Accelerating Agriculture and Agribusiness in South Sudan for Enhanced Economic Development (A3-SEED)

Annexes to the 2022 Annual Narrative Report

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IFDC A3SEED KIT Royal Tropical Institute

Contents

Annex A. A3-SEED Approved Project Indicator Changes 2022

Original Indicator	Proposed Indicator Changes	Comments
Number of people with improved food intake	Number of people with improved food intake	
Number of small-scale food producers that progressively realize a living income	Number of farmers realizing an increase in income from surplus production of targeted crops	Living income is a big concept; measuring it may not be feasible for this project. We recommend replacing it with "Number of farmers realizing an increase in income from surplus production of targeted crops," which not only is a measurable indicator, but gives clear attribution to the project.
Number of small-scale producers that progressively decrease the yield gap	Number of small-scale producers that progressively decrease the yield gap	No changes
Number of female small-scale food producers that progressively empower: WEAI	Number of female small-scale food producers who report being empowered	Measuring empowerment using WEAI is out of scope for this project, as there are no specific direct women empowerment interventions that can enable the project to achieve this indicator. Women empowerment in the context of A3-SEED will be measured using the following indicators: 1. Women's ability to make decisions 2. Women's ability to access and have control over resources 3. Women's participation in leadership.
Number of small-scale food producers whose livelihood became more resilient to shocks: PPI, RHoMIS, CRA, other (see overview by ODI)	Percentage of small-scale food producers who became more resilient to shocks	Measuring livelihood resilience is too big and out of scope for this project; we propose to measure resilience to shocks that suits the context of the project activities.
Number of hectares of farmland under >2 conservation practices	Number of hectares of farmland under >2 conservation practices	No changes
Number of hectares of farmland that agroecologically became more resilient to shocks: Soil and Biodiversity indicators	Percentage of hectares of farmland that agroecologically became more resilient to shocks: Soil and Biodiversity indicators	We are recommending dropping this indicator. This is because application of GAPs and resilience to shocks are already tracked in indicator above. Additionally, measuring soil biodiversity is not only too costly but also out of scope for the project, and attribution may not be established.

Original Indicator	Proposed Indicator Changes	Comments
Results Area 1. Seed sector and input sector development		
Percentage of seed producers pre-ordering EGS against payment of an advance	Percentage of seed producers pre-ordering EGS against payment of an advance	No changes
Number of seed companies engaging in EGS production	Number of seed companies engaging in EGS production	No changes
Increased volume of EGS produced	Volume of EGS produced (in metric tons)	Proposing to rephrase the indicator to track total volume of EGS produced; the change will automatically show in the trend analysis, whether increase or decrease.
Number of existing seed companies with tripled seed-derived turnover	Number of existing seed companies with additional seed-driven turnover	The word “tripled” in the indicator conditions the measurement to only those that can reach the triple seed-driven turnover. This is misleading, as impact can be realized differently by different seed companies at all levels. Tracking additional turnover is more appropriate and unbiased.
Number of new seed companies reaching a turnover of at least 50,000 USD	Number of new seed companies that are emerging	This indicator should measure systematic change and check whether there are new companies emerging because of the project. This is already a good enough indicator of impact at the systems level; tracking turnover is not only impossible but also unnecessary for the new unsupported seed companies.
Number of community-based seed producers groups reaching an annual seed related turnover of more than 10,000 USD	Number of outgrower groups with additional annual seed-related turnover	We recommend changing the word "Community based seed producer groups" to "outgrower groups" and not to tag the indicator to specific turnover. This limits the indicator measurement to consider only those that earn at least 10,000 USD, and there is no concrete information on average turnover outgrowers used to achieve as of before.

Original Indicator	Proposed Indicator Changes	Comments
Number of individual private seed producers with an annual seed-related turnover of more than 10,000 USD	Number of individual outgrowers with additional annual seed-related turnover	We recommend changing the word "Individual Private seed producers" to "Individual outgrowers" and not to tag the indicator to specific turnover. This limits the indicator measurement to consider only those that earn at least 10,000 USD, and there is no concrete information on average turnover outgrowers used to achieve as of before.
Percentage of STASS costs covered through direct member contributions	Percentage of STASS costs covered through direct member contributions	No changes
Number of STASS local chapters established	Number of STASS local chapters established	No changes
Cost of local seed quality assurance as a percentage of total seed price	Cost of local seed quality assurance as a percentage of total seed price	No changes
Number of institutional buyers accepting local quality assured seed	Number of institutional buyers purchasing local quality assured seed	No changes
Percentage of relief seed procured nationally, coordinated through STASS	Percentage of seeds produced locally procured by relief agencies through STASS coordination	Information on overall relief seeds procured nationally is not easily accessible or unavailable as relief agencies are scattered across the country and any procurement in some parts of the country may not be easily tracked by STASS. It is feasible to track and measure the percentage of seeds produced locally procured by relief agencies through STASS coordination.
Results Area 2. Climate-adaptive and eco-efficient farming		
Number of farmers trained directly on quality seed use and associated good agricultural practices	Number of farmers trained directly on quality seed use and associated good agricultural practices	
Number of farmers trained indirectly on quality seed use and associated good agricultural practices	Number of farmers trained indirectly on quality seed use and associated good agricultural practices	
Number of farmers adopting at least two offered new technologies	Number of farmers adopting at least two offered new technologies	

Original Indicator	Proposed Indicator Changes	Comments
Increase of yields of targeted crops by beneficiaries	Percentage of farmers reporting increase in targeted crop yields	Proposed indicator is more clear, precise, and SMART
Income increases from surplus production of targeted crops for direct beneficiaries	Percentage of farmers reporting additional income from surplus production of targeted crops	Recommend dropping this indicator since income for beneficiaries is already considered in the outcome indicator O1.2.
Number of farmers exposed to low-tech ICT4Ag solutions	Number of farmers exposed to low-tech ICT4Ag solutions	
Number of farmers reached with recommendations (see 2.1)	Number of farmers reached with evidence-based soil fertility management recommendation	Proposed indicator is SMART.
Number of farmers reached with recommendations (see 2.1)	Number of farmers reached with evidence-based crop protection recommendations	Proposed indicator is SMART.
Results Area 3. Inclusive agribusiness		
Number of ABCs established	Number of ABCs established	
Number of agricultural actors benefitting from ABC establishment	Number of agricultural actors benefitting from ABC establishment	
Number of agro-input suppliers (min 50% youth, 50% women) engaged in inclusive agribusiness	Number of agro-input suppliers (min 50% youth, 50% women) engaged in inclusive agribusiness	
	Number of agro-dealers with additional seed-related turnover	We are recommending adding an indicator here that will measure turn over of Agro-dealers.
Number of new agro-dealers established with an annual turnover of more than 6,000 USD	Number of new agro-dealers emerging because of the project	We are recommending that this indicator should measure crowding in of other new agro-dealers because of the project.
Number of new jobs created by agro-dealers	Number of new jobs created along the seed value chain	We recommend measuring full-time equivalents (FTEs) across the entire seed value chain, not only the jobs agro-dealers will create. FTE takes into account casual labor created to earn income.

Original Indicator	Proposed Indicator Changes	Comments
Number of farmers introduced to women economic empowerment module	Number of farmers introduced to women economic empowerment module	
Number of women graduated from the agri-career development trajectory	Number of women graduated from the agri-career development trajectory	
Number of women who have established a business with at least 6,000 USD annual turnover	Number of women-owned small scale agribusinesses with additional annual turnover	We recommend removing the condition of reaching annual turnover of 6000 USD but rather measure additional turnover that considers the counterfactual.
Number of youths graduated from the agri-career development trajectory	Number of youths graduated from the agri-career development trajectory	
Number of youths who have established a business with at least 6,000 USD annual turnover	Number of youths owned small scale agri-business with additional annual turnover	We recommend removing the condition of reaching annual turnover of 6000 USD but rather measure additional turnover.
Number of farmers benefitting from access to input support	Number of farmers benefitting from access to input support through VSLAs	Recommend making the indicator more specific by tracking input support through VSLAs. VSLAs will be trained and supported with start-up kits by IFDC, which gives a clear attribution to the project.

Annex B. A3-SEED Project Output Indicator Performance 2022

S/No.	Results Statement	Indicator	Overall Project Performance				Ongoing Monitoring Reporting Period 2022			Comments
			Baseline	Target	Actual	% of Target vs Actual	Target	Actual	% of Target vs Actual	
Results Area 1. Seed sector and input sector development										
1.1	Sustainable EGS supply	% of seed producers pre-ordering EGS against payment of an advance	0	50%	6	60%	4	6	60%	Of the 10 seed companies being supported by the A3-SEED project, 6 were able to place a pre-order for the supply of foundation seeds.
		No. of seed companies engaging in EGS production	0	2	1	50%	2	1	50%	1 seed company engage in the production of foundation seeds.
		Volume of EGS produced (in metric tons)	0	200	65	33%	66.5	65	98% %	Total of 65 mt of maize foundation seeds produced by PRO Seed Limited in 2022.
1.2	Strengthen private seed companies	Number of existing seed companies with additional seed-driven turnover		8	10	125%	8	10	125%	All 10 seed companies being supported have started realizing additional seed-driven turnover compared to previous years. However, the overachievement is that the project target was 8 seed companies for QDS production and 2 for EGS production is different from actual on the ground, where all 10 seed companies are. There is increase in production of QDS among all the seed companies under the A3-SEED co-funding.
		Number of new seed companies that are emerging.		5	2	40%	5	2	40%	Two seeds companies have been registered by STASS.
1.3	Develop local commercial seed production	Number of outgrower groups with additional annual seed related turnover		40	16	40%	40	16	40%	16 groups of outgrowers with 740 members (345 male and 395 female) out of 40 groups of outgrowers with 1,672 (683 female and 989 male) members have successfully sold their seed production to seed companies. It is important to note the fact that there was no control by the project on the number of outgrowers each seed company could have to meet the target of 40.

S/No.	Results Statement	Indicator	Overall Project Performance				Ongoing Monitoring			Comments
			Baseline	Target	Actual	% of Target vs Actual	Reporting Period 2022			
							Target	Actual	% of Target vs Actual	
		Number of individual outgrowers with additional annual seed-related turnover		40	442	1105%	40	442	1105%	442 individual outgrowers (170 female and 272 male) out of a total of 737 individual outgrowers (284 female and 483 male) have sold their seeds production to seed companies. This overachievement came since there was no control by the project on the number of outgrowers each seed company could have to meet the target of 40.
1.4	Strengthen the Seed Trade Association	% of STASS costs covered through direct member contributions		25%	2,500	7%	25%	2500	7%	The actual total expenses for STASS activities were 35,385 USD out of a budget of 66,625 USD and the members contribution was only 2,500 USD from 5 members, accounting for 7% of the total expenses.
		No. of STASS local chapters established		4	2	50%	2	2	100%	All 2 targeted for the year were established.
1.5	Decentralized seed quality assurance	Cost of local seed quality assurance as % of total seed price		10%	0	4%	10%	10%	4%	The cost of quality assurance contributes to about 40% of the total final seed price.
		No. of institutional buyers accepting local quality assured seed		5	1	20%	5	1	20%	According to report from STASS, 1 institutional buyer (NGO) bought seeds locally through their coordination. Other institutions, such as government, schools, churches, etc., did not buy seeds.
1.6	Promote domestic seed procurement by relief and development effort	% of seeds produced locally procured by relief agencies through STASS coordination.		50%	161.9	6.2%	50%	161.9	6.2%	Based on production and sales reports for the first season, only 6.2% (161.9 mt) of the seeds produced (2,625.4 mt) were sold to humanitarian agencies through coordination by STASS.

S/No.	Results Statement	Indicator	Overall Project Performance				Ongoing Monitoring			Comments
			Baseline	Target	Actual	% of Target vs Actual	Reporting Period 2022			
							Target	Actual	% of Target vs Actual	
Results Area 2. Climate-adaptive and eco-efficient farming										
2.1	Scaling quality seed use and good agricultural practices through private sector-led extension	No. of farmers trained directly on quality seed use and associated good agricultural practices	0	50,000	7,307	15%	20,000	9,925	50%	Number of people reached through extension support services provided by the seed companies, such as demo plots activities, and direct training of farmers.
		No. of farmers trained indirectly on quality seed use and associated good agricultural practices	0	50,000	29,228	58%	20,000	29228	146%	This indicator is overachieved for only 2022 because the target allocated for the year (20,000) is less than that achieved for 2022 (29,228). However, this equals to an overall performance of 58% since the project targets 50,000 farmers and only 29,228 farmers were reached with GAPs.
		No. of farmers adopting at least 2 offered new technologies	0	50,000	0	0%	20,000		0%	This indicator is pending assessment in 2023 because there is no record yet on farmers who have bought, planted, and harvested grains using the QDS. We expect to get this data in the middle of 2nd season this year.
		% of farmers reporting increase in targeted crop yields	0	50,000	0	0%	10%		0%	This indicator is pending assessment in 2023 because there is no record yet on farmers who have bought, planted, and harvested grains using the QDS. We expect to get this data in the middle of 2nd season this year.
		% of farmers reporting additional income from surplus production of targeted crops	0	50%	0	0%	50%		0%	This indicator is pending assessment in 2023 because there is no record yet on farmers who have bought, planted, and harvested grains using the QDS. We expect to get this data in the middle of 2nd season this year.
2.2	ICT4Ag solutions to support private sector led extension	No. of farmers exposed to low-tech ICT4Ag solutions	0	100,000	29633	30%	20,000	29633	148%	This indicator has been over achieved due to use of various channels of extension messaging

S/No.	Results Statement	Indicator	Overall Project Performance				Ongoing Monitoring			Comments
			Baseline	Target	Actual	% of Target vs Actual	Reporting Period 2022			
							Target	Actual	% of Target vs Actual	
2.3	Develop evidence-based soil fertility management recommendations	Number of farmers reached with evidence-based soil fertility management recommendation	0	50,000	7,307	15%	10,000	7,307	73%	The indicator has performed at 73%, given a reach of 7,307 farmers out of the 10,000 farmers targeted for 2022. However, this contributes to only 15% of the performance of the project, with 50,000 targeted to be reached at the end of the project.
2.4	Develop evidence-based crop protection recommendations	Number of farmers reached with evidence-based crop protection recommendations	0	50,000	7,307	15%	10,000	7,307	73%	The indicator has performed at 73%, given a reach of 7,307 farmers out of the 10,000 farmers targeted for 2022. However, this contributes to only 15% of the performance of the project, with 50,000 targeted to be reached at the end of the project.
Result Area 3. Inclusive agribusiness										
3.1	Establish local agribusiness clusters of smallholders, seed producers, input dealers and food traders	Number of ABCs established		8	13	163%	8	13	163%	4 new ABCs were formed, and 9 existing ones were reactivated, leading to a total of 13 ABCs. This overachievement is a result of synergy between A3-SEED and IFDC's 2SCALE program, which had established 9 ABCs in the same hubs of A3-SEED project implementation. Seed stakeholders under the project joined those existing ABCs.
		No. of agricultural actors benefitting from ABC establishment		6,000	2554	43%	6,000	2554	43%	This indicator is pending assessment in 2023 by determining how ABC members are benefiting.
3.2	Facilitate last-mile distribution through private seed and input dealer network	Number of agro-input suppliers (min 50% youth, 50% women) engaged in inclusive agribusiness		100	33	33%	25	33	132%	The target of 25 for 2022 has been exceeded by 5 more, with a total of 30. However, this is less than the overall project target of 100 agro-dealers.
		Number of agro-dealers with additional seed-related turnover		100	0	0%	30	0	0%	Pending assessment in 2023.

S/No.	Results Statement	Indicator	Overall Project Performance				Ongoing Monitoring			Comments
			Baseline	Target	Actual	% of Target vs Actual	Reporting Period 2022			
							Target	Actual	% of Target vs Actual	
		Number of new agro-dealers emerging because of the project		5	3	60%	3	3	100%	3 new agro-dealers were established in 2022.
		Number of new jobs created along the seed value chain		400	107	27%	100	107	107%	Target for 2022 of 100 new jobs has been overachieved by 7 more, with a total of 107. This is because jobs created must also consider full-time equivalents of the casual workers hired by the stakeholders in the project. However, this is achievement of 107 jobs created in 2022 is less than the overall project target of 400 jobs.
3.3	Promote women and youth entrepreneurship in seeds, inputs, and food aggregation and marketing	No. of farmers introduced to women's economic empowerment module		50,000	11436	23%	10,000	11,436	114%	The overachievement of 114% (11,436) in 2022 is due to the lower target (10,000) allocated for the year; however, this only contributes to 23% of the overall project target. The data reported here are the farmers that were trained on components of women's economic empowerment. However, further assessments will be conducted in 2023 after farmers have started using seeds to determine their empowerment levels based on the indicator definition.
		No. of women graduated from the agri-career development trajectory		400	0	0%	100	0	0%	No activities were done under this indicator in 2022.
		Number of women-owned small-scale agribusinesses with additional annual turnover		200	0	0%	25	0	0%	No activities were done under this indicator in 2022.

S/No.	Results Statement	Indicator	Overall Project Performance				Ongoing Monitoring			Comments
			Baseline	Target	Actual	% of Target vs Actual	Reporting Period 2022			
							Target	Actual	% of Target vs Actual	
		Number of youths graduated from the agri-career development trajectory		400	0	0%	100	0	0%	No activities were done under this indicator in 2022.
		Number of youth-owned small-scale agribusinesses with additional annual turnover					25	0	0%	No activities were done under this indicator in 2022.
3.4	Access to input support mechanisms with partners with finance mandate (smart-vouchers, climate-insurance, savings clubs)	Number of farmers benefitting from access to input support through VSLAs		25,000	4,384	18%	25,000	4,384	18%	VSLAs modalities to be introduced in 2023.
Result Area 4. Learning and capacity development										
4.1	Capacity building of local professional cadres	No. of local field experts trained		120	120	100%	120	120	100%	A total of 120 local field experts were trained; this includes agronomists, extension staff, agro-dealers, marketing staff, and sales agents.
		No of training curricula published and communicated to South Sudanese partners		4	4	100%	4	4	100%	4 training manuals were developed and shared with extension workers for seed companies and government extension workers in the areas of project operation. The training materials covered topics of ISFM, IPM, PHH, and weed management.
4.2	Share with and learn from existing experience in South Sudan	Lessons and recommendation on approaches, methods and materials used in South Sudan documented		4	2	50%	2	2	100%	2 knowledge-sharing events were conducted in 2022, bringing together the different project stakeholders such as the government, seed companies, processors, NGOs, and the donor community .

S/No.	Results Statement	Indicator	Overall Project Performance				Ongoing Monitoring			Comments
			Baseline	Target	Actual	% of Target vs Actual	Reporting Period 2022			
							Target	Actual	% of Target vs Actual	
4.3	Seed sector analysis & problem and opportunity analysis	Number of rapid targeted problem and opportunity analyses implemented in each intervention area: seed sector, input sector, intensification of production of target crops, women empowerment, youth employment		5	2	40%	1	2	200%	A deep-dive study was conducted on gender and youth knowledge gaps in the all 5 project hub locations. A research paper on seed aid has been jointly written by IFDC and KIT.
4.4	Targeted action research	Number of seed sector innovations initiated, analyzed, documented, and communicated		5	0	0%	1	0	0%	No action research undertaken in 2022.

Annex C. A3-SEED Project Contribution to FNS Output Indicator Performance 2022

S/No.	Results Statement	Indicator	Overall Project Performance	Ongoing Monitoring						Comments
			Baseline	Target	Actual	% of Target vs Actual	Reporting Period 2022			
							Target	Actual	% of Target vs Actual	
Results Area 1. Seed sector and input sector development										
Enabler 2.1	Strengthen private seed companies	# of seed companies engaged in inclusive agribusiness.	0	10	10	100%	10	10	100%	All 10 seed companies targeted by the project have been achieved.
Enabler 2.1	Develop local commercial seed production	# of commercial seed producers (outgrowers) engaged in inclusive agribusiness	0	80	3,953	0%	80	3953	4941%	This indicator looks at the total outgrowers engaged by the seed companies and the target of 80 is less than the total of 3,953 reached so far. This is because some seed companies are using both individual and group outgrowers.
1.2	Decentralized seed quality assurance	# of FNS- relevant knowledge institutions that perform better		Seed quality assurance body performs better		0%	0	1	Increase	This indicator is pending assessment of the capacities of seed inspectors in 2023. However, IFDC was able to train 21 seed inspectors and 7 lab technicians from the 5 hubs of project implementation.
4.1	Promote domestic seed procurement by relief and development efforts	# of reforms / improvements in major (inter)national FNS policies / laws / regulations		Reform of national relief seed procurement		0%	1	1	100%	A national knowledge-sharing event was conducted to advocate for support from stakeholders to buy locally produced seeds in South Sudan
Results Area 2. Climate-adaptive and eco-efficient farming										
B.x.1.1	Scaling quality seed use and good agricultural practices through private sector led extension	# of small-scale food producers directly reached		50,000	7,307	15%	20,000	9,925	50%	Number of people reached through extension support services provided by the seed companies, such as demo plots activities and direct training of farmers.
B.x.1.2		# of small-scale food producers indirectly reached farmland		50,000	29,228	58%	20,000	29228	146%	This indicator is calculated by estimating the number of farmers that have been reached through radio talk

S/No.	Results Statement	Indicator	Overall Project Performance	Ongoing Monitoring						Comments
			Baseline	Target	Actual	% of Target vs Actual	Reporting Period 2022			
							Target	Actual	% of Target vs Actual	
										shows, jingles, and other promotional activities that do not engage the farmers face to face or directly. This is done using standard estimation methods.
C.x.1.1	Hectares of farmland under >2 conservation practices:	# of hectares of farmland directly reached		42,000	0	0%	10,000	0	0%	This indicator is pending assessment in 2023.
C.x.1.2		# of hectares of farmland indirectly reached		42,000	0	0%	10,000	0	0%	This indicator is pending assessment in 2023.
Result Area 3. Inclusive agribusiness										
Enabler 2.1	Facilitate last-mile distribution through private seed and input dealer network	# of agro-input suppliers (min 50% youth, 50% women) engaged in inclusive agribusiness		100	33	**33%**	30	33	110%	The target of 30 agro-dealers to be engaged in 2022 was overachieved by 3 but this contributes to only one-third of the total project performance.
Result Area 4. Learning and capacity development										
Enabler OI 1.2	Capacity building of local professional cadres	# of FNS-relevant knowledge institutions that perform better		Federal and local Ministry of Agriculture performanc e improved		0%	0	0	0%	

Annex D. Stakeholder Matrix and Seed Sector Partner Mapping

Seed Sector Partner	Role in Seed Value Chain	Capacity	Capacity Gaps	Remarks
Ministry of Agriculture and Food Security (MAFS)	Policy and legislative framework	Formulate and adopt seed policies and regulatory frameworks. A seed policy was produced by SSD4SS and could be finalized and adopted.	Most of the agriculture- and seed-related policies are at the draft stage.	Finalization and adoption of the seed policy will guide sector development and transformation.
Department of Research, MAFS	Variety development	35 varieties released and 8 commercialized.	Trained and skilled breeders for priority crops. Functioning breeding programs or only multi-location trials of existing varieties?	
Department of Research, MAFS	Foundation (early generation) seed production	So far, MAFS has produced over 22.1 mt of foundation seed and sold all to the seed companies.	Volumes can be increased based on demand. Is demand known beforehand through some pre-order system or coordination of demand through a platform?	
Ministry of Agriculture and Food Security (MAFS)	Seed quality control on imported and locally produced seed	Laboratory infrastructure for seed tests (e.g., viability).	One central laboratory is functional; no decentralized laboratory infrastructure?	
Ministry of Agriculture and Food Security (MAFS)	Seed production field inspection	Trained field inspectors for foundation and certified seed production.	60 inspectors were trained.	
NGOs/UN	Procurement and distribution of relief seed (seed aid)	80% imported, 20% locally produced. Large system of distribution.	Are they working toward sustainability models/mechanisms through partial subsidies?	

Seed Sector Partner	Role in Seed Value Chain	Capacity	Capacity Gaps	Remarks
NGOs/UN	Support local seed production, mostly community-based or individual farmers-based seed production.	The NGOs sometimes use seed company expertise. They also hire external consultants for training these actors on quality seed production.	Are they supporting private seed companies to cater to their needs?	NGOs/UN to enable more local/national sourcing of seed.
NGOs/UN	Organize seed fairs using the voucher system.	Facilitate sharing and exchange of seeds (mostly informal).	Sustainability models requiring co-investment of farmers and stakeholders.	
Seed Trade Association (STASS)	Advocate to the government for member seed companies.	Participate in and influence policy through stakeholder meetings and the national seed committee.	Have they prioritized the intervention areas for advocacy and action?	
Seed Trade Association (STASS)	Establish the Seed Forum, bringing together different actors, including donors.	Capacity to facilitate exchange between actors is limited.	The Seed Forum is functional. STASS has a strategy, work plan, and activities in the seed sector.	
Seed Trade Association (STASS)	Define the quality control system in collaboration with MAFS/Government of South Sudan.	Propose a system based on internal quality control systems of members.	STASS needs to strengthen its relationship with the government to impose controls.	
Seed Trade Association (STASS)	Perform variety trials for maize.	Collaborate with CIMMYT to establish multi-location variety trials for variety release.	They need to collaborate with the MAFS Department of Research to have the technical skills to collect quality data of these trials to convince a release committee.	
Private sector seed companies (international)	Companies from abroad (Uganda, Kenya) export seed to South Sudan.	Capacity to deliver quality seed and market accordingly.	Awareness of the adaptation and appropriateness of the varieties in South Sudan.	
Private sector – seed companies (national)	Produce local seed and import seed into South Sudan.	Production and distribution and marketing of quality seed.	Awareness of the need for specific varieties.	

Seed Sector Partner	Role in Seed Value Chain	Capacity	Capacity Gaps	Remarks
Private sector – agro-dealers/distributors	Distribute and sell seeds and inputs in a sustainable way by bringing inputs and services closer to the farmers.	Local networks for distribution and marketing of seed to clients.		
Private sector – agro-dealers/distributors	Distribute and sell other important inputs (fertilizer, pesticides) and provide services (spraying, mechanization).	Local networks for distribution and marketing of seed to clients.		
Private sector – agro-dealers/distributors	Provide advisory/extension services to clients (farmers).	Extensive network of farmers; trusted.	Limited capacity to transfer technology to farmers in a participatory way.	Compete with national/local seed companies through tendered seed aid.
Farmers/farmer groups	Produce seed for their local needs.	Highly variable capacity for seed production and quality assurance.		
Project: Agricultural Markets, Value Addition and Trade Development Project (AMVAT)	Develop crop value chains of sorghum, maize, sesame, and groundnut.	Established 20 Aggregation Business Centers, 10 Seed Enterprise Groups, and 120 Business Producer Associations.		
Project: FNS-REPRO	Enhance farmers' access to quality seeds of superior varieties and contribute to food and nutrition security and economic development.	Facilitate local seed production for maize, sorghum, cowpea, and groundnut.		Strong synergy with A3-SEED.
Project: FNS-REPRO	Promote both formal and informal seed systems as well as private and public actors in the seed value chain.			
Project: South Sudan Agribusiness Development Project (SSADP) II	Develop maize, sorghum, groundnut, and cassava value chains by supporting enterprises.	Provide innovative financing and business support services.		

Seed Sector Partner	Role in Seed Value Chain	Capacity	Capacity Gaps	Remarks
Project: South Sudan Livelihood and Resilience Project (SSLRP)	Support farmer organizations and invest in rural agro-based value chains or enterprises.	Community-Driven Development Planning, including strengthening of CBOs with an output of functional, gender-responsive and diverse CBOs.		A3-SEED beneficiaries will benefit from improved rural infrastructure as a result of SSLRP activities.
Seed Systems Group (SSG)	Implement IFAD-funded "Building Back Better Rural Livelihoods Recovery Initiative for the Horn of Africa Project," which focuses on seed production and distribution through seed companies and village-based advisors.	Subsidize seed companies in the production of quality seeds and develop a network of village-based advisors for extension and distribution of quality seeds to the farmers.	Has a set of technical skills in seed systems development, especially in developing EGS production, that can bridge the gap created by absent/limited EGS.	As A3-SEED is a longer term project, it will inherit the gains from this one-year initiative and develop sustainability over the life of the project.

Annex E. Risk Matrix including Risk Status and Mitigating Measures – 2023

	Main Risk	Owner of Risk	Reason/Cause	Effect	Risk Mitigation Measures in Effect in 2023	Risk Assessment			
						Probability	Impact	Level of Risk	Risk Response Strategy
1.0		**Agriculture production risk**							
1.1	Erratic rainfall	Farmer households (HHs)	Change in weather condition	Crop damage or total yield losses	Advise farmers to diversify crop varieties.	50-80%	High	High	• Promote climate change mitigation practices and early warning systems. • Gather comprehensive and accurate weather data for purposes of weather forecasting.
1.2	Prolonged drought	Farmer HHs	Changes in weather or deforestation	Crop loss or yield reduction	Collaborate with the public and private research institutions to develop drought-tolerant crop varieties.	30-60%	High	Medium	• Promote adoption of drought-tolerant crop varieties. • Gather comprehensive and accurate weather data for purposes of forecasting.
1.3	Inadequate extension services	Farmer HHs	Inadequate investment in extension services	Knowledge gap on good agricultural practices (GAPs)	Develop field manuals for community-based extension workers to enhance extension service delivery.	20-50%	Medium	Low	• Expand reach of extension services through identification of lead farmers to provide extension services. • Continuously build the capacity of community-based extension workers. • Enhance farmer-to-farmer interactions through training on demo plots, farmer field days, and radio talk shows.
1.4	Absence of improved agricultural inputs	Farmer HHs	Inadequate investment in crop research	Recycling of poor-quality inputs, thus limiting yields	Strengthen public and private partnerships in crop research.	20-60%	Medium	Medium	• Support local seed companies to produce quality seeds. • Encourage the purification of the local varieties for smallholder farmers.

	Main Risk	Owner of Risk	Reason/Cause	Effect	Risk Mitigation Measures in Effect in 2023	Risk Assessment			
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1.5	Prevalence of pests and diseases	Farmer HHs	Limited access to pesticides in terms of availability and access, varieties grown by farmers are susceptible to pests and diseases	Yield losses in crops	The project is piloting the concept of spray service providers to address the issue of pests and diseases.	30-60%	High	Medium	• Promote varieties that are tolerant to pests and diseases. • Boost investment in production/marketing or importation of quality pesticides and training of farmers in pest control.
1.6	Poor soil fertility	Farmer HHs	Poor agricultural practices and lack of knowledge on fertilizer use	Yield losses in crops	Field manuals on integrated soil fertility management and conservation practices were developed for extension workers.	20-50%	Medium	Low	• The project will continue to train extension workers in integrated soil fertility and conservation practices. • The project has integrated the use of quality seeds and organic fertilizers to stabilize crop yields.
2.0		**Market risk**							
2.1	Inadequate/absence of market infrastructure (e.g., storage)	Farmer HHs, agro-dealers, and traders of crop produce	Inadequate investment in storage facilities	Increased post-harvest losses	Training of extension workers on post-harvest handling to minimize crop loss	20-60%	Medium	Medium	• Collaborate with other projects that invest in farm/market infrastructure. • Promote private sector investment in agribusiness development and infrastructure.
2.2	Poor transport infrastructure	Farmer HHs, agro-dealers, and traders of crop produce	Inadequate investment in construction of feeder roads, road network	High prices and loss of produce during transportation	Feeder roads in the project areas are being improved, especially in Magwi, Torit, and Bor, roads are being constructed in Juba and Rumbek.	50-70%	High	High	• Collaborate with other projects that invest in transport infrastructure. • Support public sector investment in transport infrastructure development.

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2.3	Disorganized marketing channels	Farmer HHs, agro-dealers, and traders of crop produce	inadequate agribusiness sector development and organization	Price distortions	The project has started forming ABCs to improve the supply and distribution of agro-inputs in the market.	20-60%	Medium	Medium	• The project is developing the last-mile distribution channels. • Promote investment in agriculture value chain development.
2.4	Fluctuation in agriculture produce prices	Farmer HHs, agro-dealers, and traders of crop produce	Unexpected change in supply or demand	Inflation and high cost of agro-inputs	Agro-dealers and seed companies are being supported to increase local production; this will stabilize the price of agro-inputs in the market.	20-60%	Medium	Medium	• Work with STASS to determine actual production costs. • Offer trainings to producers to improve the quality of seed. • Collaborate with other projects that offer improvement in post-harvest infrastructure.
3.0		**Political risks**							
3.1	Ethnic divisions	Investor	Historical disagreements / rivalry among different ethnicities	Destruction of community mobilization and organization structures as well as loss of life	A3-SEED has sought services of a security expert to assess and provide weekly updates on political and security risks.	30-60%	High	Medium	• Work with the NGO forum. • Actively engage stakeholders throughout the community to follow a robust Early Warning System. • Consider demonstrating quick wins at the outset of the project.
3.2	Political differences	Investor	Power struggle for control of resources	Rising tensions	A3-SEED has sought services of a security expert to assess and provide weekly updates on political and security risks.	30-60%	High	Medium	• Establish a robust Early Warning System. • Actively engage stakeholders across political divides. • Ensure no demonstration of bias toward any political group.

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3.3	Political elite capture	Investor	Wrestle for financial and asset benefits that come with the investment	Distortion of project purpose	A3-SEED has sought services of a security expert, to provide assess and provide weekly updates on political and security risks.	20-50%	Medium	Low	• Balance the interests of competing groups. • Establish a broad-based beneficiary committee with the ability to retain ownership of the investment for the rightful target beneficiaries.
4.0		**Security risks**							
4.1	Localized intercommunal violence	Investor	Historical disagreements / rivalry among different ethnicities	Destruction of community mobilization and organization structures including loss of life	A3-SEED has sought services of a security expert to assess and provide weekly updates on political and security risks.	30-60%	High	Medium	• Engage a security advisor who provides weekly updates from across the country. • Establish a robust Early Warning System and actively engage stakeholders across the community. • Consider demonstrating quick wins at the outset of the project.
4.2	Outbreak of major conflicts	Investor	Disagreements/ rivalry among various political elites	Destruction of community mobilization and organization structures as well as loss of life	A3-SEED has sought services of a security expert to provide assess and provide weekly updates on political and security risks.	10-40%	High	Low	• Engage a security advisor who provides weekly updates from across the country. • Establish a robust Early Warning System and actively engage stakeholders, especially the political actors.
5.0		**Programmatic risks**							

	Main Risk	Owner of Risk	Reason/Cause	Effect	Risk Mitigation Measures in Effect in 2023	Risk Assessment			
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5.1	Failure to secure commitment from local partners	Investor	Weak capacity and management systems and uncertain commitment	Failure to optimally achieve project objectives	Local partner consultation and sanitization has been successfully conducted through meetings and workshops in all hubs. There is expression of commitment at state, county, and payam levels	20-50%	Medium	Low	• MoU has been developed on how to collaborate with stakeholders in the implementation of the project. • Establish robust partner selection and verification mechanisms to admit competent and committed partners.
5.2	Exclusion of some groups	Investor	Selectively working with target groups	Beneficiary group(s) targeted for retributions, leading to local tensions and extended inequalities	Stakeholder consultation has paved the way for equitable mobilization of beneficiaries. Seed companies are selected from various hubs.	20-50%	Medium	Low	• Adopt informed, consultative, proper, verifiable, and accurate beneficiary selection criteria with consideration of the dynamics that shape the communities being targeted by the project.
5.3	Monitoring and reporting risks	Investor	Insufficient monitoring and reporting	Reduction in quality of decision making and programmatic impact	So far, the baseline assessment was successful and a clear monitoring schedule has been designed and is being implemented.	10-20%	Low	Low	• Institute a proper M&E framework at the inception of the project and orient partners on its adoption and implementation.
5.4	Workflow risks	Investor	Suboptimal workflows	Inadequate timely achievement of quality outputs	A clear plan of activities that will lead to achievement of outputs has been developed.	10-20%	Low	Low	• Establish and maintain proper work plans, ensuring proper and optimal workflows.

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5.5	Government interference	Investor	Gaining control of political capital from project activities	Polarization of beneficiaries and resulting inequality due to selective participation of some beneficiary groups	Close interactions and collaboration with the government at all levels will occur during project implementation.	20-50%	Medium	Low	• Seek immediate government buy-in and active participation while ensuring a broad-based approach that brings all stakeholders on board, leaving no room for dominance by one group.
5.6	Poor coordination with partners and non-key partners	Investor	Imperfect coordination	Weakened complementarity and constraint to overall programmatic impact	A Terms of Reference has been developed to enhance coordination with all Netherlands-funded development projects (FSN-REPRO and FASBSS).	20-50%	Medium	Low	• Schedule regular partner engagement, coordination, and input into project implementation.
6.0		**Fiduciary risks**							
6.1	Misappropriations by partners	Investor	Insufficient fraud mitigation and detection measures	Failure to minimize exposure to misappropriation of resources	A3-SEED is designed such that less limited financial resources are handled and managed by the government. Seed company and STASS grants have clear installment payments and reporting schedules. Therefore, this risk is highly reduced.	30-60%	High	Medium	• Ensure all partners have established and practice proper financial management practices with no fraud record.
6.2	Absorption capacities	Investor	Insufficient delivery capacity among the partners	Slow and/or ineffective resource usage within the available time schedule	A3-SEED technical team works closely with seed companies to ensure effective and efficient utilization of funds.	30-60%	High	Medium	• Establish a mechanism using robust criteria to identify partners with the capacity to absorb the project and deliver in a timely manner.

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6.3	Financial reporting	Investor	Inadequate financial reporting	Weak accountabilities that constrain effective decision making and best use of financial resources	A3-SEED technical team works closely with seed companies to ensure effective and efficient utilization of funds.	30-60%	High	Medium	• Train all partners on reporting requirements. • Ensure all partners have established and use proper M&E practices.
7.0		**Reputation risks**							
7.1	Distribution of sub-standard inputs	Investor	Failure to produce the right quality of inputs	Loss of confidence by the beneficiaries in the quality of project services	The project is collaborating with MAFS and STASS to operationalize the seed certification system to curb the distribution of fake inputs in the market.	20-50%	Medium	Low	• Work with experienced seed companies with the capacity to monitor production processes. • Select seed producers with the technical know-how regarding seed production.
7.2	Supply of seed varieties do not thrive in the South Sudan environment	Investor	Poor or misinformed seed variety selection	Financial and time loss to the producers and the farmers	Market for seeds is being pursued two ways: enabling access for seed companies to the aid market and commercial access to seeds by local farmers.	20-50%	Medium	Low	• Engage seed experts and develop a local business network for the seed supply system. • Widely circulate information through various media on the right quality of seeds required to all seed producers and farmer HHs.

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