

AgriFoSe2030 annual report

July 2024



Annual report 2023

Preamble

Smallholder farmers can play a strategic role in increasing food security and improving rural livelihoods in Sub-Saharan Africa and South and Southeast Asia. However, they need to be supported by a transformation agenda rooted in science and tailored to country-specific conditions. The Agriculture for Food Security ([AgriFoSe2030](#)) programme supports these transitions to a more sustainable food system by building and sharing capacity for translating science-based knowledge into policy and practice.

There has been fantastic engagement in AgriFoSe2030 at all levels in 2023, and I wish especially to highlight the end of phase 2 workshop in Nairobi where key outcomes from projects were harvested; perspectives report on how AgriFoSe2030 projects are supporting communities to navigate food crises; publication and launch of the second version of our award winning edible insects cookbook; improvements in e-commerce participation by farmers in Southeast Asia; transfer of science translation courses to partner institutions and strengthened ties with policymakers across board.

All 17 AgriFoSe2030 projects are now nearing their end and it is refreshing to see the outcomes that have been achieved and how much stakeholders and communities value the programme's contributions. I have been greatly encouraged by the fantastic energy and deep commitment that many people put into the work, signaling a genuine belief in the AgriFoSe2030 model and its ability to catalyse change. All I can say is that we are now a part of something big, a seismic change that places science at the core of agricultural policy and practice.

In this annual report, we have summarised some of the achievements during 2023. Overall, AgriFoSe2030 is on track to mend the age-old disconnect between scientific research and agricultural policy and practices by demonstrating that science-based knowledge is central in establishing sustainable solutions to agriculture's complex challenges. We believe the programme has created a clear pathway for attaining a more resilient and sustainable food system and its model will continue to generate impacts for many years to come.

Have a pleasant reading!

Sofia Boqvist

AgriFoSe2030 Programme Director



About AgriFoSe2030

The AgriFoSe2030 programme targets the UN Sustainable Development Goal 2: “End hunger, achieve food security and improved nutrition and promote sustainable agriculture” in low-income countries in sub-Saharan Africa, South Asia and Southeast Asia. By utilising a knowledge co-creation approach, the programme brings together a network of researchers, practitioners, and policymakers to develop context-specific solutions that are grounded in local knowledge and expertise. The programme works through two pathways to create impact and contribute to SDG 2; first through direct outcomes contributed by the projects, and secondly strengthened researcher/institutional capacities in science translation to contribute to improved practises and policies. These two pathways are closely connected through the capacity building activities within the programme and the change projects.

The AgriFoSe2030 programme has been developed by a consortium of partners from Sweden and partners at universities and research institutes in sub-Saharan Africa and South and Southeast Asia. The programme consists of four *challenges*, each one comprises several change projects that tackle food security issues from different angles (see section 2.3).

AgriFoSe2030 has adopted the use of Theory of Change (ToC) - a systematic approach focusing on finding and enabling pathways to change, which guides the programme to reach its objectives. From programme to project level, everyone involved utilizes a ToC approach for planning and evaluating their activities.



A schematic illustration of how researchers from target countries and Sweden within AgriFoSe2030 collaborate and build capacity to synthesise, communicate and co-create scientific data and research findings in dialogue with various stakeholders, in support of evidence-based decision-making and improved practice, with the end goal of reaching SDG2.

1. Overarching progress assessment

In phase 2, the programme supported 17 different change projects across sub-Saharan Africa, South Asia and Southeast Asia. The countries in which the projects are located are presented in Fig 3. Most of the change projects have been running for two to three years and are coming to an end. Throughout the year, there was a strong emphasis on supporting project teams in the latter stages of their initiatives, such as key learnings, dissemination of findings, final reporting, discussions on what the projects have contributed to, and sustainability challenges. Several short films were produced to showcase these projects and their outcomes (see www.slu.se/agrifose). All projects continued to work on mainstreaming at least two of the programme's cross-cutting issues; poverty eradication, gender inclusivity, climate change adaptation/mitigation and biodiversity protection in the project activities.

The programme's courses and trainings targets were met, which means that all project participants have participated in capacity building activities and that the courses have been migrated to two collaborating universities– University of Nairobi (Kenya) and Kyambogo University (Uganda). It can be concluded that the programme performed as planned in 2023, and there has been a genuine commitment from all partners involved.

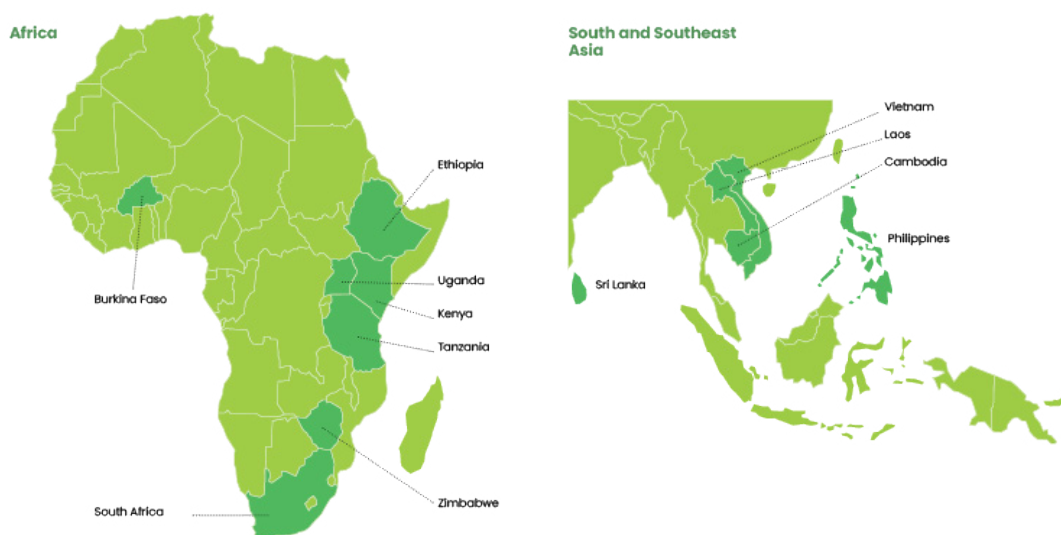


Figure 3. AgriFoSe2030 partner countries

2.1 The AgriFoSe2030 Theory of Change approach

The AgriFoSe2030 programme works with a ToC approach guiding all projects towards a series of desired changes and goals. Therefore, all project partners have, in the startup phase of their projects, gone through an extensive ToC training. They have developed impact pathways on how their project will create impact and change towards the overall programme goal of contributing to ending hunger, achieving food security, improving nutrition and promoting sustainable agriculture. All projects are guided by the AgriFoSe2030 Monitoring, Evaluation, and Learning (MEL) strategy in reporting their progress and contributions to change including how they are bridging science, policy, and practice.

2.2 Activities in 2023

Throughout the year, AgriFoSe2030 planned and implemented different internal and external engagements that amplified the programme including;

- Report launch: [Navigating the Food Crises](#) – Insights from AgriFoSe2030 Projects
- Participation at a seminar on global food systems hosted by Royal Swedish Academy of Agriculture and Forestry (KSLA) and Swedish International Agricultural Network Initiative (SIANI).
- Asia network meeting: Strengthening regional co-operation

- Gender seminar– Focusing on methods of integrating gender transformative models in change projects
- Stakeholder engagement session at [Agri4D conference](#) in Uppsala, Sweden
- Launch of [volume 2 of the edible insects’ cookbook](#). The cookbook won the [Gourmand award](#) in the Future Foods category
- End of Phase 2 workshop (see section 5)

AgriFoSe2030 also supported many projects to collaborate with media professionals, particularly journalists, to review and agree upon the content to be published, preventing misrepresentation. Support was also provided to address journalist–researcher interaction fatigue by pre-writing stories in applicable formats, reducing content-seeking efforts and increasing the likelihood of publication. We further explored partnerships with communication teams from county governments and other relevant bodies for mutual benefit. These initiatives demonstrate the AgriFoSe2030 commitment to creating real-world impact.

2.3 Challenge Narrative Reports

2.3.1 Challenge 1 – Improving access to safe and nutritious food for smallholder farmers

Challenge 1 had five projects up and running during 2023 (See section 3). The project targeting production of black soldier flies for aquaculture improvement in Vietnam was finalised in September, and the project targeting sustainable goat production in Laos ended in December 2023. The remaining three projects will be finalised by the third quarter of 2024. Challenge 1 also engaged two complementary experts during 2023; one expert specialised in food systems, agricultural economics, econometric modelling and mathematical programming, and another specialised in gender. The gender expert also supported with gender issues on a programme level to increase capacity among project leaders on how to work with gender. The work in each project has continued according to the project plans and ToC. Regular follow-up meetings aimed at checking progress and managing new challenges and opportunities were planned for each project in accordance with the programme’s MEL strategy. Based on the activities performed during 2023 it can be concluded that Challenge 1 reached the goals set in its workplan.

2.3.2 Challenge 2 – Agricultural productivity and ecosystem functions

The challenge includes five change projects which were in their finalisation phase in 2023. Each project had bi-monthly progress meetings with challenge leaders and the communications and engagement team. The projects have continued with developing innovative platforms including WhatsApp groups to facilitate knowledge exchange, planning agroecological days to showcase outcomes to farmers, establishment of local cooperatives and improving knowledge on rice straw utilization for mushroom production. Other interventions include scaling-up sorghum–cowpea production, a cooking competition to improve knowledge on sorghum utilization and collaborations with Kenya’s Samburu County government, and the Kenya Camel Association through co-learning, co-production and experiential field trips. Due to the practical and physical characteristics of the change projects, including supporting transitions to alternative cropping models and management practices, most of the project teams reported high interest from farmers, villages, and agricultural entities outside the intended intervention areas. This is a clear indication of the increased need to expand the reach of AgriFoSe2030 change projects.

In addition, the challenge leaders initiated an in-depth study on how AgriFoSe2030 projects integrate cross-cutting climate adaptation/mitigation, poverty eradication and biodiversity protection issues. Within this body of work, project leaders were interviewed, and the cross-cutting issues were discussed in relation to project impact pathways and in line with the programme’s monitoring, evaluation and learning framework. A detailed report and webinar on cross-cutting issues is planned for 2024. All projects have followed the workplan however the project on parklands restoration in Burkina Faso was delayed due to the uncertainty caused by a coup d’etat and military takeover in 2022. The project team resumed work in late 2023 and are on track to implement all planned interventions.

2.3.3 Challenge 3 – Science-based innovation and extension

Challenge 3 had four running projects in 2023 and the work has been based on bi-monthly meetings with project leaders and follow-up MEL meetings with the AgriFoSe2030 communications and engagement team. Two projects namely 'Biologicals for African Agriculture' and 'Digitalization of Extension Services in the Southeast Asia' were finalized in 2023. The remaining two projects- Functions in extension pathways and Gender sensitive extension are planned to be finalized in 2024. The projects held stakeholder dissemination workshops on digital extension, crop protection and extension pathways for farmers, local government officers and businesses, published a book on mapping digital extension services in Vietnam, Cambodia and the Philippines and are in the process of developing comparative manuscripts on extension functions in Kenya, Laos and Sri Lanka. Other interventions include finalizing a systematic review on women's access to extension services and designing relevant activities on making extension services more gender sensitive. All projects have followed the workplan and paid keen attention to the crosscutting poverty eradication, gender inclusivity, biodiversity protection and climate adaptation/mitigation themes. The projects that are yet to be finalized are on track to implement their interventions and submit a final report.

2.3.4. Challenge 4 – Smallholders within transforming food systems

Activities and the path toward outcomes

All four projects under Challenge four completed all planned activities during 2023. Three projects have submitted final reports and received support from challenge leaders and AgriFoSe2030's communications and engagement team on harvesting the changes their projects contributed to as well as reflecting on the significance and sustainability of these changes. Some projects plan to produce scientific outputs on key lessons and how change was attained. One project- 'Transformation of pastoral livelihoods in West Pokot-Kenya ' received an extension to further investigate gendered differences in attitudes and behaviours that may present new openings for better dietary diversity and nutritional intake. The team is now compiling its final reports and shared some findings at the 7th African Conference of Agricultural Economists (ACAEE) in Durban, South Africa, September 2023.

Collectively, the projects have improved knowledge on how to properly process traditional leafy vegetables to retain their nutritional value, incentivized changes in County Integrated Development Plans around farmer group management, encouraged new local government budgetary allocations to supporting urban agriculture and increased farmer's application of improved fruit tree cultivation practices and their participation in e-commerce. Challenge 4 projects have progressed well in accordance with the intended goals & time plan for 2023. Several scientific manuscripts were drafted during 2023 and a training manual on [African Traditional Leafy Vegetables Supply](#) and Value Chain Analysis for Nakuru and Kisumu counties in Kenya was produced.

The activities from all 17 change projects have led to several outcomes and these are presented in the summary table in section 3.

3. Summary of AgriFoSe2030 projects and outcomes

Project title	Summary and key outcomes
Challenge 1: Improving access to safe and nutritious food	
Smallholder goat production in Laos – improving quality of extension services and access to markets	Improving the quality of extension services and access to markets for smallholder goat farmers and thereby improve goat production. Overall, the project has encouraged investments in goat pens, improved pastures, vaccines and vitamins, leading to healthier animals.
Improving market access and scaling up trading of safe and nutritious edible insects by women and youths in Zimbabwe	Improving market access for women and youth and to scale-up trade of safe and nutritious edible insects in rural and urban markets of Zimbabwe. The project supported the establishment of an insects' market and aggregation point to ensure safe handling of insects.
Application of Black Soldier Fly (<i>Hermetia illucens</i>) rearing technology as a tool to improve environment safety, sustainability and rural development in South of Vietnam: Emphasis on aquaculture production	Establish a model of raising and using Black Soldier Fly (BSF) larvae as a protein source for aquaculture and BSF larvae manure as an organic fertilizer source for crop production. Overall, beneficiary farmers see the value and have adopted BSF as a cheaper and more resource efficient aqua-feed, leading to economic benefits.
Transformation of pastoral livelihoods through enhanced capacity for adaptation of nutrition and commercialization policies to local contexts: West Pokot, Kenya *	Support food security and livelihood transformation among pastoralists in West Pokot. It has contributed to increased adoption of innovative methods of vegetable production. County governments are now committing resources towards building staff capacity on the role of farmer group dynamics in encouraging uptake of sustainability initiatives.
Gender-based approaches for improving food safety, value addition and marketing in livestock systems in western Uganda	Improve women's entry and participation in livestock ownership, access to markets control over assets and improve norms and patterns of power and decision making. The project team taught women practical skills on adding value to milk products leading to one of the women groups building a milk processing facility.
Challenge 2: Agricultural productivity and ecosystem functions	
Agro-ecological practices for restoring Parklands – co-producing science-based skills and knowledge for increased agricultural productivity, Burkina Faso	Improving knowledge and utilization of agroecological practices that ensure sustainable and increased crops production. Most farmers have recognized the need to shift from conventional agriculture to agroecological practices. They also engage in knowledge exchanges through a common WhatsApp platform.
Science-based and co-produced transformative Rangeland Management Practices – how to deal with encroachment of unwanted woody species, (TRAMAP)	Supporting pastoralists and agro-pastoralists to increase agricultural productivity and enhance ecosystem functions through sustainable rangeland management practices. The project has co-developed models for camel management and supported uptake of practices for the control of invasive species.
Promotion of sorghum-cowpea intercropping systems in smallholder farming systems in South Africa for climate change adaptation	Increasing food security and smallholder resilience to climate change through adoption of sorghum-cowpea crop mixes. The project introduced and scaled-up sorghum-cowpea production by 0.75 ha among farmers.

Participatory analysis of the conventional-agroecological intensification continuum for increased productivity and sustainability in the coffee-banana systems	Improving uptake, productivity and sustainability of coffee-banana production models in Uganda. It empowered farmer groups including women to implement practices and manage profits from their fields
Sustainable rice-straw management for improving farmer livelihoods and low environmental footprint in rice-based production systems.	Supporting Vietnamese farmers to repurpose and use rice straw for mushroom production. With high adoption, many farmers gained income from mushroom farming, and this contributed to positive mindset changes which reduced the environmental impacts of burning rice straw during field preparation.
Challenge 3: Science-based innovation and extension	
Agricultural biologicals: Identifying hurdles of use and by a Knowledge, Attitude and Practice (KAP) analysis of stakeholders in sub-Saharan Africa	Exploring interest and sustainable use of agricultural biologicals for crop production. Utilization of agricultural biologicals was improved in target communities, some agro-dealers have considered adding stocks of non-synthetic products in their shops while local government officers have committed to continued support for biological crop protection.
Digitalization of Extension Services in the Southeast Asian Region	Defining pathways for increased implementation and adoption of digital extension services (DES). The project published a book on the potential for DES in Vietnam, Cambodia and the Philippines. It also brought together multiple public and private sector stakeholders and initiated discussions for the roll out of DES
Functions in extension service pathways – Kenya, Sri Lanka, and Laos	improving knowledge concerning the specific structures of extension services in 3 countries. Project member have been contacted by local governments in Kenya and Sri Lanka to support with improving efficiency of extension service delivery and share best practices from other countries.
Women and extension: Arrangements needed for women to access, attend to and implement agricultural advice	Identifying structures that prevent extension services from reaching women and develops gender sensitive approaches to improving extension service provision. A systematic review of the major hurdles faced by women in receiving extension services has been completed.
Challenge 4: Smallholder agriculture within transforming food systems	
Mapping knowledge-, practical-, and policy-level challenges to increase the role of smallholder farmers in e-commerce of fruit products in Vietnam	Improve the utilization of e-commerce by smallholders in the fruit value chain. It has increased smallholder farmers' participation in e-commerce of fruits and their commitment to adopting safer fruit tree cultivation practices.
Unlocking the potential of smallholders for urban food system resilience in Uganda	Enhancing understanding on the role of urban smallholder agriculture in building food system resilience. One local council has revised its staff structure to recruit a horticulture officer, and another has made budgetary commitments to support smallholder farmers
Governance of food systems for improved food and nutritional security in Nairobi, Kisumu and Nakuru Counties in Kenya	Improving policies and practices in food production, value addition and marketing by smallholders in the traditional leafy vegetables value chain. Farmers, and food traders now recognize the nutritional value of traditional leafy vegetable and how to process and cook them.

* The project is shared between Challenge 1 and 4

4. End of Phase 2 Programme Workshop

The End of Phase 2 Programme workshop in Nairobi, Kenya, 13–15 November gathered project participants from all the 17 projects in Sub Saharan Africa and South and Southeast Asia, including the AgriFoSe2030 advisory board members, university partners, practitioners and policy makers from the region. The approach was to identify and capture changes in behaviour, practices and policies resulting from the AgriFoSe2030 projects. Two team members per project from each of the 17 projects attended the workshop. This event enabled strategic reflection over all Challenges' work and achievements as well as broader programme evaluation and networking across the AgriFoSe2030 family.

During the workshop, project researchers and counterparts highlighted and lauded the acquisition of valuable skills for stakeholder engagement, and science communication garnering support, and translating research objectives for non-scientific audiences. This shift from focusing solely on the research knowledge sphere to community engagement and practical output, signifies a transformation in the communication of scientific endeavours, with an emphasis on impacting lives on the ground. The Nairobi meeting also focused on outcome harvesting of key changes from all 17 projects, which were summarized as challenge level outcomes. The capacities developed by researchers during the project period were further mapped and reflections on sustainability of project results were collected. The data collected will form the basis for policy and practice briefs summarizing practical applications of the AgriFoSe2030 model and how change was reached.

The workshop was a great success enabling cross learning between project partners, consolidating the AgriFoSe2030 model and approach for translating science to policy and practices. The full workshop report is found [here](#).

Participants at the workshop in Nairobi



Presentations and panel discussions



Exhibition of key outputs from all 17 projects



5. A selection of AgriFoSe2030 change stories

All the projects in the AgriFoSe2030 Programme are guided by an impact pathway developed through a comprehensive ToC process. This ToC process and the resulting impact pathways focus on the change the project teams will seek to achieve within their project period. Below are select change stories from some of the projects.

5.1 Sorghum production ignites hope for profitable and climate smart agricultural production in Manzawayo village, South Africa

Smallholder farmers are often overlooked as equal players in formal markets, leaving them to sell locally at uncompetitive prices or barter trade which sadly perpetuates the poverty cycle. Siyazisiza Trust, a non-government organisation, who assist smallholder farmers to build profitable agricultural enterprises, gave Fuduka cooperative from Zululand a glimpse of what could be achieved from producing high quality sorghum grain. Planting sorghum can cushion smallholder farmers against total crop failure in the event of climate change induced weather variabilities. The AgriFoSe2030 project was introduced to Fuduka cooperative to bridge the gap between science-based solutions and their adoption in practice. Adoption is often hindered by complex factors, one of which is weak market linkages for smallholder farmers. As such, the core of the project's impact pathway was the key component, to link the farmers to a sorghum market. Through the multi-stakeholder platforms that the project facilitated, dialogue was established resulting in the development of a business relationship.

As the AgriFoSe2030 project came to an end, marketing success had been achieved. While the project initiated and facilitated communication between the farmers and Siyazisiza Trust, direct communication and a business relationship had been established, thus Fuduka cooperative and Siyazisiza Trust look forward to a long-term relationship of marketing success and building climate change resilience. [Read more](#)

5.2 New livestock management practices and enhanced extension services contribute to improved health among small-scale goat herds in Laos

Goat farming is a crucial source of food and income for smallholder farmers in Laos, particularly for marginalized groups such as women and young farmers. Previous development projects targeting goat management in the country had limited success. The AgriFoSe2030 project took a participatory approach, involving researchers, local communities, and government extension officers. Through needs assessments, workshops, monthly farm visits, mentorship, and demonstration farms, the project has seen significant improvements in goat farmers' practices. Farmers have applied new knowledge in areas such as sustainable farming, health, feeding, and shelter, resulting in tangible outcomes like improved pastures, newly constructed goat pens, and enhanced health care for the animals. Importantly, the project has also contributed to the capacity building of extension officers, fostering increased confidence in providing effective support to goat farmers. [Read more.](#)

6. Coming year within AgriFoSe2030

The AgriFoSe2030 programme is functioning well and is progressing according to plan. In the coming year, the project will provide support for harvesting outcomes including change stories to illustrate project outcomes. In order to provide guidance for stakeholders, learning briefs on the AgriFoSe2030 model and how science translation to policy and practice can be attained will be developed and shared. We encourage interested readers to check out the AgriFoSe2030 website (slu.se/agrifose) for new activities.

AgriFoSe2030

Agriculture for Food Security 2030

Translating Science Into Policy & Practice

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