

Annual report 2024

Preamble

In 2024, AgriFoSe2030 worked intensively to complete all 17 change projects and plan for a continuation of the program. The focus was on collecting results, compiling experiences and building on the solid foundation on which the program rests. The change projects have covered several important areas that contribute to SDG 2, leading to new insights, policy recommendations, improved market connections and strengthened capacity among both researchers and local actors. In many places, simple, locally adapted solutions have proven to be effective, confirming the importance of working based on local needs and conditions.

Several scientific outputs were published within the program, where results and experiences from the various projects were reported. This is an important way to show the importance of AgriFoSe2030's methodology – bridging science-based knowledge with practical application and policy development. At the same time, external communication has been strong, with targeted campaigns across social media, collaboration with journalists, seminars, conference contributions and the production of handbooks and video material. Focus was placed on capturing lessons learned from the projects and making visible how research has concretely contributed to change on the ground.

One of the year's most significant contributions came in the form of learning about the diverse ways through which science-based knowledge can be translated to benefit society. Through four "impact learning briefs"—one for each Challenge area—the program distilled what truly works when translating scientific knowledge into societal benefit. Common themes emerged around the value of long-term collaboration, the importance of building long-term trust, and the vital role of researchers as facilitators of change. Several projects showed how seemingly small shifts—such as increasing local government knowledge or giving visibility to female farmers—can lead to larger system changes.

During the year, a program-wide evaluation of the change projects supported by AgriFoSe2030 Phase two was conducted. The purpose was to determine whether the program has achieved the set goals, and to identify what can be improved within the program. The findings were clear: the program is performing well; it holds strong potential for advancing food security and sustainable agriculture and the science translation methodologies are relevant for catalyzing change.

All in all, 2024 was a year of accomplishment and acceleration for AgriFoSe2030. The program has met its goals, energized its network, and strengthened its foundation for the future. With growing interest in its science-to-policy model and an expanding footprint, AgriFoSe2030 is well positioned to keep driving meaningful change in food systems and agricultural sustainability.

Have a pleasant reading!

Professor Sofia Boqvist

AgriFoSe2030 Programme Director 2020–2024

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 contextspecific 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 practices 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.

The AgriFoSe2030 programme works with a Theory of Change (ToC) approach- a systematic methodology for finding and enabling pathways to science-based changes in policy and practices. From programme to challenge and project levels, everyone involved utilizes a ToC approach for planning and evaluating their activities. The ToC's were deployed to guide all of AgriFoSe's 17 change 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. 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.



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

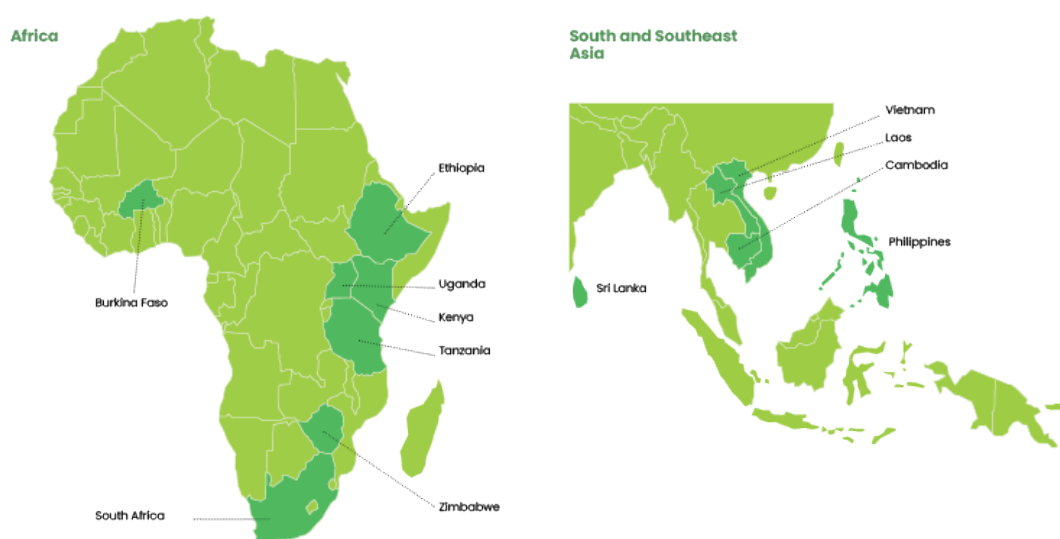
The focus in 2024 was on completing all 17 change projects in good time to allow space for compiling results and planning for a potential programme continuation. This approach provided valuable early insight into project progress and achievements. The programme's built-in flexibility enabled additional financial support for specific projects to carry out final activities essential for maximizing results. These included, for example, final workshops or other events aimed at increasing sustainability and impact.

As the programme approached the end of phase 2, there was a noticeable increase in the number of

scientific articles developed by project teams, with several publications published during the year. These publications play a crucial role in highlighting the effectiveness of the AgriFoSe2030 methodology, demonstrating the value of linking academia with society to strengthen food security, and disseminating the programme's work within the scientific community.

A wide range of outreach activities were carried out during the year to share the programme's results through various channels, including webinars, collaborations with news media, conference contributions, manuals, and handbooks. These are essential contributions to spreading good examples and raising awareness of the programme internationally.

In conclusion, the programme delivered on its plans for 2024 and there was strong commitment from all involved partners and within the consortium. This performance laid a solid foundation for a 2-year cost extension phase.



AgriFoSe2030 partner countries

1.2 Communication and engagement (C&E)

Activities and the path toward outcomes

In 2024, the C&E team continued with providing support for the AgriFoSe2030 change projects with a focus on Monitoring, Evaluation and Learning (MEL). This ensured that project impacts were adequately captured in their final project reports. The C&E team focused on (i) synthesising key outcomes and how this links to the project's impact pathway; (ii) challenges and how they were surmounted; (iii) evolution of project team's capacities and skills (both soft and technical skills), (iv) lessons learned that are vital for facilitating positive change with science translation processes; sustainability of interventions and reflections on project continuity.

AgriFoSe2030 engagements in 2024

Emphasising effective communication, including leveraging social media to amplify AgriFoSe2030's messaging, the C&E team encouraged project teams to capture the attention of practitioners and policymakers and foster more impactful engagement. During 2024, we had different engagements throughout the year that amplified the programme achievements both internally and externally as outlined below:

- Media engagement webinar: aimed to enhance the researchers' ability to bridge the gap between scientific-based knowledge and public understanding, fostering increased awareness, engagement and impact
- Internal seminar on cross-cutting issues: focus on sharing experiences of how cross-cutting poverty reduction, conflict-sensitivity, climate change and biodiversity protection have been integrated in AgriFoSe2030 projects and opportunities to improve these.
- AgriFoSe2030 engagement and presentation on edible insects at the Gothenburg book fair on a stage hosted by Sida in collaboration with SIANI
- AgriFoSe2030 video showcasing and presentation on the science translation methodology at the Development Research conference (DevRes) which took place at Lund University, 21-23 October 2024.
- AgriFoSe2030 collaborated with the Global Challenges University Alliance led by SLU to host a webinar on Theory of Change: Planning and measuring impact in projects and research
- AgriFoSe2030 researcher engagements with journalists in east Africa leading to the publication of media articles



Left: Heather Mackay presented AgriFoSe2030 at the Development Research Conference 2024 in Lund.
 Right: Selorm Kugbega presented the Insect Cookbook produced in challenge 1 at the Gothenburg book fair 2024.

2. Challenge narrative report

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

Activities and the path toward outcomes

In 2024, the four projects under Challenge 1 were completed. Each project contributed to the long-term Challenge 1 outcome: 'Smallholder farmers produce safer and more nutritious food, enabling poor households to provide their families with a healthier, more balanced diet that improves health, productivity, and resilience—especially among women and children'. Additionally, all projects aligned with at least one of the three sub-challenges: i) Reducing post-harvest losses; ii) Connecting farmers to markets; iii) Improving food safety.

The project 'Smallholder goat production in Laos – improving quality of extension services and access to markets', LAO PDR, was launched in late 2020 and focused on enhancing goat production in Laos. Its primary goal was to improve the quality of extension services and market access for smallholder goat farmers, ultimately improving production and increasing consumer access to goat meat. All project activities were completed by December 2023, with the final report submitted in 2024 as planned.

The project 'Improving market access and scaling up trading of safe and nutritious edible insects by women and youths in Zimbabwe' aimed to enhance market access for women and youth while expanding the trade of safe and nutritious edible insects in rural and urban markets across Zimbabwe. Launched in May 2021, the project has progressed on schedule, with no significant delays except for the end-line survey, which was completed in late 2024, and the policy brief, set for completion in the first quarter of 2025.

'Transformation of pastoral livelihoods through enhanced capacity for adaptation of nutrition and commercialisation policies to local contexts: West Pokot-Kenya, Kenya' was a project performed in collaboration between partners in Kenya and AgriFoSe2030 Challenge 1 & 4, aimed to support livelihood transformation among pastoralists in West Pokot. Launched in June 2021, it was completed in 2024 as planned.

The project 'Gender-based approaches for improving food safety, value addition and marketing in livestock systems in western Uganda' was launched in September 2021. The aim was to enhance women's participation in livestock ownership, market access, and value chains by addressing existing laws, policies, regulations, institutional practices, asset control, gender roles, responsibilities, cultural norms, and decision-making dynamics. The team completed activities without significant delays, successfully concluding the project in 2024.

Challenge 2 – Agricultural productivity and ecosystem functions

Activities and the path toward outcomes

During 2024, all five projects in challenge 2 finalised their work.

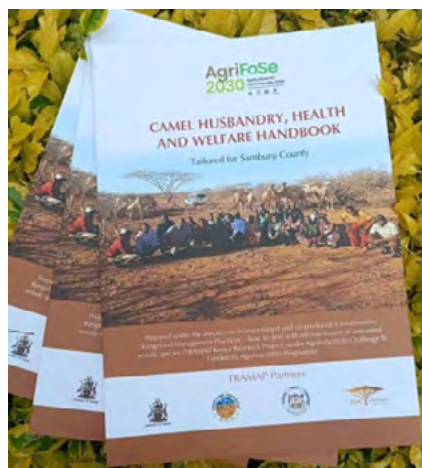
The project on 'Agroecological practices in parklands in Burkina Faso' has ensured the sustainability of the Innovative Platforms, which contain WhatsApp groups for exchange, creation of local cooperatives, an increase of income-generating activities and support to identify key value chain actors. An integrated study of cost-benefits from conventional and agroecological farms (n=160) has been submitted to a peer-reviewed journal, and another one on value chains of three different parkland products is in the making.



From the Burkina Faso Project – Discussions at an innovative platform meeting in Nobere commune.

The project 'Science-based and co-produced transformative Rangeland Management Practices – how to deal with encroachment of unwanted woody species' in Kenya collaborates with several key partners, such as the Samburu County government and the Kenya Camel Association. The project has used a combination of co-learning and co-production processes and experiential field trips. One of the exit outputs has been handbooks for different stakeholders, such as for camel owners.

In the 'Participatory analysis of the conventional-agroecological intensification continuum if increased productivity and sustainability in the coffee-banana systems of the Mt Elgo region of Uganda' project, it is concluded that the farmers in the two districts are in a better position due to improved practices, value chains and market opportunities than before the project started. This includes a better production of the two products. Stakeholders along the value chain are now also known to the farmers and have increased their knowledge on what is required.



A handbook for camel husbandry

The 'Promotion of sorghum-cowpea

intercropping systems in smallholder farming systems in South Africa for climate change adaptation' has made remarkable strides to promote the inclusion of sorghum and cowpea crops within the typical maize production cycles in smallholder farms. One of the project's outcomes was the cooking competition focusing on sorghum dishes to promote the growing of sorghum, which was conducted and made into a movie.

In the Sustainable rice-straw management for improving farmer livelihoods and low environmental footprint in rice-based production systems in Vietnam, 153 smallholder farmers now have a better understanding of and can adopt the new techniques by using fermented rice straw in feeding animals. Thirty rice farmers have been repeatedly trained in mushroom production techniques and are able to apply these techniques to improve their productivity. Moreover, local mushroom producer associations are established, and their members are very active in sharing knowledge and to learn from each other. Local authorities strongly support this organization.

Challenge 3 – Science-based innovation and extension

Activities and the path toward outcomes

The focus of the work during 2024 has been on finalising the final projects, with stakeholder meetings and workshops disseminating results, sharing experiences, collecting feedback and taking the results further. Two of the four projects within Challenge 3 were finalised during 2023, 'Biologicals for African Agriculture' and 'Digitalization of Extension Services in the South-East Asia Region'.

The work in the Biologicals for African Agriculture – identifying challenges hindering innovation and implementation project has also resulted in funding of two new projects that started in 2024 and that are direct continuations of the work in AgriFoSe2030:

1. ['Increasing Sustainability of Agribiologicals by Living Labs in sub-Saharan Africa'](#) funded by Formas
2. ['AgBio4SSA'](#) funded by Formas, the Kenyan National Research Fund, the Tanzania Commission for Science and Technology and the National Research Foundation in South Africa.

The third project in Challenge 3, 'Functions in extension service pathways – Kenya, Sri Lanka and Laos', was finalised in June 2024 after a final workshop in Sri Lanka in April. In Laos, the experiences with multi-stakeholder collaborations were expanded to two new districts, through workshops, trainings and demonstrations. In Kenya, the County assembly members in Embu were particularly interested in the results and wanted further engagements with researchers to improve the existing extension system. Additional feedback sessions could be arranged with stakeholders in the County to upscale the discussions to create greater impact.



Left: Practices on grass silage making during the training for smallholder farmers at Thaphabath district, Bolikhamxay province, by a DAFO staff from Khamkerth district, Laos. Right: Group discussion on the challenges facing extension service provision in Embu County during a feedback meeting held in the Sansiro hotel in Nthawa ward, Kenya.

The fourth project in Challenge 3, 'Arrangements needed for women to access, attend and implement agricultural advice (GenSens)', was finalised in October 2024. The aim was to translate the findings and insights gained from an initial systematic review of the literature on the topic of what arrangements are necessary for women to access and implement relevant agricultural advisory extension, into real policy and practice change on-the-ground in Tanzania.

One of the main outputs from the project was the design and use of a training intervention that, through easy visualization, helped understand what gendered gaps and gendered differences are, how they can arise and what they can mean for agricultural extension interventions.



At a meeting with the Director of Training and Research within the Ministry of Agriculture, the project team was asked to share a summary statement of the project findings, approach and recommendations, together with a concept note for national upscaling that he would like to present to his superiors.

Challenge 4 – Smallholders within transforming food systems

Activities and the path toward outcomes

Challenge 4 achieved a successful wrap-up and closure of all four funded projects during 2024. All four projects have at least one scientific publication drafted or already under review from their work.

From the project 'Governance of food systems for improved food and nutritional security in Kisumu and Nakuru Counties in Kenya' a scientific publication on the 'Levels of iron, zinc and calcium in selected African traditional leafy vegetables cooked and consumed in Kenya' was drafted. In addition, a manual on Sustainable Urban Agriculture Food Systems in Kenya was finalized and disseminated. This was a joint effort from local extension workers and project researchers in collaboration with FAO Kisumu. The manual provides visual and accessible information on the preparation, planting, harvesting, processing and cooking of nutritious and high-value traditional leafy vegetables from the region.

In the project 'Unlocking the potential of smallholders for Urban Food System Resilience', Uganda, one of the highly successful urban farmers involved in the project was supported by the team to produce a manual on climate smart and resilient urban farming. In addition, the project team, together with Challenge leaders, has written an article examining how the use of the Theory of Change approach influenced the project and supported positive impact. This article was accepted in 2025 .

The project 'Transformation of pastoral livelihoods through enhanced capacity for adaptation of nutrition and commercialization policies to local contexts, West Pokot', Kenya, is linked to a PhD project. The collaboration with the PhD student has generated one manuscript published,



Launch of the manual on cultivation and preservation of indigenous vegetables



A handbook for camel husbandry

one is currently under second review and one is in draft form. These manuscripts explore links between farm diversity and diet diversity, farm types and food security and nutritional content of diets.

The project 'Mapping knowledge, practical, and policy-level challenges to increase the role of smallholder farmers in e-commerce of fruit products in Vietnam' has also successfully completed their work and built strong communication with regional and national policymakers. They produced a policy brief on the topic of e-commerce outlining some key recommendations for future policy design. In addition, a scientific article has been submitted to a journal for review on the topic of 'Challenges to improving smallholder farmer engagement with e-commerce in peri-urban and rural areas of Vietnam'.

3. Impact learning briefs

Each of the four Challenges compiled an impact learning brief highlighting lessons on promoting research impact for funders, commissioners and managers of science translation and research for development initiatives. Integrating science-based knowledge into policies and agricultural practices is complex and often hindered by limited resources and poorly developed methodologies. However, AgriFoSe2030 has demonstrated that meaningful improvements can be achieved at multiple levels despite relatively small project budgets. The briefs reflected on the science translation process and gave examples of what worked and could be improved. It was acknowledged that change requires time, that interaction, trust, consistency, and diplomacy have been crucial, and leadership from researchers is necessary.

The most important lessons learnt are summarized below:



Manual written by one of our very successful small-space urban farmers, with support from the project team

- Combining science with local knowledge and providing practical evidence of science-based methods for improving smallholder livelihoods has played a key role in facilitating solutions so that local government officials can provide better support to smallholder farmers. There was, for instance, high value in peer-to-peer learning and ‘see for yourself’ approaches, including model farms and farmer field days, to garner support and facilitate policy change. This reflects the dynamic interplay between grassroots efforts and policy frameworks.
- Investing in the mid-to-long-term mentoring of researchers’ skills and capacities has proven beneficial, particularly for early-career researchers, facilitating their professional development and ability to engage with stakeholders at different levels.
- Building on previous relations between our researchers and local stakeholders helped establish interest and trust. Yet even where prior relations were lacking, showing understanding of the context, being clear at the outset on what cannot be delivered, and following through on commitments facilitated the creation of successful new working relationships.
- Recognizing the complexity of societal challenges and taking the time to engage multiple stakeholders, adopt a co-creation approach and identify the context-specific needs and hurdles, beyond the initial assumptions, is crucial to make true impact.
- Local governments can change their policies/budgets/priorities if they see value in an initiative and they understand how it meets a local need.

The briefs are available at the AgriFoSe2030 website: www.slu.se/agrifose

4. Outcome review of Phase 2

In October 2024, an outcome review of Phase 2 was initiated and performed by an external consultant. The review used the programme level ToC as the outcome framework and evaluated the following outcome categories: i. Research partners’ capabilities for science translation enhanced, ii. Changes in stakeholders’ knowledge, behaviours and relationships, and iii. Changes in stakeholders’ capacities, structures, systems and practices.

The review used a combination of document review and key informant interviews. Out of the 17 Challenge projects, four were selected for a ‘deep dive’ case study. The reported outcomes illustrate good progress along the programme ToC towards impact, providing a rich range of examples of more deep-seated, structural changes that have yielded practical benefits for smallholder farmers and their communities in the project settings in Africa and Asia.

In the ‘deep dive’ projects, local respondents confirmed many of the outcomes and highlighted areas of strength and points for improvement. These outcomes are especially notable given the relatively short duration of the projects – from 18 months to three years – and represent good foundations for change to be sustained.

Important results of the evaluation include:

- Increased awareness and understanding among stakeholders on the importance of collaboration between smallholder farmers and extension services. Reported by most projects, we can highlight examples in Burkina Faso, where the project catalysed co-learning between farmers and extension services on how to manage parklands sustainably, while in Kenya, stakeholders recognised the importance of establishing feedback mechanisms in developing flexible extension services that are more responsive than traditional models.
- Six projects reported outcomes relating to collaboration between smallholder producers and other stakeholders (Laos, Uganda, Zimbabwe, Burkina Faso, South Africa and Kenya). This outcome is key in the theory of change as supporting stakeholders to collaborate is a foundation for project outcomes to be sustained into the future.
- Five projects reported outcomes where smallholder farmers established groups to amplify their voices on issues that affect them. Examples of this in Laos, Uganda, Zimbabwe and South Africa highlighted

how small producer groups are enabling men and women farmers who had previously not worked together to have dialogue, share skills, coordinate on marketing, engage decision makers and regulators, and co-develop solutions to shared problems.

Medium-term, structural changes relating to changes in stakeholders' capacities, structures, systems and practices were also reported:

- Many projects helped to establish inclusive improvement platforms, bringing value chain stakeholders together for collective benefit. For example, in Zimbabwe, the project supported three formal insect collection and trading groups. In the Uganda milk value addition project, a mini milk value-addition production facility was built, providing women producers with a hygienic and equipped facility for their products. In Burkina Faso, stakeholders from three municipalities, including farmers, extension staff, NGOs, municipalities, and market actors, collaborated in innovation platforms to enhance sustainable production and community livelihoods.

5. A selection of AgriFoSe2030 change stories

All the projects in the AgriFoSe2030 Programme are guided by impact pathways 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 selected change stories from some of the projects.

a) Small-scale interventions ignite powerful shifts for Gender Transformation in Tanzania

In Tanzania, women form most of the agricultural labor, yet they face systemic barriers that hinder their productivity and decision-making capacity. AgriFoSe2030's project on Arrangements needed for women to access, attend and implement agricultural advice (GenSenS) set out to address gendered imbalances in extension service access by adopting a transformative gender approach, utilizing creative, visual and participatory methodologies. The project leveraged scientific evidence base and stakeholder engagement to elicit action from stakeholders and decision makers.

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

"Low quality grain." This echoes some of the prejudices of most large and formal markets whenever agricultural produce from smallholder farms is mentioned. As a result, smallholder farmers are often overlooked as equal players in formal markets, leading them to sell locally at uncompetitive prices or barter trade which sadly perpetuates the poverty cycle. When the AgriFoSe2030, Challenge II project "Sorghum-cowpea rotations for climate change adaptation," was introduced, anticipation for change was high, but not without a little uncertainty and risk.

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

Goats can provide a valuable source of food and income for smallholder farmers in Laos. Marginalized farmer groups, such as women and young farmers value food security and income earning opportunities from goat farming due to the comparatively low level of resources and farming experience it requires. The AgriFoSe2030 project sought to understand the challenges faced by smallholder goat farmers and collaborated with them to identify how new knowledge and improvements in animal management practices could lead to healthier, more valuable goats.

6. Coming years within AgriFoSe2030

The interest in AgriFoSe2030's approach remains high, as it has demonstrated a successful model for translating science into improved practice and policy while reinforcing the role of universities in society. Throughout the programme, it has become evident that this area has been under-prioritised by national and international organisations and stakeholders.

Towards the end of the year, Sida granted a two-year cost extension for the program, which enables the program to continue evolving—deepening its engagement with African universities, building an alumni network in Asia, and progressively transferring ownership to local partners. This shift is not only strategic—it's essential for long-term sustainability. Encouragingly, partner institutions are already stepping up, with strong leadership and support from management level.

By reorganizing the programme and working through regional networks, there is strong potential for the AgriFoSe2030 approach to spread and become sustainable. Engagement from the proposed university partner universities in Sub-Saharan Africa has been strong. In Asia, the programme plans to support a network of AgriFoSe2030 alumni who can serve as entry points for engagement in other existing networks and initiatives.

The programme developed documents to guide the implementation of the cost extension period. These included, for example, frameworks for collaboration with African partners and the Asian alumni network, Memorandum of Understanding, a matrix for project selection, and a plan for cooperation with regional universities.

7. Conclusion

The AgriFoSe2030 programme continued to function strongly throughout the reporting period, with all change projects completed according to plan. Several projects also received additional funding to support final key activities. The programme successfully strengthened partnerships with key universities—University of Nairobi, Kyambogo University, and Chinhoyi University of Technology— which will play central roles during the upcoming cost extension period. Notably, there is clear buy-in from the Vice-Chancellors' offices, positioning these institutions as strategic entry points for future scaling efforts.

In addition to project completion and team support, significant effort was placed to compile lessons learned from Phase 2 and evaluate the AgriFoSe working model. The assessment confirmed that the model is effective, with the programme delivering meaningful impact through capacity building and change projects. Nearly all planned activities within the four thematic challenges were delivered as scheduled. The programme maintained a strong balance between financial resources, planned activities, outputs, and achieved results. Overall, AgriFoSe2030 progressed successfully and in complete alignment with its objectives.

AgriFoSe2030

Agriculture for Food Security 2030

Translating Science Into Policy & Practice

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