Appui Technique (ICAT)

In Madagascar, the key project activities were awarded to the following partners:

a) Socio-economic study: Madagascar Business Farming (MBF) and Research work throughout the project: SSG, FIFATA and AINA.

Figure 6: Rice trial conducted by ITRA in Togo, central region

b) Crop Variety Trials: FOFIFA and FIFAMANOR

c) Seed Production: FIFAMANOR (maize, potato, soya, sweet potato), and private seed producers, RELHARF (rice, maize, groundnut), AGRISEM (rice, maize), PHILEOL (groundnut), CMS Lova Behara (rice, beans, groundnut) and ANKAZO SEED (for the production of off-season hybrid maize seeds).

d) Farmer Outreach: FIFATA, DRAE and FIFAMANOR in the Vakinankaratra Region and AINA in the Androy Region.

Figure 7: Legacy 26 hybrid maize seed production by TALIPAK

a) Socio-economic study

A baseline socio-economic study was conducted in 2022 in both countries. Its objective was to establish a baseline situation on access and use of improved seed varieties, as well as the level of food security and women's empowerment in the regions targeted by the project. The results helped refine the project's strategic direction from the design and implementation phases, particularly in terms of priority crops that can ensure food security and increase the income of rural households, the varietal preferences of populations by gender, and the areas suitable for project implementation.

In 2024—two years after the project's implementation—an impact study was conducted in Togo and Madagascar. The main objective of this study was to assess the extent to which the interventions brought significant changes to the final beneficiaries, namely rural households. In Togo, the study began in March 2024, and the first draft of the report was submitted to the IDRC in July 2024. In Madagascar, the study began in mid-August 2024, and the first version of the impact study report will be available by the end of February 2025.

b) Crop variety trials and EGS production of new improved varieties in Togo

In 2022, ITRA conducted on-station evaluations of new varieties of maize, rice, and sorghum. A total of 40 adaptability trials for new varieties of these crops were carried out at four national research stations, with the objective of selecting the three best varieties per crop.

In 2023, on-farm tests, organoleptic tests, and farmer field days were conducted to assess these new varieties in both an experimental station

Table 6: Varieties tested (Maize, Sorghum, Rice) in Togo

	Maize	Rice	Sorghum
Variety tested	BONDOFA, FH68, AGRA2, KOMSAYA, FH33, TGWM1, TGWM2, TGWM3, TGWM4, TGWM5, WH101, KDH3, OPEABUROO, TGYM1, IKENNE, LEGACY 2, NU86012, NU88237, SC419, TGWM6	Chapeau vert Exbaika Orylux 1 Orylux 6 ADV 8100 ADV 8577 SWARNA 2 Jasmine 85 IR 64 IR 841	L28 Sorvato 9 Soubatimi Sariasso 22 IRAT 204 Sepon 82 ABM18-300-1 Zaboua F2-20 Deco
Total	**20**	**10**	**10**

and a farmer-managed environment across all six agricultural regions of the country. The results of these trials led to the release of 11 best varieties, including 4 of maize (TGMW3, TGMW4, FH68, and FH33), 3 of rice (Exabika, Jasmine 85, and Chapeau Vert), and 4 of sorghum (Soubatini, Sorvato 9, ABM18-300-1, and F2-20). These released varieties are currently in the process of being registered in the national catalogue.

Alongside these trials, ITRA produces a certain quantity of early-generation seed (Pre-basic and Basic) of maize, rice, sorghum, groundnut, and cowpea each year. To date, a total of 7.49 MT of Pre-basic and Basic seed has been produced.

c) Certified seed production in Togo

Le Paysan, DOMAH, SPIDD and ETS Talipak are the private seed companies carrying out certified seed production in Togo. Additionally, these companies establish trial plots to demonstrate the performance of new varieties of the different target crops of the project.

Table 7 summarizes the quantities of certified seeds produced by the seed companies.

The table 8 summarizes the 3 years of activities carried out in Togo, which corresponds to 3 growing seasons.

Table 7: Certified seed production achievement in 2024-2025 season by seed companies in Togo

Seed companies	Certified seed per Crops (Kg)					
	Hybrid Maize	Rice	Sorghum	Cowpea	Groundnut	Total
Le Paysan	1,500	8,000	2,300	1,500	4,000	**17,300**
DOMAH	2,200	6,000	-	-	-	**8,200**
TOTAL	**3,700**	**14,000**	**2,300**	**1,500**	**4,000**	**25,500**

Table 8: Summary of the outcome of project activities in Togo

Activities		Outcomes			
		2022-2023	2023-2024	2024-2025	Total
Variety trial conducted		40	0	0	**40**
Varieties released		0	11	0	**11**
Production of EGS (Prebasic and basic) seed (MT)		2.3	Not yet available	5.19	**7.49**
Production of Certified seeds (MT)		3.9	22.3	25.5	**51.7**
Number of Small packs produced		21,000	19,500	25,000	**65,500**
VBA Recruited	Total	5	260	-	**265**
	Female	0	21	-	
	Male	5	239	-	
	Youth	-	-	-	
Farmers reached	Total	14,528	12,368	11,192	**38,088**
	Female (27%)	2,888	3,597	3,844	
	Male (73%)	11,640	8,771	7,348	
	Youth	-	-	67,5%	
Training Sessions Conducted		02	02	02	**06**

d) Crop variety trials and EGS production of new improved varieties in Madagascar

Variety trials in Madagascar are conducted by FOFIFA and FIFAMANOR at their respective research centers in the Vakinankaratra region. Out of the 84 variety trials conducted, 15 were released in 2022/2023 and 13 in 2023/2024 by both research centers (Table 9).

Some of these high-yielding varieties include 5 new rice varieties, 1 biofortified maize hybrid, 3 improved groundnut varieties, 6 improved bean varieties, and 4 disease-resistant potato varieties.

FIFAMANOR and FOFIFA are also responsible for varietal maintenance and the production of early generation seed (EGS). A total of 19.643 MT of EGS and basic seed has been produced, including 8.716 MT in 2023-2024 season. The main crops involved are newly improved varieties of rice, groundnut, beans, potato, and soybean, which were released in 2022 and 2023.

e) Certified seed production in Madagascar

The production of certified seeds of newly improved varieties is carried out by five seed producers involved in the project: AGRISEM, RELHARF, and ANKAZO SEED (in the Vakinankaratra region), as well as PHILEOL and CMS Lova (in the Androy region). For hybrid maize seed production, two additional private enterprises, AGRIMA and Niasy, have been enrolled, along with FIFAMANOR. A total of 79.9 MT of seed is being produced, and 17,513 small packs have been produced and delivered to extension structures for distribution (Table 10).

Table 11 summarizes the 3 years activities carried out in Madagascar, which corresponds to 3 growing seasons in the Centre as well as in the South.

Table 9: Varieties trials and release in Madagascar

	Rice	Maize	Beans	Groundnut	Potato	Soybean
Varieties released	Chomrong Dhan FOFIFA 171 FOFIFA 172 FOFIFA 173 FOFIFA 180 FOFIFA 181 FOFIFA 186 FOFIFA 198 FOFIFA 199 NERICA 4	OPV= (Tombontsoa, IRAT 200) Hybrid= HP 1317	CAL 98, RI 5-2	Fleur 11, Mena kely, Donga, Kely tenda, Marabe	Meva Maneva Jengy Bandy Akama	Panderman Black OC11 FT10
Total	**11**	**3**	**2**	**5**	**4**	**3**

Table 10: Certified seed production achievement in 2024-2025 season by seed companies in Madagascar

Seed companies	Certified seed per Crops (Kg)							
	Rice	Maize OPV	Hybrid maize (HP 1317)	Groundnut	Beans	Potato	Soybean	**TOTAL**
FIFAMANOR	-	750	1	-	-	1,000	1,189	**2,940**
AGRISEM	10	20,000	-	-	-	-	-	**20,010**
RELHARF	22,867	2,100	-	1 430	-	-		**26,927**
ANKAZO	-		530	-	-	-	-	
AGRIMA	-	-	3 000	-	-	-	-	**3,000**
PHILEOL	-	-	-	8,000	-	-	-	**8,000**
CMS Lova	800	850	-	500	5 000	-	-	**7,150**
TOTAL	**23,677**	**23,700**	**3,531**	**9,930**	**5,000**	**1,000**	**1,189**	**68,027**

Table 11: Summary of outcomes of project activities in Madagascar

Activities		Outcomes			
		2022-2023	2023-2024	2024-2025	Total
Variety trials conducted		84	0	0	**84**
Varieties released		15	13	0	**28**
Production of EGS (Prebasic and basic) seed (MT)		2.7	8.7	19.6	**31**
Production of Certified seeds (MT)		61	75.9	68.03	**204.93**
Number of Small packs produced		16,250	17,513	1,791	**35,254**
VBA Recruited	Total	156	0	0	**156**
	Female (37%)	57	0	0	
	Male (63%)	99	0	0	
	Youth (74%)	115	65	42	
Farmers reached	Total	1,533	12,579	11,194	**25,306**
	Female (58%)	1,053	7,156	-	
	Male (42%)	480	5,423	-	
	Youth (65%)	449	8,671	-	
Training Sessions Conducted		02	03	02	**07**

Figure 8: Hybrid maize seed production by FIFAMANOR at Vakinankaratra, Madagascar

f) Farmer outreach and seed distribution

In Madagascar, the partners FIFATA, FIFAMANOR, DRAE are responsible for promoting small packs to farmers in the Vakinankaratra region, while AINA and CMS LOVA handle promotion in the Androy and South regions respectively. A total of 4,978 small packs were distributed in 2024-2025 cropping season, including 3,070 for rice, 200 for groundnut, 1,600 for beans, and 108 for potato, reaching 11,194 farmers.

In the same season in Togo, a total of 24,513 small seed packs were distributed by the extension structure and 13,059 farmers and VBAs were reached. It should be noted that each of the 265 VBAs recruited received 4 small packs of maize and rice seeds for the establishment of demonstration plots. A total of 397 demonstration plots were established by the VBAs.

3. Accelerated Innovation Delivery Initiative (AID-I): Haut Katanga, DRC

The International Maize and Wheat Improvement Centre (CIMMYT) received a grant from the United States Agency for International Development (USAID) for the promotion and popularization of improved seed varieties of legumes (beans and soybeans) and hybrid maize varieties in Haut-Katanga province of the Democratic Republic of Congo. The objective of this funding is to deliver available improved technologies to farmer's at-scale. In order to contribute to sustainable technology delivery systems, the initiative also aims to help build the seed supply systems in Haut-Katanga province. Subsequently, CIMMYT sub-granted the Seed Systems Group (SSG), as one of the implementing partners, to assist with implementation of the project in Haut-Katanga province, with a focus on hybrid maize and improved bean seed production, distribution, and popularization/ commercialization. This one-year project began in December 2023 and was to end in November 2024 but received a no cost extension of up to March 2025. The project is funded by USAID in the amount of US$100,263.

This sub-grant has the following three objectives:

a. Increase the production and the supply of quality seed of hybrid maize and bio-fortified bean to the small-scale farmers.

b. Enhance the adoption at-scale of improved technologies of hybrid maize and bio-fortified bean by the smallholder farmers; and

c. Improve the seed value chain for sustainable seed systems development in Haut Katanga.

Figure 10: One of the best performing varieties, WE2115 by INERA Kipopo

Project Activities:

a) Identification of new highly productive hybrid maize and beans varieties for production and supply of EGS

INERA, the national agricultural research station of the DR Congo, is conducting variety trials and EGS production. The INERA Kipopo Maize Sub-program developed three hybrid maize trial protocols with ten entries, including Maka, Mutsa, HP1317, Mukwa, ZS265, SC719, WE2112, WE2115, WE5117, and Babungo (an OPV) used as a control.

Figure 9: Bean variety trial by FOFIFA in Madagascar

These evaluations were carried out from June to December 2024 to identify the best-performing hybrid maize varieties that could be registered and commercialized in Haut-Katanga. Two trials have been harvested and data recorded; however, one trial has yet to be harvested, and data collection is still pending. Moreover, data from all three trials have not yet been analyzed to determine the best-performing and climate-resilient varieties.

Additionally, seed multiplication of five inbred lines is underway, but these lines have not yet been harvested.

The INERA Kipopo Legume Sub-program established demonstration plots for four bean varieties (i.e K32, CAL143, Maharagi Soya, and Kabosoma) and planted pre-basic seed multiplication plots for nine bean varieties, including NUA, at the INERA Kipopo station. A half-hectare plot of Maharagi Soya basic seed was also planted at Kanyameshi, Kipopo. The sub-program produced 0.2 MT of foundation seed and 0.144 MT of breeder seed of improved bean varieties.

b) Production of certified seed by private companies

SSG sub-granted two private seed companies (MIMOSA and BON BERGER), to help in production of certified seed of hybrid maize (WE5117, WE2106) and of bio-fortified beans seed HM21-7. A total of 7.59 MT certified seed was produced by these two seed companies (4.19 MT maize, 3.4 MT beans) with MIMOSA producing 4.59 MT and BON BERGER 3 MT.

c) Farmer outreach via VBA/Small pack approach

A total of 1,926 small packs (926 from MIMOSA, and 1000 from BON BERGER) of the hybrid maize varieties and improved bean were produced and distributed to 513 farmers.

Additionally, 11 demonstration plots were established and 3 field days conducted. The number of farmers reached through demonstration plots and field days was 255 (110 men, 105 women, and 40 youths) and 185 (67 men, 118 women), respectively.

d) Training on seed production technology

SSG conducted a training on hybrid maize seed production technology from 21 to 23 May 2024 at Mota Hotel in Lubumbashi, during which 15 participants from INERA Kipopo, seed companies (MIMOSA and BON BERGER), SENASEM, UNILU and Agricultural and Livestock Cooperative (COPAGL) attended. The training comprised the following topics: Maize production in DRC prospects and expectation; Market requirement and product development of maize hybrid; Basic breeding concepts (Heterotic groups, pedigree breeding, testing); Hybrid seed production: Hybrid types & Key determinants of productivity; Seed production (seed classes, seed calculation. Production goals and risks); Seed production Methods and Agronomy; Seed production performance indicators; Maintenance of inbred parents and Basic seed production; Pollen control; Seed grower selection, Support, Contracts and Seed pricing; Economics of hybrid seed production and Budget exercise, Principles of PBR and Variety release; Certification standards and Inspection procedures; Quality assurance systems; Pre and Post control of seed production; and Warehousing, Seed processing and Packaging.

Figure 11: Ms. Irene Mughi of SSG supervising WE201 hybrid maize production field by Mimosa Seed Company in Haut Katanga, DRC.

Table 12. Summary of AID-I Haut Katanga targets and achievements by December 2024.

Indicator	*Target*	*Achieved*
Variety verification and adaptation trials conducted	2	3
Improved variety breeder seed produced (MT)	0.1	0.144
Foundation seed produced (MT)	3	0.2
Certified seed produced (MT)	90	7.59
Small seed packs produced and distributed	50,000	1,926
Farmers reached through small seed packs	25,000	513
Field days conducted	60	3
Farmers reached through Field days	200	185
Field demonstrations established	60	11
Farmers reached through Demonstrations	-	255
Success stories documented	10	6
Training in maize hybrid technology	1	1

Prior to hybrid maize production training, SSG conducted on 21 – 22 March 2024 training sessions for 7 employees of INERA, MIMOSA, and BON BERGER. The primary focus of the training was on Seed Packs methodology, Village Based Advisors (VBAs) model, and Data Collection methodologies.

e) Participation in the learning event in Lusaka, Zambia

SSG participated in the learning event organized by CIMMYT and IITA from March 24 to 28, 2024, during which a poster showcasing activities undertaken by SSG partners under AID-I Haut-Katanga was exhibited.

4. Accelerated Innovation Delivery Initiative (AID-I) Great Lakes: Burundi, Rwanda and DRC

The Great Lakes Accelerated Innovation Delivery Initiative (AID-I GLR) is a one-year, multi-stakeholder initiative funded by USAID and implemented by IITA. The overall goal of the AID-I is to significantly increase food security and rural economic development in

Figure 12: Muhoro - improved bean variety

the Region of the Great Lakes (DRC, Rwanda, and Burundi) through the adoption at-scale of proven technologies, the majority of which have been developed by the CGIAR. The initiative also aims to help build the seed supply systems in DRC, Rwanda and Burundi. IITA sub-granted the Seed Systems Group (SSG), as one of the implementing partners. This project began in December 2023 and was to end in November 2024 but received a no cost extension of up to March 2025. The project is funded by USAID in the amount of US$1,776,008.

Figure 13: Maize hybrid seed AM1912-29, harvested by Coop Eden.

This sub-grant has the following three objectives:

a. Increase the production and the supply of quality seed of hybrid maize and bio-fortified bean to the small-scale farmers.

b. Enhance the adoption at-scale of improved technologies of hybrid maize and bio-fortified bean by the smallholder farmers; and

c. Improve the seed value chain for sustainable seed systems development in Burundi and DRC.

Project Activities:

a) Variety verification and trials and production of EGS

In 2024, the ISABU and INERA national research stations conducted 3 and 2 variety verification and adaptation trials, respectively, for hybrid maize, meeting the project target. ISABU produced 10.65 MT of EGS, while INERA produced 1.6 MT.

b) Production of certified seed by private companies

SSG sub-granted three private seed companies (ETS Munga, AgriForce and EPH SARL) in DR Congo to help in production of certified seed of hybrid maize and of bio-fortified bean seed.

A total of 104.81 MT certified seed was produced by these three seed companies (64.81 MT maize, 40 MT beans) with ETS Munga producing 35.3 MT, AgriForce 63.11 MT, and EPH SARL 6.4 MT.

Similarly in Burundi, production of certified seed is carried out by three private seed companies namely Hagurukadufashanye, COOP EDEN, and NASECO. These three seed companies produced a total of 62.72 (61 MT beans and 1.72 MT maize).

c) Farmer outreach via VBA/Small pack approach

In DR Congo, a total of 224,488 small packs of improved bean (123,988) and hybrid maize (100,500) were produced by ETS Munga, AgriForce and EPH SARL. In Burundi, 175,400 small packs of improved bean varieties (36,500) and hybrid maize seed (138,900) were produced by Hagurukadufashanye and COOP EDEN, however, only 26,233 were distributed to farmers.

A total of 5,853 demonstration plots (2,733 for beans and 3,120 for maize) were established in Burundi. The total number of farmers reached through the field demonstrations and small packs was 75,459 (42,763 males, 32,695 females, and 10,894 youths). In DR Congo, 42,411 farmers were reached (15,989 men, 26,422 women, and 12,245 youths).

d) Training on seed production technology

SSG conducted a training workshop in Bujumbura from July 31 to August 2, 2024, focused on training seed companies in seed technology, cleaning and packaging, seed business management, marketing, and VBA approach for all AID-I seed companies in Rwanda, Burundi and DRC. This workshop brought together seed companies from Rwanda, Burundi and DRC. The training aimed to improve the quality and efficiency of seed companies involved in hybrid maize production across the region.

Table 13: Summary of AID-I Great Lakes targets and achievements by December 2024

Indicator	Burundi		DR Congo	
	Target	*Achieved*	*Target*	*Achieved*
Variety verification and adaptation trials conducted	3	3	2	2
EGS seed produced for maize and beans (MT)	5	10.65	5	1.6
Certified seed produced for maize and beans (MT)	200	62.72	250	104.81
Small seed packs produced	175,500	175,400	224,500	224,488

e) Agro-dealer training

SSG conducted agro-dealer training from September 17 to 20, 2024 in Bukavu. The training covered various aspects of the agro-dealership business, from sourcing and selling seeds to understanding market demand and customer relationships. The training aimed to increase the capacity of agro-dealers to support the broader dissemination of improved seeds.

5. Sustainable Seed Systems for Drought-Response in the Greater Horn of Africa

The drought in the Horn of Africa has resulted in more than 20 million people facing severe hunger, exacerbated by additional challenges such as the aftermath of COVID-19, inflation, and supply chain disruptions caused by the war in Ukraine. In this context, International Fund for Agricultural Development (IFAD) has prioritized the development of localized, sustainable systems to provide high-yielding, climate-resilient seeds to smallholder farmers in the four Horn of Africa countries: Djibouti, Eritrea, Somalia, and South Sudan. IFAD has contracted SSG to support the establishment of a sustainable supply of high-yielding, climate-resilient seeds of improved crop varieties in these countries.

The project has the following goals:

a. Strengthen sustainable localized systems for supplying high-yielding climate-resilient seeds for nutritious food and forage crops;

b. Promote sustainable uptake and effective use of high-yielding climate resilient seeds for nutritious food and forage crops among smallholder farmers and pastoralists to achieve consistently higher yields despite climate shocks and stressors; and

c. Strengthen regional seed policies and sharing of germ plasm and practical experiences in seed systems development.

The program is funded by IFAD with an amount of $1.5 million and will be implemented over two years, starting July 2024 and is expected to end in August 2026. The program has the following components: (i) develop and disseminate new seed varieties; (ii) strengthen supply systems of improved seed; (iii) farmer outreach and engagement; and (iv) regional policy and coordination.

Table 14: Focus crops for Djibouti, Eritrea, Somalia, and South Sudan

Djibouti	Eritrea	Somalia	South Sudan
• Tomato and other vegetable crops • Forage crop species	• Hybrid maize • Sorghum • Wheat • Millet	• Hybrid maize varieties • Cowpea • Mung bean • Sorghum	• Hybrid maize varieties • Sorghum • Cowpea • Beans • Groundnut

Table 15: Geographical areas of operation in Djibouti, Eritrea, Somalia, and South Sudan

Djibouti	Eritrea	Somalia	South Sudan
• Ali-Sebieh • Arta • Dirkhil	• Maekel • Anseba • Gash Barka • Debub • North Red Sea • South Red Sea	• Hirshabelle • Jubaland • Southwest	• Eastern Equatoria • Central Equatoria • Western Equatoria • Western Bahr El Ghazal

Status of Project Implementation:

In South Sudan, implementation of the project activities started but not in Eritrea, Djibouti, and Somalia, pending GAL signing and release of funds to partners.

Djibouti

A forage expert was brought on board to support the project. Sites for seed testing were identified, and the shipment of forage seeds from ILRI in Ethiopia to Djibouti initiated. Two main forage seed suppliers, Douda and Tadjoura farms, were identified to provide foundation seed. The production of vegetable seeds is in progress. SSG developed capacity-building and monitoring plans to guide the project's progress.

Table 16: Djibouti partners and targets

Partner Name	Activities and Targets
CERD	- Testing and identification of new forage species and varieties
DAF	- Identify onion, tomato, okra and eggplant producers (5 out of 10 previous producers). - Identify 2 forage growers. - Forages small packs distribution (up to 500 farmers in Year 1). - Recruit 10 potential agro-dealers from among 70 VBAs of previous project. - Capacity building.
IGAD	- Organize regional seed forum meeting. - Organize joint field visits by SSG and IGAD. - Update seed systems analysis of the seven IGAD member states. - Harmonization of national seed policies.

Eritrea

The grantees were identified, and targets set for each grantee. Contracts were signed to formalize partnership with grantees. Project leads for each activity were selected to ensure effective implementation. Additionally, field visits were conducted to monitor the activities of the current season.

Somalia

The recruitment of implementation partners was completed, with five seed companies (Filsan, CSET, Kulmiye, Gaalooge, and Horn Grow) selected.

Table 17: Eritrea partners and targets

Partner Name	Targets
MoA-NARI	- Produce pre-basic seed on 2.2 ha and single cross on 2 ha.
MoA-NARI	- Produce single cross seed on 33 ha in 2024 and 190 ha in 2025.
MoA-AED	- Train 50 staff in new technologies. - Establish 500 demonstration plots. - Organize 20 field days. - Identify and train 300 VBAs for small packs' seed distribution to smallholder farmers. - Register 1400 farmers on E-Platform. - Distribute 150,000 small packs.

Table 18: Somalia partners and targets

Partner name	Targets
MoAI Federal	- Produce 4 varieties of breeder/foundation seeds
Filsan Seed Company	- Produce 110 MT certified seeds - Produce 70,000 small packs
CSET Seed Company	- Produce 45 MT certified seeds - Produce 73,000 small packs
Kulmiye Seed Company	- Produce 23 MT certified seeds - Produce 52,000 small packs
Gaalooge Seed Company	- Produce 23 MT certified seeds - Produce 52,000 small packs
Horn Grow Seed Company	- Produce 24 MT certified seeds - Produce 53,000 small packs
MoAI Hirshabelle	- Distribute 66 small packs via VBAs - Establish 33 demo farms - Organize 3 field days - Matching grants to 6 entreprenuerial VBAs
MoAI South-West	- Distribute 34 small packs - Establish 34 demo farms - Organize 4 field days - Matching grants to 7 entreprenuerial VBAs
MoAI Jubaland	- Distribute 33 small packs - Establish 33 demo farms - Organize 3 field days - Provide matching grants to 6 entreprenuerial VBAs

South Sudan

The recruitment of implementation partners for South Sudan was completed, with six seed private companies (Seed Grow, Green Horizon, PRO Seed, Afroganics, Smart Seeds, and MASCO) and two NGOs (Farm Stew and Base Net) selected. The partners have started implementing project activities.

The overall status of implementation of activities by the project partners are presented in Table 19.

Table 19: Overall status of implementation of activities in South Sudan by December 2024

Partner Name	Targets	Status
MAFS (Ministry of Agriculture and Food Security)	Test and release 2 new maize hybrids. Produce 1.5 MT of EGS of 6 improved seed varieties. Train 4 staff in certification, variety testing, data handling, and variety release. Establish a drip irrigation system on 5 ha for EGS production.	Production of EGS and Foundation seeds of groundnut on 7 acres, beans 5 acres, and sorghum 5 acres ongoing
Seed Grow	Produce, market, and distribute 33 MT of certified seed. Produce and package 36,000 small packs.	Not started. Will start Bazooka hybrid maize production in Apr. to Nov. 2025 season
Green Horizon	Produce, market, and distribute 29 MT of certified seeds. Produce, package and distribute 36,000 small packs.	Planted 5 acres with hybrid maize Bazooka and 3 acres each of certified beans (NABE 17) and groundnut (Red Beauty)
Afrogarnics (seed company)	Produce, market, and distribute 21 MT of certified seed. Prepare and distribute 18,000 small packs.	Production of certified seeds: 3 acres of sorghum (Seso 3), 2 acres of beans (MAG 112 and MAG 119, 1 acre each), 2 acres of cowpea (AGRAC 116), and 2 acres of groundnut (Red Beauty and Serenut 3, 1 acre each).
PRO Seed Ltd	Produce, market and distribute 29 MT of certified seed. Prepare and distribute 30,000 small packs.	Production of EGS hybrid maize: bulking of three parental materials (inbred lines) of the hybrid sourced from CIMMYT in 3 sites, 6.5 acres cumulatively. Also started producing certified seeds of Sorghum (Seso 3), groundnut (Serenut 6T), and cowpea (Secow 2WT) in 10 acres each
Smart Seeds	Each company: Produce, market and distribute 19 MT of certified seed. Prepare and distribute 15,000 small packs.	Smart Seeds started producing certified seeds on 2 acres for cowpea (Secow 2WT) and 3 acres groundnut (Red Beauty).
MASCO		MASCO started producing certified seeds of cowpea (Secow 2WT) on 2 acres and beans (NABE 17) on 6 acres
Farm Stew (Extension agency)	Each organization: Recruit 230 Farmers and off-takers. Recruit 180 VBAs. Establish 180 Mother demos. Subscribe 230 Beneficiaries to e-farming. Conduct 15 Farmer field days. Support 25 Entrepreneurial VBAs. to become agro-dealers	Farm Stew: Recruited 121 VBAs (male=105, female=16), 46 farmers (male=30, female=16), and 36 off-takers (male=24, female=12) Base Net: Recruited 15 VBAs
Base Net (Extension agency)		

Figure 14: Foundation seed production fields by MAFS of sorghum (Seso 3) at Rajaf Research Farm

Figure 15: Groundnut (Yepa 1) at Palotaka research station

6. The Vision for Adapted Crops and Soils (VACS)

The Vision for Adapted Crops and Soils Seed Systems Activity (VACS-SSA) is a three-year initiative funded by USAID with an amount of US$2.2 million, focused on promoting the production and adoption of seed of improved varieties of "opportunity crops" in Ghana, Kenya, Malawi, Senegal, Tanzania, and Zambia. The dual aim of VACS-SSA is to improve nutrition and increase resilience in a context of climate change. Seed Systems Group (SSG) in collaboration with CIMMYT is implementing the initiative in Ghana, Kenya, and Senegal. The priority crops for VACS are pearl millet in Ghana; amaranth, cowpea, finger millet, mung bean, and pigeon pea in Kenya; and cowpea and pearl millet in Senegal. This project was started in November 2023 and is expected to be completed in September 2026.

SSG is engaging multiple partners to support the implementation of the VACS project (see Table 20).

Table 20: SSG Partners for VACS project

Sector	Country	Institution
Seed companies	Kenya	Dryland Seed Company, Inyamandu CBO Seed Merchant, Leldet Seed Company, and Tegemeo Cereal Aggregators
	Ghana	IWAD Ghana Ltd, ANTIKA Company Ltd
	Senegal	SEDAB, Fatou SARR
Research Institutes	Kenya	KALRO
	Ghana	CSIR/SARI
	Senegal	ISRA/CNRA
Extension Service Providers	Ghana	Northeast Regional Department of Agriculture, Upper East Regional Department of Agriculture, Upper West Regional Department of Agriculture
	Kenya	FIPS
	Senegal	RESOPP

Project Activities:

a) Production of foundation and breeder seed of the improved crop varieties

The production of foundation and breeder seed is carried out by national research institutes. In Kenya, this activity is conducted by KALRO; in Ghana, by CSIR and SARI; and in Senegal, by ISRA and CNRA. Multiplication of breeder and foundation seed of mung bean, amaranthus, and cowpea is ongoing at KALRO and ISRA to ensure sufficient seed is available to seed companies for production of certified seed and varietal promotion activities.

b) Production of certified seed of improved crop varieties

A total of 154.96 MT of certified seed of improved crop varieties has been produced by seed companies in Kenya (144.86 MT by Tegemeo and 10.1 MT by Inyamandu CBO), while in Ghana, 3.4 MT has been produced by ANTIKA seed company: in Senegal, no amount of certified seed has been produced.

c) Farmer Awareness

Small seed packs have been distributed to farmers to raise awareness of these improved varieties: In Kenya, a total of 88,788 small packs of mung bean varieties (Ndegu Tosha, Biashara, and Karembo) and cowpea varieties (Kat-Kunde, Kunde Faulu, and Kunde Soko) have been packaged and distributed by seed companies, including Dryland Seed Co., Inyamandu CBO Seed Merchant, and Tegemeo Cereal Aggregators.

Figure 16: Dry season production of pearl millet ongoing at IWAD, Ghana

Figure 17: Farmers learning from the mother demo of a VBA in Machakos County, Kenya

In Senegal, a total of 18,000 small packs have been packaged by seed companies and distributed by RESOPP. Of these, 7,500 small seed packs of cowpea ('SAM' variety) and 3,000 of pearl millet (1,600 of 'SL 423' and 1,400 of 'SL 169') have been packaged by SEDAB SARL seed company.

In Ghana, 1,205 small packs of improved pearl millet varieties (WAAPP-Naara, NAAD-Kohblug, and NAFAGNON) introduced from Burkina Faso have been distributed for testing on farmers' fields. The 'WAAPP-Naara' variety is the preferred choice among farmers across all regions.

Demonstration plots have been planted to raise awareness of the new varieties, provide additional information on the use of appropriate agronomic techniques, and showcase the varieties' agronomic potential. A total of 28 demonstration plots have been established in the Upper East, Upper West, and Northeast regions of Ghana. The Upper East region, a major pearl millet production area, has the highest number of farmers receiving pearl millet varieties, with a total of 366 farmers engaged. Additionally, 126 demonstration plots have been established in Kenya and 50 in Senegal.

To date, a total of 144 VBAs in Kenya, 50 in Senegal, and 27 in Ghana have been trained, along with technical staff from each country's Ministry of Agriculture and seed companies. The training aimed to enhance the VBAs' knowledge and skills in modern agricultural techniques, with a particular focus on the VACS project objectives. The VBAs help distribute small seed packs and share knowledge with farmers in their villages.

Table 21: Summary of VACS targets and achievements from March to December 2024

Indicator	Kenya		Ghana		Senegal	
	Target	*Achieved*	*Target*	*Achieved*	*Target*	*Achieved*
Amount of improved variety breeder seed produced (MT)	0.63	0	0	0.04	0	0
Amount of foundation seed produced (MT)	7.75	0.50	0.25	0.45	1.5	0
Amount of certified seed produced (MT)	113.00	154.96	10.00	3.40	30	0
No. of outgrowers subcontracted	-	138	-	3	-	-
Number of small seed packs produced	180,000	88,788	2,200	1,205	14,000	18,000
No. of farmers reached through small seed packs	180,000	20,895	2,200	701	14,000	12,017
Smallholder farmers reached through different Promotional and Awareness creation activities	28,938	10,167	3,324	1,100	14,110	12,167
No. of field demonstrations conducted	1200	126	2	28	2	50
No. of farmers reached through Demonstrations	38	37	140	27	50	50
No. of VBAs recruited	1,800	144	25	27	25	50
No. of farmers reached through VBAs	1,820	20	84	27	60	100
No. of agro-dealers trained	50	28	20	30	10	0

d) Capacity building initiatives

Ghana's Ministry of Food and Agriculture (MoFA) conducted capacity-building training in the Upper West Region from 17th to 19th of September 2024. The training targeted Multi-Network Coordinators (MNCs), Network Coordinators (NCs) and ANTIKA seed company staff member, focusing on enhancing their understanding of VACS activities and their role in driving sustainable agricultural practices. Participants were trained on key project data collection procedures, data creation for the project and the broader objectives of the VACS project. This initiative aimed to equip MNCs and NCs with the skills necessary to support the project's implementation across different communities, ensuring that all objectives are implemented at all levels.

7. Somalia Seed Systems Recovery Initiative

Somali Seed Systems Recovery Initiative (SSSRI) is a two-year project funded by the World Bank with a total amount of US$1,999,967. It aims to develop sustainable seed supply systems in the country's breadbasket regions of Hirshabele, Jubaland, and Southwest, beginning in May 2023. Seed Systems Group (SSG) serves as the Somalia's Ministry of Agriculture and Irrigation's (MoAI) main partner in implementing this program. The other partners include 5 private seed companies: CSET, Filsan, Horn Agro, Kulmiye, and Gaalooge. The principal objective of SSSRI project is to strengthen the technical capacity of MoAI and contribute to poverty reduction and improved food security, nutrition, employment, and women and youth empowerment by increasing the yield and resilience of Somalia's main food and forage crops production systems. The overall goal of the project is to develop a dependable supply of quality seed of recently released varieties of crops for Somalia and the priority crops include maize, sorghum, cowpea, mung bean, and forages.

Project Activities:

a) Production of foundation seed

A total of 7.6 MT foundation seed of mung bean has been produced by Filsan Seed Company: 4.1 MT in 2023 and 3.5 MT in 2024, achieving 50.7% of the project target.

Figure 19: Certified mung bean seed production by Gaalooge Seed Company

b) Certified seed production

A total of 985.1 MT of certified has been produced by the private seed companies: 297.89 MT by CSET, 115.3 MT by Filsan, 169.8 MT by Horn Agro, 163 MT by Kulmiye and 239.11 MT by Gaalooge, achieving 56.6% of the project target.

c) Farmer awareness via VBA/small pack distribution

A total of 20 ToTs for VBAs have been trained in seed technologies, modern crop production practices, and digital technology, meeting the overall project target. Participants were drawn from the MoAI extension unit at the federal level and the states of Hirshabelle, Jubaland, and Southwest. By December 2024, the MoAI

Figure 18: CSET Seed Company certified sorghum variety Gadam production

extension units of Hirshabelle, Southwest, and Jubaland had recruited and trained 1,055 VBAs (389 from Hirshabelle, and 333 each from Jubaland and Southwest). These VBAs have been engaged in training sessions focused on raising awareness of improved seed varieties using the small pack methodology, as well as best agronomic practices for crop production.

The VBAs, working closely with the state MoAI extension staff, distributed 300,000 small packs prepared by partner seed companies to farmers and pastoralists within the districts. Most of the distribution was completed by the end of the second week of October, just in time for planting in the Deyr 2024 season. To date, a total of 105,538 farmers have been reached through small packs distributed by VBAs in the three states.

d) Training of Agro-dealers

A total of 125 agro-dealers were trained in three cohorts (3 days each) between 28th October to 6th November 2024 in Palms Hotel, Mogadishu, meeting the project target. The training focused on business management as well technical aspects of seed and related agro-input products handling and supply to farmers.

e) Establish basic facility for seed testing in Hirshabelle, Southwest and Jubaland

The procurement process for laboratory equipment in Hirshabelle, Southwest, and Jubaland states took place during the fourth quarter of 2024. Bids were sent out, and tenders were awarded to selected bidders for the supply of various laboratory equipment and inputs.

f) Strengthened MoAI/SARI's capacity in plant breeding

Four (4) MoIA staff were admitted and successfully enrolled at the University of Zimbabwe for MSc. in Plant Breeding and Biotechnology. The students began their studies in November 2024 and the program will take two years to complete.

Figure 20: Agro-dealers training at Palms Hotel, Mogadishu

Table 22: Summary of SSSRI project activities, targets, and outputs by December 2024

Indicator Name	Implementation Performance		
	Overall Target	Achieved	Achieved (%)
No. of testing & adaptation trials of selected forage and crop seed varieties	36	39	108
Production of foundation seed by MoAI for release to private companies (MT)	15	7.6	50.7
Production of certified seeds by private companies (MT)	1,740	855.90	49.2
Seed growers recruited by private seed companies	200	200	100
Small Packs prepared	300,000	304,000	101
Farmers reached	100,000	105,566	105
VBAs trained in seed distribution and good agronomic practices	1,000	1,055	105
Beneficiaries trained in improved practices, seed technology, modern crop production practices and digital technology	25	25	100
Agro-dealers recruited	125	125	100
Strengthened MoAI/SARIS capacity in plant breeding	4	4	100
Improved capacity of private companies in seed technology, cleaning & packaging	24	24	100

8. Enhancing Cowpea Production and Adoption Among Smallholder Farmers in Malawi

The project aimed to increase production and adoption of Chitedze Cowpea 3 (IT00K-126-1), IT82E-16 and, Mkanakaufiti through various demand-creating activities. It promoted the three cowpea varieties across 5 districts in central and southern part of Malawi. The five districts are Machinga with 4000 beneficiaries, Balaka with 5000 beneficiaries, Zomba with 3000 beneficiaries, Dedza with 3000 beneficiaries, and Salima with 5000 beneficiaries. The project was funded by ILCI with a budget of US$260,500 for a one-year period and was completed in September 2024.

Through this project, SSG assisted the Center of Innovation for Crop Improvement for East and Southern Africa (CICI-ESA) to increase adoption of the three cowpea varieties through involving local private seed companies, targeted support to the Department of Agricultural Extension Services (DAES) for training of village-based advisors, and the widespread distribution of small sample packs of seed of the improved varieties to farmers for awareness creation.

Figure 21: Cowpea variety Chitedze certified seed production by Mgom'mera Seed Company, Malawi

The specific activities carried out under this objective were:

i. Provided support to CICI-ESA for bulking of EGS by DARS

i. Assisted two local seed companies, Multi-seed Company (MUSECO) and Mgom'mera Seed Investment, to produce certified seed.

ii. Trained local Department of Agriculture Extension Services (DAES) agents who recruited and trained village-based advisors (VBAs) to distribute small 50g packets of seed of the improved seed varieties to each farmer in their villages and host farmer field days showcasing demonstration plots of the new varieties using the recommended production practices.

Summary of the project outcomes

SSG's partners included two private seed companies—Mgom'mera and MUSECO—as well as the Department of Agricultural Research Services (DARS). With SSG's support, the seed companies engaged in the production of early generation seed (EGS) and certified seed of improved cowpea varieties, as well as the preparation of small seed packs for distribution to farmers.

A total of 9.22 MT of EGS was produced: Mgom'mera produced 1.39 MT, MUSECO produced 1.6 MT, and DARS produced 6.23 MT. Additionally, 40.09 MT of certified seed was produced, with Mgom'mera producing 10.59 MT and MUSECO 29.5 MT.

Farmer awareness activities were crucial to the project. A total of 200 village-based advisors (VBAs)—135 men and 65 women—were recruited and trained in VBA/small pack methodology. Through the distribution of 20,000 small packs by the VBAs, 19,036 farmers were reached, including 7,011 men, 11,534 women, and 4,247 youth.

A total of 118 field days were conducted, attended by 10,176 men, 17,591 women, and 6,204 youth. Additionally, 201 mother demonstrations were established. Through these demonstrations and field days, farmers were able to learn new farming technologies.

Figure 22: A farmer and his wife showing their harvest from 50g small pack.

One training session for seed companies was conducted, focusing on seed production and handling. The training was facilitated by officers from Seed Services Unit (SSU): A total of 9 officers from MUSECO, Mgom'mera, Global seeds, SeedCo, Demeter and NEMA seeds were trained. The objective of the training was to improve their efficiency which will help in the production of seeds that meet the standards of seed certification.

MUSECO and Mgom'mera seed companies were linked to the VBAs and agro-dealers in the target regions to supply larger quantities of seed in 1 to 2kg bags for direct sale to farmers in subsequent seasons.

Table 23: Summary of project targets and achievements

Indicator	Target	Achieved	% Achieved
EGS seed produced (MT)	4	9.22	231
Certified seed produced (MT)	100	40.09	40
50-g small seed packs produced and distributed	20,000	20,800	104
Farmers reached through small seed packs	20,000	19,036	95
VBAs recruited and trained	200	200	100
Success stories documented	2	1	50
Extension agents trained in VBA/small pack methodology	50	67	134

9. Seed System Development Project in Kasai Oriental Province, DRC

SSG received US$690,000 from WFP to implement the Kasai Oriental Seed Systems Development Project for a period of seven months, from December 2024 to June 2025. On December 11, 2024, at the Gloria Hotel in Mbujimayi, a working meeting was held between WFP and SSG. During the meeting three short-term priority activities were identified:

Priority 1: Support INERA in setting up the trials and producing the basic seeds of the improved crop varieties (i.e., maize, cowpea and soybeans).

Priority 2: Identify, restructure and support seed producers (individual and groups Agri-multipliers) at the territory level.

Priority 3: Promote the marketing of seeds and other agricultural inputs.

Mapping of PAM / Equity BCDC credits beneficiaries

The team agreed that mapping of smallholder farmers benefiting from credits granted by PAM / Equity BCDC should be carried out.

During the month of December 2024, SSG team deployed to the field and consulted all stakeholders (public and private) involved in the development of seed systems in Kasai Oriental. WFP, the services of the provincial Ministry of Agriculture (Provincial Minister, Inspection, SENASEM, SNV and SENAFIC), INERA Gandajika, NGOs and associations, APSKO, seed agri-multipliers and vendors of agricultural inputs were consulted. During this period, the mapping of beneficiaries of credits granted by WFP and Equity Bank was developed; a short list of active and experienced agri-multipliers was established; opinions of each actor on the interventions to be carried out in the short term were collected and synthesized; the certified seed quantities of maize and cowpea for organizing seed fairs were estimated. Likewise, the basic seeds quantities of maize, cowpea and soybean were estimated for season B 2025. It was discovered that there is no single seed vendor in the territories of Kasai Oriental province.

The mapping will play a very important role in targeting areas where seed companies must be implemented in each of the three territories concerned (Kabeya Kam, Miabi and Lupatapata). The data for the mapping of four structures with 187 members that are being granted credits by WFP-Equity are summarized in Table 24.

Table 24 reveals that the territory of Kabeya Kamuanga has the largest number of PAM/ Equity credits beneficiaries with 99 members or 52.94% followed by Lupatapata with 50 members or 26.74% and Miabi with 38 members or 20.32%

Table 24: Spatial distribution of beneficiaries of agricultural credits in Kasaï Oriental

		Territory			Men		Women	
Structure	**#Members**	**Kabeya Kam.**	**Miabi**	**Lupatapata**	**#**	**%**	**#**	**%**
FOPAKOR	80	30	0	50	53	66.25	27	33.75
LACOME	38	0	38	0	12	31.58	26	68.42
UPAL	38	38	0	0	24	63.16	14	36.84
CCUD	30	30	0	0	24	80	6	20
Independent	1	1	0	0	1	100	0	0
Total	**187**	**99**	**38**	**50**	**114**	**60.96**	**73**	**39.04**

Estimates of certified seeds availability per territory in January 2025

The visits carried out in some seed multipliers fields in four of the five territories of the Kasaï Oriental province allowed SSG to provide information on the availability of certified seeds for maize and cowpea (See table 25) that could be sold during the seed fairs to be organized in the territories PAM/ Equity BCDC bank have given credits to the smallholder farmers.

Table 25 shows that the areas under seed production are estimated to be 79 ha for maize (56.5 ha for Mus1 and 22.5 ha for Mudishi3), 26 ha for cowpea and 1 ha for soybean. Considering an average yield of 0.8 Mt/ha for maize, 0.7 MT/ha for cowpea and 0.7 MT for soybean, the quantities of seeds expected for season B 2025 are 63.2 MT for maize (45.2 MT for Mus 1 and 18 MT for Mudishi1), 18.2 MT for cowpea and 0.7 MT for soybean. The information obtained during group discussions showed that 70% of maize and cowpea seeds produced by agri-multipliers since last year are purchased by the projects that pre-financed them. Therefore, the quantities of seeds that can be sold during the seed fairs would be 18.96 MT for maize, 5.46 MT for cowpea, and 0.7 MT for soybean.

Production of early generation seeds (EGS)

The amount of basic seeds of maize OPVs, cowpea and soybean needed by the potential seed enterprises, and which should be acquired during season B 2025 from INERA Gandajika is reported in Table 26.

Table 25: Estimates of certified maize, cowpea and soybean seed quantities produced during season A 2024 per territory

Territory	**Area (ha)**				**Production estimated (MT)**			
	Maize Mus 1	Maize Mudishi 3	Cowpea Diamant	Soybean AFYA	Maize Mus 1	Maize Mudishi 3	Cowpea Diamant	Soybean AFYA
Tshilenge	38.5	2	7.5	1	30.8	1.6	5.25	0.7
Kabeya Kamuanga	0	4.5	2	0	0	3.6	1.4	0
Lupatapata	11	9	16.5	0	8.8	7.2	11.55	0
Miabi	7	7	0	0	5.6	5.6	0	0
Total	**56.5**	**22.5**	**26**	**1**	**45.2**	**18**	**18.2**	**0.7**

Table 26: Quantity of basic maize OPVs, cowpea and soybean seeds needed by the potential seed companies during season B 2025 from INERA Ngandajika

Crop	Variety	Quantity (kg)	Acquisition deadline
Maize	Mus	725	05/02/2025
	Mudishi 3	500	05/02/2025
Cowpea	Diamant	625	01/25/2025
Soybean	AFYA	500	01/25/2025

In addition, Maize and Legumes Programs will produce basic maize OPVs, cowpea and soybean seeds during season B 2025 at INERA Gandajika center. The basic seeds production targets for each crop will be determined in their project proposal.

The next steps will consist of sharing the project model among the potential grantees and collecting their projects 'proposals, revising them and selecting the beneficiaries, and implementation of projects' activities.

Consultancies and Seed Systems Analysis Work in 2024

1. Consultancy to Design Seed Sector Strategy and Investment Plans for Burkina Faso, Mali, Mozambique, Rwanda, and Tanzania

The main goal of this consultancy was to help the national governments of Rwanda, Mali, Burkina Faso, Mozambique and Tanzania, based on findings from systemwide seed sector analysis done under SeedSAT (Seed Systems Assessment Tool), develop investment plans which they can pitch for funding. These strategies and operational plans were to provide guidance to address key bottlenecks in the seed systems of those countries.

SSG collaborated with The African Seed Access Index (TASAI) which was the lead partner, and Agri Experience Limited. SSG was in charge of Burkina Faso, Mali, and Mozambique, while TASAI handled Rwanda, and Agri Experience managed Tanzania. This project was funded by AGRA for a period of 4 months, from Jan to April 2024, with SSG receiving US$150,700 for the work.

The specific objectives were as follows:

a. Review the existing National Seed Strategies and Investment plans to identify critical gaps and implementation challenges.

b. Establish, document, and prioritize government ambition and vision for the seed sector, and ensure alignment of investment plans and seed strategies to the priorities.

c. Review the country SeedSAT reports (gaps and recommendations) and, based on that, develop investment plans for each of the 5 countries.

d. Use outcomes of the intensive and extensive reviews, and build on recommendations from SeedSAT assessments, to develop comprehensive seed sector strategy and investment plans in each of the target countries.

e. Develop a costed investment plan that demonstrates that the seed system has been analyzed and investments designed to target all the issues and challenges.

f. Validate the investment plans with key stakeholders of each of the 5 countries.

The approach and outcome

The elaboration of the seed strategy observed the primary bibliographical consultation on studies carried out on the seed subsector, including the guiding instruments for the agricultural sector, followed by a participatory and inclusive public consultation.

Data collection was through focus group discussions of thematic areas of the seed chain, interviews involving direct and indirect stakeholders in the seed chain, which includes the public sector (regulators, researchers/breeders, agricultural extension, academic institutions and central and local bodies agriculture sector) and private sector (Seed companies and retailers, academic institutions), civil society, cooperation partners, and Agencies that support the seed subsector including USAID, AGRA, FAO, SPEED, UNPSB, and others.

The drafts of the strategies were reviewed by the Ministry of Agriculture, with the involvement of groups representing the public and private segments of the seed chain and followed by approval after validation in workshops in which

contributions from interested parties were integrated. SeedSAT's various observations and findings provided a context and timetable for establishing new strategies for seed systems in Burkina Faso, Mali, Mozambique, Rwanda, and Tanzania, along with an investment plan corresponding to the strategies' key drivers.

2. Consultancy on Seed Policy Review- Burundi, Cote d'Ivoire, Sierra Leone, and Togo

SSG and TASAI received a total grant amount of US$199,547 from AGRA (Alliance for a Green Revolution in Africa) to carry out seed policy review for Burundi Cote d'Ivoire, Sierra Leone, and Togo. The overall objective of the assignment was to review the seed policies and laws of these countries and identify gaps and bottlenecks in the policy environment that hinder the development of their seed systems. The assignment was scheduled to be carried out over a period of six months, from September 2024 to February 2025.

Scope of work

1. Scoping assessment on the status quo of seed policies, regulatory frameworks, institutional arrangements and capacities in Burundi, Côte d'Ivoire, Sierra Leone, and Togo.
2. Design mitigation strategies and recommend required support from the Ministry of Agriculture in Burundi, Côte d'Ivoire, Sierra Leone and Togo on seed policy development, implementation strategy, analysis, and monitoring.
3. Design institutional operational structure with functional roles, hierarchy, and delivery mechanism with budget (a flagship for policy analysis and monitoring).
4. Undertake consultations and dialogue on the finalization of draft phytosanitary law and regulations, seed law and regulations. Where there are laws, regulations and policies in place, review to ensure that the seed law covers the plant variety protection and plant breeders' rights.

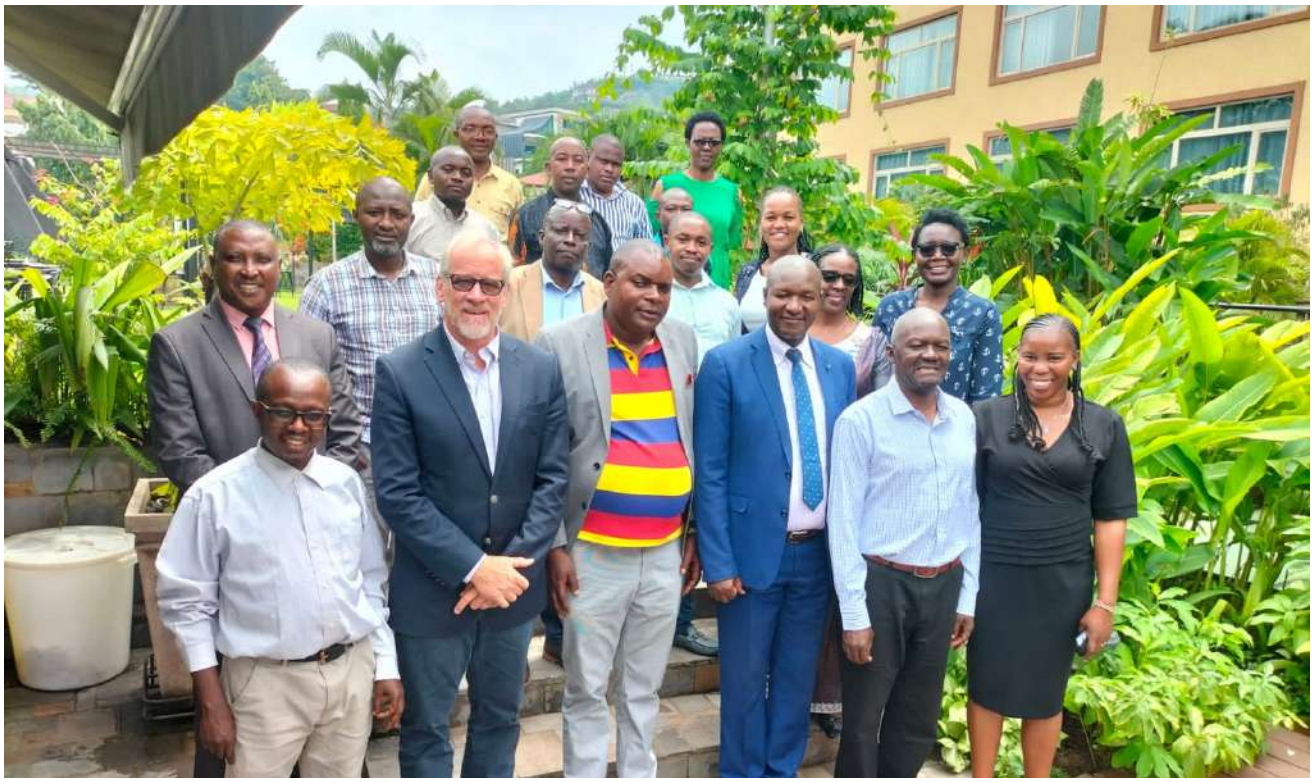

Figure 23: Seed policy stakeholders meeting participants in Burundi, 5th December 2024

5. Support establishment of a more functional policy analysis department within the Ministry of Agriculture and capacity building of staff in policy formulation, implementation, analysis, and monitoring.

6. Conduct a field visit to Burundi, Côte d'Ivoire, Sierra Leone, and Togo to validate the scoping study work. In collaboration with the Seed Regulatory Agencies and the Ministry of Agriculture, hold a meeting with the seed stakeholders in order to take stock of the relevant ongoing work and recommend the best approaches.

Method and Approach

SSG is responsible for the assignment in Burundi and Togo, while TASAI is responsible for Côte d'Ivoire and Sierra Leone. The assignment is being carried out in three phases: the Preliminary Assessment Phase, the Country Engagement Phase, and the Validation Phase. Phase 1 and Phase 2 of the assignment have been completed, and the team is currently conducting Phase 3.

Phase 1: Preliminary assessment phase

The objectives of this phase were to (i) collate and synthesize all available relevant information for the assignment, and (ii) identify missing data that needs to be collected during Phase 2. The activities included:

- An inception meeting with AGRA to discuss and agree on the understanding of the assignment and the proposed approach.
- A comprehensive desk review of three key aspects of the work.
- Assessment of the status of seed policy instruments for each country.
- Review of the institutional arrangements and capacities of seed regulatory agencies/government departments in charge of seed sector development.
- Review of the country's seed law to assess the status of plant variety protection instruments.

Figure 24: Seed policy review meeting with seed systems stakeholders at Kiriri hotel in Burundi

Phase 2: Country engagement phase

The objectives of this phase were to (i) introduce the assignment to the relevant government agencies, (ii) collect information to fill the data gaps identified in Phase 1, and (iii) present the preliminary analysis for stakeholder feedback.

The information was collected through visits to the relevant agencies/departments by the consultant and/or through the seed sector workshop where key institutions were invited to share information on any outstanding issues. The key activities included:

- Data collection from key seed sector stakeholders informed by the gaps identified in Phase 1.
- Workshops with Ministry of Agriculture and other relevant stakeholders to (i) introduce the project to key stakeholders, (ii) present the findings of the scoping report of the respective country to the seed sector stakeholders, (iii) receive presentations from stakeholders on relevant issues. The seed policy stakeholders' meeting for Burundi was convened on December 5th, 2024, while the meeting for Togo was held on December 11th, 2024.
- Analysis and synthesis of information gathered and drafting country deliverables.

Phase 3: Validation Phase.

The objective of this phase was to present the assignment's outputs to the stakeholders for their feedback and validation. By December 2024, the team was implementing this phase, and the activities included:

- Convening a stakeholder validation workshop to present and discuss findings, mitigation measures, and recommendations presented in each target country's seed policy analysis and monitoring assessment.
- Finalizing the project deliverables using feedback from validation meeting and sharing with AGRA and country stakeholders.
- Preparing final Narrative Report for AGRA summarizing project progress, achievements, and lessons learnt.

3. An Assessment of the Sustainable Seed Supply Systems of Guinea-Bissau

In April 2024, a team of agricultural experts from Seed Systems Group (SSG) and the World Food Programme conducted an analysis of Guinea-Bissau's seed supply system. The aim of the study was to determine the current status of access to high-yielding, climate resilient seed among smallholder farmers of Guinea-Bissau, and to formulate a strategy to sustainably bring such seed within their reach. For this undertaking, the team employed an abbreviated version of the SeedSAT analysis framework which employs

Figure 26: INPA-Contuboel technical team with Joe DeVries, SSG, and Danilson Carlos, WFP

Figure 25: Seed laboratory director, Ms. Cia N'Queba (center), and technical staff.

177 indicators grouped within eight themes, including:

a. Crop Breeding, Variety Release and Maintenance

b. Early Generation Seed Production and Supply

c. Commercial Production of Quality Seed

d. Farmer Awareness and Participation in Adoption of New Crop Varieties

e. Seed Markets and Distribution

f. Policy, Legal and Regulatory Environment for Seed

g. National Seed Quality Assurance Agencies

h. National Seed Planning and Coordination Activities

Findings from the assessment

The analysis of the seed supply systems in Guinea-Bissau revealed that progress towards a functional seed supply system in Guinea-Bissau has faltered due to several reasons:

- National breeding teams and seed producers lack access to the most recent varieties of most crops; and,
- Guinea-Bissau's seed actors have not been facilitated to work together in a coordinated manner. Applied agricultural research is currently on hold in Guinea Bissau due to lack of funds. Officials in the Ministry of Agriculture of Guinea Bissau have previously called for help from regional bodies such as CORAF for support to help rebuild the country's agricultural research system, indicating a critical weakness in developing the country's seed system: there is a lack of access to improved varieties.

a) Crop Breeding, Variety Release and Maintenance

There has been no recent research in Guinea-Bissau on improved varieties of maize, sorghum, millet, cowpea, groundnut, or cassava. Nevertheless, many recently-developed varieties of these crops are available from neighboring countries with active national breeding programs for these crops, including Mali, Senegal, Sierra Leone, and Ghana (AGRA, 2018).

A brief, crop-by-crop analysis of the current status of crop varieties relevant to Guinea-Bissau is shown below.

b) Early Generation Seed Production and Supply

Early generation seed production and supply in Guinea-Bissau is currently managed through agreements between INPA crop specialists and private seed producers. At present, the focus of EGS production is limited to rice.

c) Commercial production of quality seed

There are no formally constituted private seed companies operating in Guinea-Bissau, and no official statistics on seed production.

d) Farmer Awareness and Participation in Adoption of New Crop Varieties

There is no public extension service in Guinea-Bissau, hence farmer outreach is mostly undertaken by NGOs funded by various donor agencies, and through the activities of several internationally funded development projects. Such organizations can be effective in transmitting messages to farmers, provided they: 1) have clear messages and technologies which farmers find useful; and 2) can link farmers' interest to suppliers. Private seed companies also can be effective at promoting their own seed and operate their own shops.

e) Seed Markets and Distribution

Table 27: Current crop varieties used in Guinea-Bissau, with potential candidates for testing.

Crop Species	Current Varieties	Promising Candidate Varieties	Sources
Rice (Irrigated)	Sabe-12, Nerica L-19, Sahel21, Bani-Malo	IR 841, AGRA-CRI-LOL-2-27, Ex Baika	Africa Rice, CRI (Ghana) Ghana
Rice (Lowland, non-Irrigated)	Nerica L-19 Sub1	Arica 1, Sahel 317, IR 841	Africa Rice, IER (Mali)
Rice (Mangrove)	Yakasso, Kablack, Atanya	Arica 11, Sahel 177	Africa Rice
Maize	Tuxpeno, Amarelho Dentado	TZ-SR-W, TZ-SR-Y, Opeaburo (hybrid), Legacy 26 (hybrid)	INPA, IITA, Legacy Seed Co (Ghana), Mukushi Seeds (Zimbabwe)
Cowpea	Unknown	Zamzam, Komcalle, Tiligre	Ghana (Legacy Seed Co), Burkina Faso (INERA)
Sorghum	Local land races	Grinkan, Soumba, Soubatimi, Acar 1, Sorvato 8	IER (Mali), ITRA (Togo)

The WFP-SSG mission saw evidence of current commercial supply of improved seed through the companies Agro Guinee Dunya of Contuboel and Balde Sintchro, SARL of Bissau. Undoubtedly, other businesspeople are also involved in seed commerce as well as we also received credible reports of other commercial importers of seed from Senegal. Balde Sintchro SARL imports seed of maize, rice, and sorghum from Senegal for sale in Guinea-Bissau. Several trained seed producers also indicated that while their primary market is "seed projects", they sell their remaining seed to local farmers.

f) Policy, Legal and Regulatory Environment for Seed

Guinea-Bissau has the basic policy, legal, and regulatory instruments in place to oversee seed supply systems, although some of these may not currently be in force or active due to lack of investment in a domestic seed market, and lack of effective demand from farmers. There is, however, a national committee charged with oversight of agriculture development which also deals with seed. The SSG/WFP mission met with this committee and found it to be staffed with highly knowledgeable individuals with an active interest in issues related to crop research and seed supply. There is also a well-equipped seed lab staffed by a team of approximately eight people.

g) National Seed Quality Assurance Agencies

In Guinea-Bissau, seed quality assurance is the responsibility of the *Laboratorio Nacional de Sementes*, which operates a laboratory in Bissau and employs a total of eight seed inspectors based in the regions. While these eight inspectors plus laboratory technicians are capable of ensuring seed quality, they lack appropriate equipment and training to provide adequate services.

h) National Seed Planning and Coordination Activities

The Ministry of Agriculture and Rural Development of Guinea-Bissau is staffed with a full requisite of senior officials, as well as support staff. In addition, the Ministry has assembled a standing committee of senior officials from public and civil society to oversee agricultural development initiatives, known as the *Comité técnico de seguimento do projecto*, which, in the absence of other bodies, can provide oversight and technical advice for seed systems development.

The findings of the WFP/SSG assessment of seed supply systems in Guinea-Bissau have shown that a functional seed system is feasible, provided one or more donor institutions provide support, and an implementing agency with extensive experience in the discipline of seed systems is available to manage it.

The 2024 Annual Learning Forum

Figure 27: Deligates of Annual Learning Forum at Trademark Enaki Hotel, Nairobi

Seed Systems Group and Farm Inputs Promotion (FIPS-Africa) successfully hosted the 2024 Annual Learning Forum from November 19th to 21st at Trademark Enaki Hotel in Nairobi, Kenya.

The workshop objectives:

1) Learning and Networking for Enhanced Collaboration and Delivery

- To provide a space for sharing and learning among grantees, implementers and other stakeholders.
- To enable participants to showcase their work, lessons learnt, progress made, gaps/challenges, and opportunities
- To explore opportunities for on-going peer-to-peer learning that harnesses mutual inspiration and promotes continuous sharing, learning, testing and adaptation of good practices – towards a formalized, functioning Community of Practice

2) Investor Community Engagement

- To showcase to investors the work done to date, outcomes and the impacts, and share challenges and gaps, including in funding levels and models (e.g., the disconnect between the short-term funding and the sustained level of effort required to take interventions to tipping points).
- To provide an opportunity for investors to engage directly with grantees and implementing partners so as to better understand the context, progress and challenges on the ground, including the major investment gaps that are constraining delivery of impact at scale, and the need to improve alignment of investments to deliver effectively and efficiently.

The workshop brought together key stakeholders, including seed companies, public crop breeders, agro-dealers, and both public and private extension service providers from

15 countries where SSG, FIPS and partners operate. This diverse group of implementers, researchers, and farmers exchanged insights on building sustainable, farmer-centred seed systems tailored to local contexts.

The forum noted that farmer demand for seed is growing rapidly, driven by increased awareness from the VBA/small seed pack campaigns. However, challenges persist, including seed supply limitations, market distortions caused by free seed distributions, and the lagging development of retail seed systems. To address these, the workshop emphasized the urgent need for increased investments in local seed enterprises and capacity building for seed companies.

Priority intervention areas

The workshop identified several priority intervention areas essential for strengthening seed systems. A key challenge identified was the **limited supply of Early Generation Seeds (EGS)**, with National Agricultural Research Systems (NARS) unable to meet demand from private seed companies. Advocating for sector liberalization to allow private companies to produce basic seed was seen as a critical step. There was also a strong emphasis on **investing in local seed enterprises** to scale operations, improve production capacity, and ensure the availability of high-quality seeds in local markets. Additionally, **expanding farmer awareness** beyond the small seed pack model, using diverse media channels like radio, WhatsApp, and social media was deemed essential. Finally, ensuring the **sustainability of the Village-Based Advisor (VBA) model** was highlighted, with continuous training, activity diversification, and linking VBAs to seed companies to create semi-commercial suppliers being key to its long-term success.

Insights from the investor community

The conversation with the investor community provided key insights into the future of seed systems development. It emphasized the importance of long-term, adequately funded

Figure 28: A visit to Dryland seed, a woman-led seed company, during the SSG-FIPS Annual Learning Workshop

initiatives to build resilient and sustainable seed systems. It also highlighted the need for public-private partnerships to drive scale, improve infrastructure, and ensure that farmers receive quality seeds in a timely manner. Additionally, it stressed the importance of innovation in seed production techniques and distribution models to overcome the challenges posed by climate change and market disruptions. Governments are also shifting their focus away from dependence on imported seeds due to high transit costs and the challenges posed by climate risks like drought, as well as market risks in exporting countries. This transition presents an opportunity for local enterprises to thrive and meet domestic seed demand.

The investor community organizations represented at the forum were IFAD (International Fund for Agricultural Development), WFP (World Food Programme), Seeds of Change, SIDA (Swedish International Development Cooperation Agency), AGRA (Alliance for a Green Revolution in Africa), USAID (United States Agency for International Development), CIMMYT (International Maize and Wheat Improvement Center), and One-CIGAR (the Consultative Group on International Agricultural Research).

The Forum concluded with discussions on the next steps to strengthen seed systems, including: **i) Strengthening the VBA model** – specifically, the need for continued training and diversification of VBA activities, ensuring they are operational year-round and sustainable; **ii) Establishing an effective Community of Practice (CoP)** – a decision was made to formalize a CoP to foster on-going peer-to-peer learning, knowledge sharing, and continuous improvement across the agricultural sector. It was suggested that an initial step towards establishment of a CoP was the creation of a WhatsApp sharing platform, and formalization of regular learning workshops and joint activities, with ongoing support from key stakeholders like seed companies and research organizations.

Figure 29: KALRO field visit during the SSG-FIPS Annual Learning Workshop

Key Challenges Faced in 2024

Delayed disbursement of funds by some donors delayed start of some projects leading to missed planting seasons in some regions. For example, the delay in the disbursement of funds by IFAD for the *Sustainable Seed Systems for Drought-Response in the Greater Horn of Africa project* resulted in missed planting seasons during the 2024 Deyr season in Somalia, the only planting season in Eritrea, which starts in June, and the June planting season in South Sudan.

Partners' delays in fulfilling their required actions and obligations had a negative impact on the progress of some projects. For example, delays in grant-making due to slow responses from some partners led to setbacks in commencing key activities, particularly those dependent on the rainy season. Additionally, a lack of prompt reporting of activities by some partners led to delays in submission of some donor reports.

Limited access to new variety seeds from NARS and seed companies. Obtaining seeds of well-known publicly bred best varieties from different NARS and seed companies has been challenging, highlighting a bottleneck between breeding and seed availability. Some seed companies using publicly bred hybrid maize lack facilities to maintain parental lines and must request parental seeds from organizations such as CGIAR almost annually, which has become overwhelming.

Erratic rainfall and dry spells in some regions significantly affected the performance of seeds on the demos and seed multiplication stations.

Poor roads and telecommunication infrastructure posed challenges in mobilization and accessing remote farming villages, for example in South Sudan.

Lessons Learned in 2024

A number of lessons were drawn from the implementation of projects in 2024, these are:

- The resilience of certain crop varieties to erratic weather conditions demonstrated the importance of selecting climate-resilient varieties.
- Conducting variety trials provides essential data for refining future efforts.
- Close collaboration with seed production experts improves troubleshooting and enhances production outcomes.
- Timely distribution of seeds and coordination with local partners strengthen program delivery.
- The marketing strategy for quality seeds should focus on influencing farmers' behavior through awareness campaigns, practical demonstrations, and promotional activities to encourage rapid adoption.
- Correct farm input use and product knowledge are essential for project success, making farmer training on product use and good agronomic practices crucial for adopting new varieties and enhancing productivity.
- Working with model farmers in hybrid seed production is crucial as their expertise, credibility, and adherence to best practices ensure the production of high-quality seeds and inspire wider adoption among farming communities.
- Engaging all stakeholders, including government bodies, research institutions, private companies, and community leaders early in the project, is critical in gaining buy-in and support for project activities. This ensures smoother coordination and facilitates quicker responses to challenges. For example, timely coordination with seed companies is crucial for avoiding delays in distribution.

Funding Prospects In 2025

Here are potential funding opportunities in 2025 that SSG is exploring:

1. World Bank seed systems study in Central African Republic - US$49,000.
2. World Food Programme-Guinea-Bissau - US$350,000/3 years.
3. World Bank - US$15 m/5 years for seed systems development in Somalia.
4. African Development Bank - US$20 m/5 years for seed systems development in Somalia.
5. Government of the Kingdom of Saudi Arabia - US$65,000/2 months for seed systems analysis in Saudi Arabia.

Summarized Africa-Wide SSG Outputs as of December 2024

Country	Variety Trials Conducted	Varieties Released	Farmers Reached	Small Packs Supplied	VBAs Recruited and Trained	Early Gen. Seed (MT)	Certified Seed Production (MT)	Training Sessions Sponsored	Agro-dealers Trained	M.Sc. Fellow-ships. Awarded
Burundi	5	-	403,021	632,400	216	10.9	69.5	6	-	-
Cote D'Ivoire	-	-	1,002	13,000	247	6	-	1	10	-
Djibouti	12	4	982	6,000	42	2 kg	10 kg	2	-	-
DR Congo	14	2	113,000	382,152	100	1.9	102	10	28	-
Eritrea	7	1	24,930	56,000	919	3.8	941	6	-	6
Kenya	-	-	20,895	88,788	144	0.5	155	1	-	-
Ghana		-	701	1,205	27	0.5	3.4	2	-	-
Madagascar	84	28	14,112	19,791	268	12.1	136.8	5	-	-
Malawi	-	-	19,037	20,800	200	7.0	40.1	1	-	-
Senegal	-	-	14,017	17,000	50	6	-	2	-	-
Sierra Leone	-	-	16,233	40,000	200	-	-	1	6	-
Somalia	96	3	132,455	380,784	1,734	2	1612.1	10	125	4
South Sudan	10	15	52,045	174,230	506	6.7	1,053	6	-	-
Togo	40	10	38,963	34,433	276	6.8	132.2	6	16	-
TOTAL	**268**	**63**	**851,393**	**1,866,583**	**4,929**	**64.2 MT**	**4,245.1 MT**	**59**	**185**	**10**

Summary of Financial Report 2024

	Grants Received	AMOUNT
1	IDRC	146,037
2	AGRA (New Countries)	655,264
3	AGRA - Consultancy	150,700
4	IITA - USAID	1,000,000
5	ILCI CORNELL (Sustainable adoption of improved cowpea in Malawi)	170,748
6	ILCI CORNELL (Caribbean-Atlantic seed systems initiative)	18,748
7	CIMMYT (Haut -Katanga)	147,000
8	CIMMYT (VACS)	617,556
9	World Bank - MoFFGS	997,306
10	SFF (2024)	450,000
11	IFAD	280,480
12	Vanguard charitable	20,000
13	WFP Guinea Bissau	34,900
14	SAHEL Consulting	12,568
	Total Income	4,701,306

	Expense	2024 YTD Actual
1	5000 · Personnel Salaries/Benefits	472,223
2	6000 · Professional Fees	40,768
3	6200 · Program Implementation Investment	3,072,359
4	7000 · Travel & Meetings	375,619
5	7200 · Operational Costs	186,813
6	8000 · Knowledge Mgt/Communication	64,555
	Total Expense	4,212,336

	Net surplus / deficit (relates to pending Grants disbursements to partners for programs ending March, April, May and June 2025)	488,970

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