



Stories of change from South Sudan: learning from a food systems resilience programme

A writeshop story bundle for FNS-REPRO in South Sudan

Cecile Kusters and Eelke Boerema



WAGENINGEN
UNIVERSITY & RESEARCH

Stories of change from South Sudan: learning from a food systems resilience programme

A writeshop story bundle for FNS-REPRO in South Sudan

Cecile Kusters and Eelke Boerema (Eds.)

Authors of change stories:

Caritas Luxembourg: Pacoto David Langoya

FAO South Sudan: Jacob Mayol, Mimi Wanga, Rose Adede, Maurice Mogga

Global Aim South Sudan: Samuel A. Gale

Star Trust Organization: Binza Joel

VSF-Germany: Nicholas Rabach

World Concern South Sudan: Santino Uguak

Wageningen Centre for Development Innovation
Wageningen, August 2024

Report WCDI-24-336

Kusters, C.S.L. & Boerema, E. (Eds.), 2024. *Stories of change from South Sudan: learning from a food systems resilience programme; A writeshop story bundle for FNS-REPRO in South Sudan*. Wageningen Centre for Development Innovation, Wageningen University & Research. Report WCDI-24-336. Wageningen.

This document describes a range of stories of change that were developed towards the end of the Food Systems Resilience Programme (FNS-REPRO) in South Sudan. The four-year programme addressed the cause-effect relationship between conflict and food insecurity in Somaliland (focusing on the livestock value chain), South Sudan (focusing on the seed sector) and Sudan (focusing on the gum Arabic value chain). A range of change stories are described by programme staff and implementing partners. The themes include women and youth participation, stakeholder engagement and collaboration in the seed sector, empowering local seed production, sustainable seed sector development, and nutrition in the seed sector programme areas in South Sudan.

Dit document beschrijft een aantal veranderingsverhalen die zijn ontwikkeld aan het einde van het Food Systems Resilience Programme (FNS-REPRO) in Zuid-Sudan. Het vierjarige programma richtte zich op de oorzaak-gevolgrelatie tussen conflict en voedselonzeekerheid in Somaliland (met de nadruk op de waardeketen voor vee), Zuid-Sudan (met de nadruk op de zaaigoedsector) en Sudan (met de nadruk op de waardeketen voor Arabische gom). Een reeks veranderingsverhalen wordt beschreven door programmamedewerkers en uitvoerende partners. De thema's zijn onder andere participatie van vrouwen en jongeren, betrokkenheid van belanghebbenden en samenwerking in de zaaigoedsector, versterking van de lokale zaadproductie, duurzame ontwikkeling van de zaaigoedsector en voeding in de programmagebieden in Zuid-Soedan.

Keywords: change stories, conflict, seed sector, food insecurity, resilience, South Sudan

This report can be downloaded for free at <https://doi.org/10.18174/670557> or at www.wur.eu/wcdi (under knowledge products).



© 2024 Wageningen Centre for Development Innovation, part of the Stichting Wageningen Research. P.O. Box 88, 6700 AB Wageningen, The Netherlands. T + 31 (0)317 48 68 00, E info.cdi@wur.nl, www.wur.eu/wcdi.



The Wageningen Centre for Development Innovation uses a Creative Commons Attribution 4.0 (Netherlands) licence for its reports.

The user may copy, distribute and transmit the work and create derivative works. Third-party material that has been used in the work and to which intellectual property rights apply may not be used without prior permission of the third party concerned. The user must specify the name as stated by the author or licence holder of the work, but not in such a way as to give the impression that the work of the user or the way in which the work has been used are being endorsed. The user may not use this work for commercial purposes.

The Wageningen Centre for Development Innovation accepts no liability for any damage arising from the use of the results of this research or the application of the recommendations.

Report WCDI-24-336

Photo cover: Tecno Caivos Camon

Contents

1	Background to the change stories	5
2	Change stories for FNS-REPRO in South Sudan	6
2.1	Empowering change: amplifying women and youth participation	6
2.2	Stakeholder engagement and collaboration in the seed sector	10
2.3	Cultivating change: promoting improved access to quality seed in South Sudan	13
2.4	Towards developing a sustainable seed sector in South Sudan	17
2.5	Cultivating hope in the midst of hardship: nurturing nutrition in South Sudan	21

1 Background to the change stories

This document describes a range of change stories that have been developed at the near end of the Food Systems Resilience Programme (FNS-REPRO) in South Sudan. FNS-REPRO is organized by the Food and Agriculture Organization of the United Nations (FAO) and Wageningen University & Research (WUR) and is a four-year programme addressing the cause-effect relationship between conflict and food insecurity in Somalia (focusing on livestock value chain), South Sudan (focusing on the seed sector) and Sudan (focusing on the gum Arabic value chain). The programme's overall outcome includes resilient livelihoods and food systems and contributions to sustainable localized peace. This will be achieved through improved inclusive access and management of local natural resources, improved livelihoods, and income opportunities along the value chain (livestock in Somaliland, seed in South Sudan, and gum Arabic in Sudan); enhanced knowledge, skills and capacities of local communities around nutrition-sensitive livelihood support; and a learning mechanism that reinforces field activities and facilitates improved policy and practice on food system resilience. FNS-REPRO is the first programme in Eastern Africa specifically designed to foster peace and food security at scale.

In South Sudan FNS-REPRO focuses on seed sector development. FAO collaborates with the following implementing partners: Caritas Luxembourg, CAWDC, Christian Mission for Development, Global Aim South Sudan, Ministry of Agriculture and Food Security, Peace Corps South Sudan, Save the Children, South Sudan Grassroots Initiative for Development, Star Trust Organization, University of Juba, VSF Germany, VSF Suisse, World Concern South Sudan, and World Vision. The programme is implemented in the following areas: Eastern Equatoria State (Torit and Magwi Counties), Western Equatoria State (Yambio and Nzara Counties), Upper Nile State (Renk and Melut Counties), Jonglei State (Bor South and Akobo Counties), Northern Bahr El Ghazal State (Aweil East, West and South Counties), and Western Bhar El Ghazal State (Wau and Jur River Counties).

A range of change stories are described by FAO staff and implementing partners. These change stories are based on evidence generated by both FAO and WUR and have been reflected upon in WUR-facilitated sensemaking events. These sensemaking events informed decision making and adaptive programming. WUR organized writeshops to reflect on the available evidence in the last year of the programme and to develop change stories that describe how different themes and issues evolved over the course of the programme. The themes include women and youth participation, stakeholder engagement and collaboration in the seed sector, empowering local seed production, sustainable seed sector development, and nutrition in the seed sector programme areas in South Sudan. We hope these stories will be an inspiration for others to further enhance resilient livelihoods of people in the region.

2 Change stories for FNS-REPRO in South Sudan

2.1 Empowering change: amplifying women and youth participation

By: Samuel A. Gale (Global Aim South Sudan) & Rose Adede (FAO South Sudan)



Figure 1 Mr. Dominic Oyoo, a youth resident of Enyif Boma, packaging his harvest of Sorghum-Sesso 3 seeds for a seed fair event in Ifwotu Payam, Torit County, Gunyoro Boma (March 2022).

Untapped potential of women and youth in fragile and conflict-affected environments

In FAO's Policy on Gender Equality 2020-2030, there is an important recognition of FAO's role to act as a catalyst in dismantling gender-based disparities that persistently hinder the position of women and girls. With a resolute commitment to achieving gender parity within sustainable agriculture and rural development, FAO recognizes the untapped potential of women and youth, particularly within fragile and conflict-affected environments. The significance of their contributions to humanitarian, developmental, and peace processes remains profound, yet largely untapped. By prioritizing their participation and integrating their perspectives, the journey to sustainable development and addressing food and nutrition insecurity across South Sudan can become one of success.

A closer look at marginalization and challenges

In the heart of South Sudan¹ FNS-REPRO embarked on an insightful journey – informed by a multi-dimensional context analysis – that illuminated existing exclusionary decision-making processes, particularly for women and youth. Their absence from leadership and decision-making spheres eroded their potential to actively shape humanitarian, developmental, and peace efforts. Yet the path to empowerment was obstructed by a series of complex challenges, as described below.

¹ Eastern Equatoria State; Torit County, Ifwotu Payam (Enyif and Motii Bomas), Imurok Payam (Isalaro and Chuful Bomas) and Himodonge Payams (Oruhoi and Ofong Bomas).

Youth's struggle for opportunities: Many youth found themselves bereft of the necessary skills and financial resources to launch businesses, which could serve as the cornerstone of sustainable livelihoods and contribute to a brighter future. The lack of access to grants further compounded their predicament.

Silenced voices: Women and youth found themselves on the outskirts of the farming landscape and were marginalized from elective roles and participation in decision-making processes. This silencing of their voices hindered their potential to contribute effectively.

Government absence: The absence of government programmes tailored specifically for women and youth left these vulnerable populations exposed during the turmoil of conflict in South Sudan. The lack of a safety net further exacerbated their challenges.

Economic strain: Unemployment, particularly among women and youth, cast a long shadow on economic stability. The ramifications rippled far and wide, intensifying existing vulnerabilities.

Shadow of insecurity: Insecurity cast its shadow over movement, farming, and essential services, eroding the potential for engagement among the youth. This climate of uncertainty further stifled opportunities.

Contribution to women and youth empowerment

FSN-REPRO aimed at reducing the population facing food insecurity through enhancement of food production and productivity, and use of conflict-mitigation measures recognizing the roles of women and youth in peace building. This is further explained below.

Addressing insecurity which undermines food production. Traditional livelihood systems of the people from Himodonge, Imurok and Ifwotu Payams rely on large-scale agro-pastoral activities. Because of this, their Payams (administrative divisions) are considered as the food basket of Eastern Equatoria State. But because of the insecurity and inter-community conflict that had affected neighbouring communities since 2016, many people could no longer access their land. Torit county's people fell back to subsistence farming for their survival. Their production sharply dropped and the area became socially and economically impoverished, with many people depending on handouts from relatives and humanitarian organizations. Once relative peace had returned in these Payams, the communities still struggled to engage in intensive farming due to limited access to labour saving technologies. Big areas of land remained uncultivated, and food insecurity persists. FNS-REPRO supported communities with conflict resolution activities.

Enhancing livelihood security. Improving livelihoods options, e.g. through improved access to strategic agricultural inputs and/or income generation, was a critical area of intervention under FNS-REPRO. This included provision of fast maturing drought/flood-tolerant seeds, farming tools and inputs, farmer training, farmer groups for women and youth approaches, promotion of vegetable gardening, and income-generating activities. This component aimed at contributing to livelihood enhancement and diversification for disaster-prone and disaster-affected communities so that they could boost their capacities to resist, cope and bounce back from natural and human-induced disasters.

Community and partner capacity building. This component mainly focused on partner and community capacity building. It aimed at equipping the communities and partners with skills to undertake smooth implementation of the programme, develop community-owned store management plans, market business plans for selling their produce, and implement community seed banking system interventions. All the community seed banking systems included livelihood resilience and conflict resolution activities, and the design of these systems was based on the result of a food security assessment report.

In the pursuit of effective change, FNS-REPRO included the empowerment of women and youth. This involved addressing exclusion as a potent trigger for both conflict and food insecurity. A strategic approach unfolded, intentionally ensuring that 30% of beneficiaries were youth (<35 years), 40% were women (>35 years), and 30% were men (>35 years) during beneficiary mobilization. This concerted effort symbolized a commitment to translating intentions into actions. The programme's design and adaptive ethos

aligned seamlessly with the objectives of UNSCR 2417², underscoring the intricate connection between conflict and food insecurity.

A holistic path forward

Sociocultural and economic forces continue to undercut the full engagement of women and youth. In response, FNS-REPRO's approach to empowerment widens their scope. Beyond capacity building and information dissemination, the approach ventures into economically viable activities – activities that not only enhance efficacy but also instill confidence and attenuate inequality. FNS-REPRO's method acknowledges the necessity of forging alliances with authorities, traditional leaders, and elders. Together, they challenge the entrenched gender norms and societal constructs that cast women and youth aside.

Nurturing opportunities and real-life impact

The stories of transformation emerge from the very heart of the communities. FNS-REPRO has created opportunities for women and youth through the establishment of seed business hubs and enterprise groups. The programme's influence permeates the seed value chains, bolstering these groups' empowerment. Furthermore, it paves the way for capacity development, a key component for reaching lasting change.

Adding a personal touch to the narrative, testimonials of women and youth paint a vivid picture of the real-life impact of FNS-REPRO's interventions, as described below.

240 women and youth (123 males, 117 females) dived into seed production, cultivating maize long 5 and yielding a remarkable 24 metric tons of seed for the market.

66 women and youth (38 males, 28 females) ascended to leadership positions across various groups and to the Seed Quality Control Board (SQCB), blazing trails of inclusion.

484 women and youth (214 males, 270 females) underwent intensive capacity building within the seed value chain, arming them with knowledge and skills.

Women and youth not only engaged in farming but also honed their skills through trainings in good agricultural practices (GAP) and marketing.

Lessons learned and future pathways

Along the course of FNS-REPRO, key lessons have been learned for improving women and youth participation. Key lessons include: strengthened community-level frameworks for planning and management of access to natural resources, whilst engaging diverse interest groups, including women, youth and community elders; promoting inclusivity in the composition of natural resource management (NRM) committees; and increasing the participation of women and youth in decision-making processes. FNS-REPRO's initiatives have witnessed a transformation in community attitudes, instigated by heightened awareness of the importance of nutritious vegetable crops. Women and youth participation has helped them to become role models, generating an ability to positively influence others to take ownership over their own lives and disengaging from violence. This effect was further strengthened by the fact that economic support was once again linked to awareness raising and training. Also, group-based support rather than individual support strengthened collaboration, dialogue and mutual understanding. To consolidate this, where possible, the formation of groups of mixed gender and ethnicity appears to be important for future action.

Furthermore, because socio-economic activities brought people together, they offered at the same time a platform to discuss and act upon tensions and conflict that existed in the community. This also strengthened the voice and participation of women and youths in groups that would normally not be involved in decision-making processes in the community. Examples include farmer group leadership and store management committees in support of smooth implementation of the programme.

However, certain challenges still exist. The lack of a ready market for locally-produced seeds serves as a stumbling block for farmers, including women and youth. This is relevant because there will be no market for

² This is the United Nations Security Council Resolution 2417: Protection of civilians in armed conflict. See also: <http://unscr.com/en/resolutions/2417>.

selling seed produced by the women and youths in the community, which will demoralize their participation in farming activities. Furthermore, engaging the private sector with local seed producers remains a work in progress, a vital alliance yet to be fully realized. Also, the need for massive support for government institutions lingers, a call for bolstered infrastructure to uplift the welfare of women and youth.

Recommendations

A range of suggestions are given for the future.

Ensure adequate time for planning. Planning at community and partner organisation levels needs adequate time investment. There is also the need to plan early to ensure smooth and timely implementation. Therefore, there is need to train communities in the importance of contingency planning to enable them to support the process and enhance sustainability of the interventions.

Build capacities. In order to enhance impact, capacity building is needed on leadership skills, gender equality, contingency planning, and group financial management and book keeping for the farmers groups, store management committees, and Seed Quality Control Board members. There is need for more mentoring and coaching to enhance the already-built capacity of both partners and community members. There is need to invest more in learning visits so that farmers groups, store management committees and Seed Quality Control Board members, community facilitators and project staff can gather adequate skills and experience. Implementing partners should ensure stability for trained Seed Quality Control Board personnel in the implementation team. Also, there is need for capacity building for project staff on participatory monitoring, evaluation and learning, on documentation, and on project cycle management.

Develop community institutions. Existing community institutions should get legal recognition to give them a full mandate and opportunities in performing project tasks with the full backing of the law. This is also good for the project's sustainability, especially after the implementing partner has phased out. Examples include the Seed Quality Control Board, seed companies, and store management committees.

Enhance livelihood security interventions. Clearly defined and focused areas of intervention are needed to enhance implementation. This will help guard against spreading the available resources too thin. Standardized operation procedures for livelihood interventions need to be put in place. This will ensure uniformity and enhance the quality of capacities built in areas of intervention. Projects involving the distribution and adoption of drought tolerant crops should target bigger numbers for more impact. This should be accompanied by timely provision and delivery of seeds and trainings.

Conclusions

Amidst the challenges, the story of women and youth participation emerges as a fundamental priority area. The impacts of the FNS-REPRO interventions are starting to emerge, but more is required in order to ensure that women and youth are empowered and to ensure that sustainable contributions for building resilient food systems in South Sudan can be achieved.

References

- FNS-REPRO progress reports.
- Boerema, E., Chapman, C., & Kusters, C. (2021c). FNS-REPRO South Sudan key findings report: Key findings emerging from the FNS-REPRO generated studies and other sources as input for the sensemaking events and adaptive programming. (Report / Wageningen Centre for Development Innovation; No. WCDI-21-173). Wageningen Centre for Development Innovation. <https://doi.org/10.18174/551848>.
- FNS-REPRO Final Evaluation Report 2024.
- FAO (2024,a). Evaluation of the project "Food and Nutrition Security Resilience Programme (FNS-REPRO): Building food system resilience in protracted crises" - Project code: GCP/GLO/997/NET. Project Evaluation Series, No. 35/2024. Rome. <https://doi.org/10.4060/cd2214en>
- FAO (2024,b) Food and Nutrition Security Resilience Programme in South Sudan – Endline survey report. Rome. <https://doi.org/10.4060/cd0601en>
- Kusters, C. S. L., Boerema, E., Jube, J., Kenyi, M. R., Nyombe, M., Kapinga, N., Kivuva, N., Joosten, K., & Chapman, C. (2022b). FNS-REPRO Sensemaking workshop report South Sudan: Report of a sensemaking workshop held on 22-23 July 2022 with FNS-REPRO and key partners and stakeholders. (Report / Wageningen Centre for Development Innovation; No. WCDI-22-223). Wageningen Centre for Development Innovation. <https://doi.org/10.18174/579197>.

2.2 Stakeholder engagement and collaboration in the seed sector

By: Binza Joel (Star Trust Organization) & Nicholas Rabach (VSF-Germany)

Seed can play a critical role in increasing agricultural productivity; it determines the upper limit of crop yields and the productivity of all other agricultural inputs to the farming system. A well-functioning seed system is defined as one that uses the appropriate combination of formal, informal, market and non-market channels to meet farmers' demand for quality seeds efficiently. This demands a comprehensive strategy centred around collaboration, partnership, and engagement of various stakeholders within the seed ecosystem. Unfortunately, this level of cooperation was not seen among different players in the South Sudan seed sector, with many working in isolation. The ongoing crisis and economic hardship in South Sudan further compounded this situation. Consequently, many farming households could not access high-quality seed varieties that can increase production and productivity, which negatively affected their livelihood options. Van Uffelen et al. (2023) state in the policy brief for a robust, inclusive, sustainable and resilient seed sector in South Sudan, that there is *"lack of a mechanism facilitating coordination and knowledge sharing among seed sector stakeholders, resulting in lack of alignment of seed sector interventions and difficulties in scaling good practices."*

FNS-REPRO promotes the development of an integrated seed sector that is more vibrant, pluralistic and sustainable. The programme takes a farmer-focused and demand-driven seed sector development approach which caters for the diversity of seed demands for improving food and nutrition outcomes. FNS-REPRO places emphasis on building institutional capacities as well as strong public-private partnerships and collaborations as key ingredients in promoting the sustainability of its interventions. To enhance FNS-REPRO effectiveness and geographical scale-up of best examples in resilience building, the programme works with national and international NGOs, Government line Ministries, regional and National Agricultural Research Systems (NARS) and the academia, as well as with the private sector including private seed companies, agro-dealers and farmer enterprises.



FAO and partners facilitated the establishment and functioning of at least ten state/county level seed quality control boards (SQCBs), whose role has been instrumental in promoting local seed production and marketing through improved seed quality control measures, and advocating for seed policies, boosting farmer trust on quality seed. FNS-REPRO and partners such as Cordaid and IFDC jointly support the training of seed laboratory technicians and the set-up of basic seed laboratories in Yambio and Bor Counties. Furthermore, FNS-REPRO promotes the creation of market linkages between FNS-REPRO supported community-based seed producers and potential local seed companies and agro-dealers to promote local demand and market for quality seed. In 2022/23, a total of 1,124 MT of assorted locally produced seed was aggregated in community seed stores and marketed through private seed companies and seed fairs.

As a key collaborator, the national government provides an oversight role on policy-making, monitoring and review of FNS-REPRO's performance. The key interventions of FNS-REPRO are strongly aligned to the government's strategy to support institutional development and contribute to the overall development outcomes that encourage local ownership and sustainability of the programme. In addition, FNS-REPRO coordinates with FAO humanitarian programmes and other NGO initiatives. In particular, the seed and/or grain market requirements by FAO, WFP and other NGO humanitarian programmes have offered income opportunities to FNS-REPRO beneficiaries. Therefore, FNS-REPRO efforts are aimed at strengthening partnerships between actors of the private sector, the public sector, civil society, knowledge institutions, as well as farmers and their organizations, to close the food and also seed supply/demand gap by contributing to the development of sustainable crop value chains in areas characterized by protracted crises.



Challenges encountered and lessons learned

A significant lesson from the FNS-REPRO initiative is the vital interplay between insufficient institutional capacity to enforce policy and competing interests and expectations among stakeholders as formidable challenges. Addressing these challenges underscores the importance of a harmonized approach that engages both the public and private sectors, each with distinct but equally pivotal roles within the seed ecosystem, resilience building, and sustainability efforts. The lesson learned resonates with the emphasis on the necessity for clear and timely communication among these diverse stakeholders. Such communication proves instrumental in averting misunderstandings, aligning expectations, and fostering an environment conducive

to the seamless implementation of activities. This fundamental insight serves as a beacon guiding the way towards effective partnerships and collaborative endeavours, ensuring that the collective efforts are channelled towards realizing the goals of the initiative.

Towards sustainable and long-lasting partnerships and collaboration in the seed sector

To foster sustainable and enduring partnerships and collaborations within the South Sudan seed sector, several key policy recommendations, research initiatives, and Public-Private Partnerships (PPPs) are poised to make a transformative impact. First and foremost, supporting policies that prioritize cross-sectoral dialogue and engagement among diverse stakeholders would be instrumental. These policies should encourage knowledge-sharing, resource pooling, and joint decision-making to address the challenges of operating in silos. Concurrently, rigorous research efforts should be directed towards identifying context-specific seed varieties that are resilient to local environmental conditions and aligned with the needs of farming communities. Robust research also holds the potential to uncover innovative farming practices and seed production methods that can enhance yield and quality. To leverage the strengths of both the public and private sectors, PPPs could be established, forging collaborations that extend from research and development to distribution networks. These partnerships could streamline the supply chain, ensuring timely availability of high-quality seeds to farmers. Overall, an integrative approach encompassing policy reforms, research endeavours, and strategic PPPs could pave the way for a vibrant and self-sustaining seed sector in South Sudan.

References

- Ngalamu, T., Subedi, A., & van Uffelen, G. J. (2021). Seed system resilience assessment in Ikwoto County, South Sudan: Food and Nutrition Security Resilience Programme (REPRO) South Sudan Programme. (No. WCDI-22-211). Wageningen Centre for Development Innovation. <https://doi.org/10.18174/575684>.
- Ngalamu, T., Subedi, A., & van Uffelen, G. J. (2021). Seed system resilience assessment in Magwi County, South Sudan: Food and Nutrition Security Resilience Programme (REPRO) South Sudan Programme (No. WCDI-22-212). Wageningen Centre for Development Innovation. <https://doi.org/10.18174/575685>.
- Ngalamu, T., Subedi, A., & van Uffelen, G. J. (2021). Seed system resilience assessment in Torit County, South Sudan: Food and Nutrition Security Resilience Programme (REPRO) South Sudan Programme (No. WCDI-22-210). Wageningen Centre for Development Innovation. <https://doi.org/10.18174/589174>.
- Uffelen, van, G. J., Subedi, A., Ngalamu, T., Thijssen, M. H., Jubarah, S., Silvano Bennet, V., Longley, K., Vernooy, R., & Mogga, M. (2023). Policy brief: Ten pathways towards a robust, inclusive, sustainable and resilient seed sector in South Sudan. Wageningen Centre for Development Innovation, Wageningen University & Research. <https://doi.org/10.18174/589174>.

2.3 Cultivating change: promoting improved access to quality seed in South Sudan

By: Santino Uguak (World Concern South Sudan)



Figure 2 Agol Kon (L) and her group members displaying vegetable seed from the Demo Farm in Marial Ajith, Wau County.

The beginning of a transformation for seed-producing communities

In the heart of communities across South Sudan, including Jur River county in Western Bahr el Ghazal State, a remarkable transformation has been unfolding. For years, these communities were producing seeds in meagre quantities for personal crop cultivation, driven by a lack of knowledge about seed business. A local saying underscored their commitment to self-reliance – it was better to beg for seeds than for ready food. Seeds were exchanged as gifts, swapped for other varieties, or received through emergency humanitarian initiatives. This landscape lacked a market for local seed producers, emphasizing the need for change in order to build more resilient food systems for improving food and nutrition security in South Sudan.

Seeds of change begin to sprout

During the last decade, FAO supported Community-based Seed Production and Supply (CBSPS) projects in South Sudan. While these projects – Emergency Livelihood Response Programmes (ELRPs) – were crucial for humanitarian relief, they fell short in propelling seed-related efforts towards self-sustaining and market-driven local seed enterprises. Seeds continued to be imported from foreign sources, often faltering due to factors such as inadequate storage, transportation hurdles, and the impacts of changing environmental conditions and related shocks and stressors.

The aim of the ELRPs was to save lives, protect livelihoods, enhance food production and strengthen the resilience of vulnerable communities by building their coping capacity. As such, the ELRP set the foundation

for enhancing the long-term adaptive capacity of communities and strengthening synergies among the activities FAO have been pursuing towards building resilience.

However, after several complaints and reports by communities in South Sudan about foreign seeds not doing well in the country, FAO, its partners and donors began to think of supporting local seed production through provision of start-up seeds, training farmers on seed production, strengthening market linkages and provision of information about seeds businesses/enterprises, which culminated into sponsoring the Food and Nutrition Security Resilience Project (FNS-REPRO) aimed at addressing the inability by local farmers in accessing quality seeds for their seed businesses.

FNS-REPRO: promoting farmer-led seeds enterprise models

In South Sudan, FNS-REPRO focused on developing an integrated seed sector and seed systems therein. This sector was pre-selected because of the shortages of quality seeds and planting materials necessary to enable farmers to produce sufficient food for their families and a surplus for sale. This has been a constraint for many generations in South Sudan. The situation of seed shortages and poor access to quality seed has been exacerbated by the 21-year violent conflict, lack of knowledge on seed business, and recurrences of floods and drought, which have impacted the local seed supply significantly.

The project was also built upon achievements and lessons learnt from similar ELRP interventions in previous years to promote the scaling of best-bet approaches towards strengthening the absorptive capacity of communities and building resilience at household and community level through seed enterprises.

FNS-REPRO took an integrated approach to seed sector development, recognizing the indispensable roles played by diverse seed systems. The programme's goal was to strengthen these systems, nurturing them into efficient, sustainable mechanisms equipped to tackle new crops, quality concerns, marketing dynamics, and organizational challenges. The underlying purpose was to cultivate resilient seed systems that guarantee access, availability, and optimal utilization of seeds, thereby nurturing community resilience.

Nurturing farmer-led seed enterprises

FNS-REPRO's journey is unfolding through two innovative farmer-led seed enterprise (FLSE) models, as described below.

Contract seed production: This model establishes robust partnerships between private seed companies and FNS-REPRO-supported seed producers. Under this collaboration, contracted growers receive foundation seeds, tools, and equipment, adhering to established field standards. After harvest, contract farmers supply their produce to private seed companies, which take charge of processing, certification, and marketing. These contract seed companies bought several tons of maize seeds from FNS-REPRO farmers in Yambio and Torit respectively in 2022.

Quality Declared Seed (QDS) production: Enabling entrepreneurial farmer groups and cooperatives to transition into self-sufficient local seed businesses, FNS-REPRO teams up with implementing partners to establish seed quality control boards (SQCBs) in collaboration with agricultural departments. Technical support from seed assistants ensures stringent monitoring of seed production, ensuring adherence to QDS standards.

This collaborative mechanism has yielded tangible results. Organizations like WCDO harnessed its potential, giving rise to 11 seed growers' cooperatives. These cooperative endeavours have significantly amplified the production and marketing of locally adapted crop varieties and precious landraces. A consequential by-product of this approach is the enhanced accessibility and availability of farmer-favoured crop varieties, predominantly facilitated through informal seed systems and the vibrant platform of seed fairs. In Jur River in 2022, a total of 38.9 tons of assorted crop seeds were sold during a seed fair by FNS-REPRO supported seed producer groups generating around 7.5 million South Sudanese pounds (or 15,000 USD).

In 2022 a pivotal moment emerged with the Rapid Seed Security Assessment (RSSA), underscoring the remarkable achievement of aggregating and producing 1,124 metric tons of seeds within community seed

repositories. Within this repository, a notable portion — 449 metric tons — represented invaluable landraces, embodying the rich agricultural heritage of the region.

The momentum continued to build as FNS-REPRO championed the establishment of seed fairs in March and April 2023. These fairs served as vibrant marketplaces, igniting demand for seeds aggregated by farmers themselves. This innovative intervention breathed life into a cycle of community-driven growth, fortified by the principles of the triple nexus (humanitarian-development-peace), fostering a profound sense of social cohesion among the participating communities.

Triumphs and trials

The journey embarked upon by FNS-REPRO has not been without its fair share of challenges. These challenges, though formidable, have served as stepping stones for learning, adaptation, and growth.

One of the early challenges that surfaced was the lack of awareness among some local farmers regarding the significance of purchasing quality declared seeds (QDS). As FNS-REPRO delved into the communities, it became evident that a knowledge gap existed, wherein the transformative potential of high-quality seeds for enhanced yields was not fully understood. Addressing this challenge became a key issue, sparking a mission to disseminate awareness about the tangible benefits of investing in quality seeds. Through community engagement, workshops, and informational campaigns, FNS-REPRO set out to sow the seeds of knowledge, ensuring that the importance of quality declared seeds took root in the minds of farmers.

Connecting FNS-REPRO's seed producers to stable and continuous markets is one of the main challenges. While the initiative was succeeding in nurturing local seed production, ensuring a reliable avenue for these seeds to reach consumers proved to be challenging. The intricate web of market dynamics, distribution networks, and economic fluctuations presented hurdles that required innovative solutions. FNS-REPRO recognized the necessity of cultivating robust linkages with private sector partners and stakeholders, striving to establish enduring connections that would foster the sustainability of the seed system within these communities.

Roads, or the lack thereof, remain to be a key challenge. The vast expanse of South Sudan's landscapes meant that many local seed producers were situated in areas with poor road networks, rendering them inaccessible to markets with greater opportunities. This geographical challenge hindered the potential for their produce to reach consumers, perpetuating isolation and limited economic growth.

Another challenge encountered was the absence of community seed stores in many rural areas, particularly for lead farmers. Recognizing the need for safeguarding these vital resources, FNS-REPRO took steps to encourage the establishment of community seed stores. These safe havens not only shielded the seeds from pilferage but also became spaces for knowledge exchange, where farmers could gather, share insights, and collectively strive for agricultural resilience.

The absence of modern farming machinery posed yet another challenge that resonated deeply within the agricultural landscape. Many local farmers lacked access to essential tools like tractors, cleaning, and packaging machinery. This limitation hindered efficient production, processing, and preservation, stifling the potential for growth and prosperity. FNS-REPRO equipped farmers with the necessary tools to enhance productivity. Through capacity-building initiatives and strategic partnerships, the programme aimed to bridge this technological gap, ensuring that local farmers could harness the full potential of their lands.

Emerging key lessons

The FNS-REPRO experience in South Sudan, although faced with persistent challenges, yielded a range of insightful lessons, which inform future programming for building more resilient seed systems in South Sudan.

Private sector connections: the path to success for community-based seed producers lies in forging robust connections with the private sector. Strengthening these market linkages is paramount to propel the seed business system forward.

Empowering local farmers with the skills of quality seed production has yielded fruitful results. This knowledge infusion has not only bolstered the availability of quality declared seeds (QDS) but also enriched their quantity.



Figure 3 Luana (medium sorghum) seeds threshing in Dhikou boma of Kangi payam, Jur River.

The Seed Quality Control Board (SQCB). At the core of this transformation stands the Seed Quality Control Board. This crucial institution plays a pivotal role in enhancing the quality of seeds produced by community-based seed producers. Its watchful eye ensures that only the best seeds make their way to the hands of farmers.

Collaboration and cooperative building is key to improve the performance of individual farmers, establish market linkages, and negotiate for prices, inputs and policies. This model should be further developed and used as a blueprint for future interventions.

Through these collective efforts, South Sudan's agricultural landscape is undergoing a profound shift – one that's cultivating not just seeds, but a future of prosperity and resilience.

Strengthening seed quality control, fostering private sector connections, and professionalizing seed production are paving the way for growth. Empowering local producers with training and resources, while ensuring clear policies and stable markets, is shaping a resilient and prosperous seed sector for the nation. This is what requires continued focus, efforts and concerted interventions, to contribute to building a resilient food system in South Sudan.

References

- Rapid Seed Security Assessment (RSSA) South Sudan, 2022/23 (unpublished).
- Seed Systems Security Assessment (SSSA) in South Sudan, 2019. <https://seedsystem.org/wp-content/uploads/2021/02/Seed-System-Security-Asseessment-SSSA-in-South-Sudan-March-2019.pdf>.

2.4 Towards developing a sustainable seed sector in South Sudan

By: Pacoto David Langoya (Caritas Luxembourg) and Jacob Mayol (FAO South Sudan)



Figure 1 SMoAF, SMCRD, FAO, WCDO and cooperative groups launching seed processing in Marial Ajith, Wau County (Jan 2022).

Seeds: the foundation of agricultural development

Seeds constitute the bedrock of agricultural production and, by extension, sustainable development in any country. The availability of quality seeds encompassing diverse farmer-preferred crops and superior varieties at an affordable price exerts a profound impact on agricultural output, influencing both yield and product quality. Recognizing this significance, the development of a robust, sustainable seed sector stands as a pivotal agenda for the Ministry of Agriculture and Food Security (MAFS) in South Sudan.

Between 2000 and 2010, the seed sector in South Sudan was characterized by seed importation through relief, rehabilitation, and development organizations. Yet, within the realm of rehabilitation and development, several development partners, in collaboration with MAFS, supported the multiplication and aggregation of specific crops across varying agro-ecologies.

A seed systems security assessment conducted in 2019 illuminated the predominance of the informal sector within South Sudan's seed system, contributing around 85 percent of the seed sources used by farmers. In contrast, the formal seed sector exhibited limitations, with MAFS's research confined to testing materials sourced from outside the country. The Alliance for Green Revolution's (AGRA) endeavours to bolster the formal seed sector led to the emergence of roughly ten local seed companies and the release of about 25 improved crop varieties through MAFS's crop breeding programmes. However, many of these improved

varieties remained underutilized, often confined to research stations and beyond the reach of smallholder farmers.

Furthermore, the persistent 21-year conflict significantly hampered seed sector development, resulting in recurring seed shortages and limited access to quality seeds for smallholder farmers. MAFS, aligning its priorities, concentrated on developing new varieties, establishing policies, regulations, certifications, and seed testing, while striving to minimize the use of poor-quality seeds.

FNS-REPRO's path to progress

FNS-REPRO builds on Sub-Saharan Africa's experiences, employing an integrated approach to seed sector development that acknowledges and harnesses the diverse range of seed systems – formal, informal, and intermediate. In South Sudan, FNS-REPRO adopts an approach that harnesses studies for evidence-based seed sector intervention design and execution. The programme embarks on mapping rich plant genetic diversity, fostering awareness, and promoting conservation and sustainable utilization of plant genetic resources, all contributing to robust seed and food systems.

By fostering a comprehensive understanding of the seed sector among stakeholders, FNS-REPRO identifies and bridges gaps through collective efforts to enhance the efficiency of the seed value chain. A glaring absence of seed quality control systems emerged as a significant barrier to seed sector growth in the country. Consequently, FNS-REPRO supported the establishment of decentralized seed quality control systems at state and county levels in project areas.

For instance, in Magwi and Torit Counties in Eastern Equatoria State, the project facilitated quality seed production and marketing, subsequently enhancing household food security by ensuring timely access to quality seeds for local farmers. The income derived from seed sales enabled farmers to diversify their diets by purchasing poultry, nutrient-rich vegetables, small ruminants, and beef from the market for their families' consumption.

The investment in the seed sector created an alternative livelihood avenue for local seed producers who had previously focused solely on grain production, selling grains to meet basic household needs, often resulting in insufficient food during lean periods. With the intervention of FNS-REPRO, these households transitioned to producing seeds for sale and grains for consumption, ensuring ample grain reserves during lean seasons. Notably, FNS-REPRO's holistic approach encompasses strengthening MAFS's capacity in seed production and quality control, encompassing training, quality assurance protocols, and policy review.

FNS-REPRO's catalytic effect prompted increased investments that further contribute to seed sector development. Recent support from the World Bank and the African Development Bank prioritizes institutional and infrastructural support for MAFS, elevating capacities in agricultural research, early generation seed production, and enhancing smallholder farmers' resilience within sustainable agriculture and food systems.

In FNS-REPRO's interventions in areas such as Torit and Magwi County, farmers had limited access to quality declared seeds (QDS) and relied on their traditional seed preservation methods, often facing challenges posed by poor-quality imported seeds. However, through the intervention of FNS-REPRO, the landscape of seed availability and quality underwent a dramatic shift.

From informal to integrated seed systems

Government involvement, facilitated by the seed quality control board (SQCB) at the decentralized (state and county) level played a pivotal role in enhancing seed quality checks. Rigorous inspections of seed production fields and comprehensive testing for QDS certification were conducted by the seed quality board, elevating the control and assurance of seed quality. This transformation turned a predominantly informal seed system into a more integrated one.

To ensure continued SQCB efficacy, improvement and stocking of testing laboratories, ongoing capacity building, provision of mobility means, and learning exchange programmes are paramount. These initiatives collectively ensure the growth and sustainability of South Sudan's seed sector.

Collaboration between the government, local seed producers, seed companies, and humanitarian organizations surged forward. This partnership aimed to align with the rigorous seeds' quality standards required for production, distribution, and sales at both county and state levels. The seeds quality control board's membership comprised representatives from seed companies, local seed producers, cooperatives, and humanitarian organizations, overseen by the county director of Agriculture or the State Director General of Agriculture. Regular meetings, public awareness campaigns, seeds field inspections, and testing ensued, catalysing change.

On a national level, the Seed Traders Association of South Sudan (STASS), along with FAO, academic institutions, humanitarian organizations, and the national Ministry of Agriculture, joined forces to develop the South Sudan seed bill. This strategic initiative aimed to uplift the country's seed sector upon implementation. However, engagement between private sectors, including seed companies and agro-input dealers, with local seed producers and farmers remains an area requiring attention.

A way forward

Although strides have been made, government institutions need substantial infrastructural and capacity-building support to maximize their contributions to the seed sector's growth. A case in point is Eastern Equatoria State, where the seed sector's control mechanisms were previously weak. FNS-REPRO's intervention revitalized the work of the seed quality control board at both the state and county levels. Through field inspections, seeds testing, and collaboration with stakeholders such as seed companies, local seed producers, and humanitarian partners, the seeds quality control board's operations were fortified. To sustain the efforts of the seed quality control board, a modest charge was introduced for inspecting seeds production fields. Additionally, organizations, seed companies, and local seed producers incurred charges for seeds testing and certification before distributing or selling seeds. This stringent process ensured double-checking of seed quality and, importantly, that only certified quality seeds were disseminated. The charges generated a modest pool of financial resources, enabling the printing of seeds testing certificates and facilitating seeds field inspections.

To further enhance the seed quality control board's effectiveness, seed testing laboratories at the county and state levels require improvement and proper stocking of testing and certification equipment. Continuous technical capacity building for the seeds inspection team and laboratory technicians is essential. Furthermore, the provision of mobility means, such as motorcycles for field inspections, and organizing learning exchange visits to countries like Kenya with advanced seed testing laboratories and robust seed production practices, would contribute to knowledge enhancement and operational improvement.

Through the concerted efforts of FNS-REPRO and collaboration among various stakeholders, an emerging transformation of South Sudan's seed sector from informality to integration showcases the profound impact of strategic intervention, nurturing sustainable seed systems, and fostering food security for generations to come.



Figure 5 Community based seed producers trained under the FNS-REPRO sell seeds through seed fair in Obbo, Magwi county; June 20, 2022.



Figure 6 Opira inspects his 12-acre maize seeds field and expects to harvest 20 MT of quality declared seeds from his farm this first season of 2023.

References

- Rapid Seed Security Assessment (RSSA) South Sudan, 2022/23 (unpublished).
- Seed Systems Security Assessment (SSSA) in South Sudan, 2019. <https://seedssystem.org/wp-content/uploads/2021/02/Seed-System-Security-Asseessment-SSSA-in-South-Sudan-March-2019.pdf>.

2.5 Cultivating hope in the midst of hardship: nurturing nutrition in South Sudan

By: Mimi Wanga (FAO South Sudan)

A long-term focus on food and nutrition security

In the midst of the challenges posed by conflict, climatic hardships, and scarcity, FNS-REPRO has been actively pursuing improvement of poor food and nutrition security. By focusing on dietary diversity and access to and production of nutrient-rich foods, the agro-pastoral households in Western Bahr El Ghazal State (WBGS) in South Sudan have changed towards eating healthier diets.

The initial struggle

Since the echoes of the 2016 conflict subsided, the people of WBGS have been grappling with the persistent adversities that have cast long shadows over their food and nutrition security status. Displacement and the struggle for balanced meals have become an everyday reality, particularly for those dwelling within the Protection of Civilian sites (POCs). The ever-changing climate has condensed their agricultural efforts into a single, rain-dependent farming season, making the cultivation of vegetables and crops a challenging task. In this already challenging environment, rural areas face the added burden of scarce water resources, making vegetable production during dry spells a near-impossible feat.

Slow progress and early hurdles

In the initial phases of FNS-REPRO, the residents of WBGS leaned heavily on a handful of locally grown vegetables, unaware of the untapped nutritional potential that existed in other varieties. The lack of knowledge extended to the cultivation of these nutrient-rich plants and their integration into daily diets. The limited availability of diverse seeds hampered progress, steering farmers towards cereal crops and leaving vegetables by the wayside. Even when these vegetables were accessible, the unfamiliarity with their preparation and consumption hindered their incorporation into everyday meals of agro-pastoral households.

A journey of change

Over time, FNS-REPRO contributed to a transformation, raising awareness about the crucial role of nutrition within these communities. Through radio broadcasts, community engagement, and a baseline survey, a newfound knowledge began to spread. The distribution of vegetable seeds and training in related good agricultural practices (GAP) contributed to improved production of healthy vegetable crops, diversifying local food availability. The connections forged with markets further stimulated a renewed enthusiasm for diversifying production, triggering a glimmer of economic growth.

Current reality and looming challenges

In the present landscape, a shift has occurred. Thanks to FNS-REPRO, communities are now gaining access to nutrient-rich vegetables. Through the revival of indigenous landraces and interactive cooking demonstrations, families have embraced a wider array of nutritious foods. This shift has contributed to better nutrition, health and overall well-being. However, this success is not without its obstacles.

The pursuit of nutrient-rich crops still faces significant barriers. The emphasis on vegetables has cast a shadow on the importance of fruits and animal products as essential sources of nutrients. The extended dry seasons, inadequate roads hindering market access, and the ever-looming threat of flooding continue to pose daunting challenges. Moreover, while change is palpable, there remains a degree of reluctance among some farmers to adopt these novel nutritious vegetables.

Lessons learned and a path to sustain hope

Through this journey, valuable lessons have emerged. FNS-REPRO's drive for nourishing healthy diets has managed to reshape community perceptions. Interactive cooking demonstrations have bridged the divide between unfamiliar vegetables and palatable dishes. The resurgence of the Fall Armyworm (FAW) crisis has underscored the urgency of agricultural diversification, shining a brighter light on the role of vegetables within an unpredictable climate.

As the journey unfolds, the commitment to sustainability remains paramount. Continuous education on the importance of diversified and healthy diets, the revival of indigenous landraces, building of community seed banks for preservation of locally adapted seeds, and improving production of healthy foods, are all essential to build a more resilient food system in South Sudan.



Figure 7 Harvesting of vegetables by FNS-REPRO supported producers in Jur River County.



Figure 8 Marketing of vegetables by FNS-REPRO supported producers in Jur River County.

References

- Rapid Seed Security Assessment (RSSA) South Sudan, 2022/23 (unpublished).
- Seed Systems Security Assessment (SSSA) in South Sudan, 2019. <https://seedssystem.org/wp-content/uploads/2021/02/Seed-System-Security-Asseessment-SSSA-in-South-Sudan-March-2019.pdf>.

Wageningen Centre for Development
Innovation
Wageningen University & Research
P.O. Box 88
6700 AB Wageningen
The Netherlands
T +31 (0)317 48 68 00
wur.eu/wcdi

Report WCDI-24-336



The mission of Wageningen University & Research is “To explore the potential of nature to improve the quality of life”. Under the banner Wageningen University & Research, Wageningen University and the specialised research institutes of the Wageningen Research Foundation have joined forces in contributing to finding solutions to important questions in the domain of healthy food and living environment. With its roughly 30 branches, 7,700 employees (7,000 fte), 2,500 PhD and EngD candidates, 13,100 students and over 150,000 participants to WUR’s Life Long Learning, Wageningen University & Research is one of the leading organisations in its domain. The unique Wageningen approach lies in its integrated approach to issues and the collaboration between different disciplines.

To explore
the potential
of nature to
improve the
quality of life



Wageningen Centre for Development Innovation
Wageningen University & Research
P.O. Box 88
6700 AB Wageningen
The Netherlands
T +31 (0) 317 48 68 00
wur.eu/wdci

Report WCDI-24-336

The mission of Wageningen University & Research is "To explore the potential of nature to improve the quality of life". Under the banner Wageningen University & Research, Wageningen University and the specialised research institutes of the Wageningen Research Foundation have joined forces in contributing to finding solutions to important questions in the domain of healthy food and living environment. With its roughly 30 branches, 7,700 employees (7,000 fte), 2,500 PhD and EngD candidates, 13,100 students and over 150,000 participants to WUR's Life Long Learning, Wageningen University & Research is one of the leading organisations in its domain. The unique Wageningen approach lies in its integrated approach to issues and the collaboration between different disciplines.

