AgriFoSe2030

Agriculture for Food Security 2030
- Translating science into policy and practice

SLU · Lund University · SEI · University of Gothenburg

Agriculture for Food Security (AgriFoSe2030)

Translating science into policy and practice

The challenge

Around 2 billion people are undernourished. These people are often smallholder farmers and found overwhelmingly in low-income countries in Asia and sub-Saharan Africa. Food security will become an even more urgent challenge, as Asia and Africa are expected to experience the bulk of population growth in the coming decades as well as being directly affected by impacts of climate change.

To meet the ambition of Sustainable Development Goal (SDG) 2 – "... *ending hunger, achieving food security, improving nutrition and promoting sustainable agriculture ...*" – agricultural production needs to be sustainably intensified in the poorest regions. Smallholder farmers, who account for more than half, perhaps as much as 80%, of global agricultural production, are increasingly being seen as key actors in this process.

A homegarden in Sri Lanka

These smallholders, to a large extent both poor and vulnerable, are consequently under increasing pressure to produce more and better quality food, but face severe difficulties in doing so. The ongoing transformation of smallholder agriculture in Asia and sub-Saharan Africa is complex and thorny, and will inevitably have both negative and positive consequences for large groups of the rural poor.

Increasing local food security will require active contributions from all sectors in society: government, private sector and civil society, along with international development cooperation organizations. An agenda is needed that supports government interventions and policies, institutional reforms, improved practices and massive long-term investments in infrastructure and value chain capacity. It needs to be evidence-based and tailored to specific country conditions in order to be fully effective.

Key tasks include improving the productivity, profitability and sustainability of smallholder farms. Increasing participation and influence in farming, agribusiness and entrepreneurship opportunities for women and youth will also be crucial. Enhancing market access and

Morris Agaba, scientist and molecular biologist at the Biosiences eastern and central Africa Hub (BecA) in Nairobi.

value chain opportunities for smallholder farmers could not only contribute to food security but also generate positive developments such as new agribusinesses, new jobs and livelihood opportunities.

Supporting low-income countries to develop their own capacity to catalyse and govern this transition is critical, now more than ever.

The response: AgriFoSe2030

Agriculture for Food Security (AgriFoSe2030) is a programme directly targeting SDG 2 by building capacity to synthesize and communicate the latest scientific knowledge to support the transformation of smallholder agriculture in low-income countries, particularly in sub-Saharan Africa and South and Southeast Asia. It is supported by the Swedish International Development Cooperation Agency (Sida).The programme aims to contribute in the following key areas:

- Promoting sustainable intensification of agriculture towards more efficient use of human, financial and natural resources;
- Increasing the participation and influence by women and youth within farming, agribusinesses and entrepreneurship; and
- Improving access to markets by providing linkage to and development of value chains for farm produce.

AgriFoSe2030 targets researchers, policy-makers, practitioners and development actors in countries in sub-Saharan Africa and South and Southeast Asia.

Activities

AgriFoSe2030 has four cross-disciplinary themes, which are described in the text boxes below/overleaf. Within these themes, the programme will carry out the following activities:

- Training courses for researchers from target countries on synthesizing relevant scientific data and research findings as well as on related communication and policy engagement;
- Exchanges of young researchers between institutions in the target countries and Swedish universities or Consultative Group on International Agricultural Research (CGIAR) institutes; and
- Production of knowledge syntheses, meta-analyses, critical reviews and policy briefings summarizing state-of-the-art scientific knowledge and research findings.

AgriFoSe2030 is implemented by a consortium of scientists from the Swedish University of Agricultural Sciences, Lund University, Gothenburg University and Stockholm Environment Institute. The programme, which runs from 2015 to 2019, is funded by the Swedish International Development Cooperation Agency (Sida).

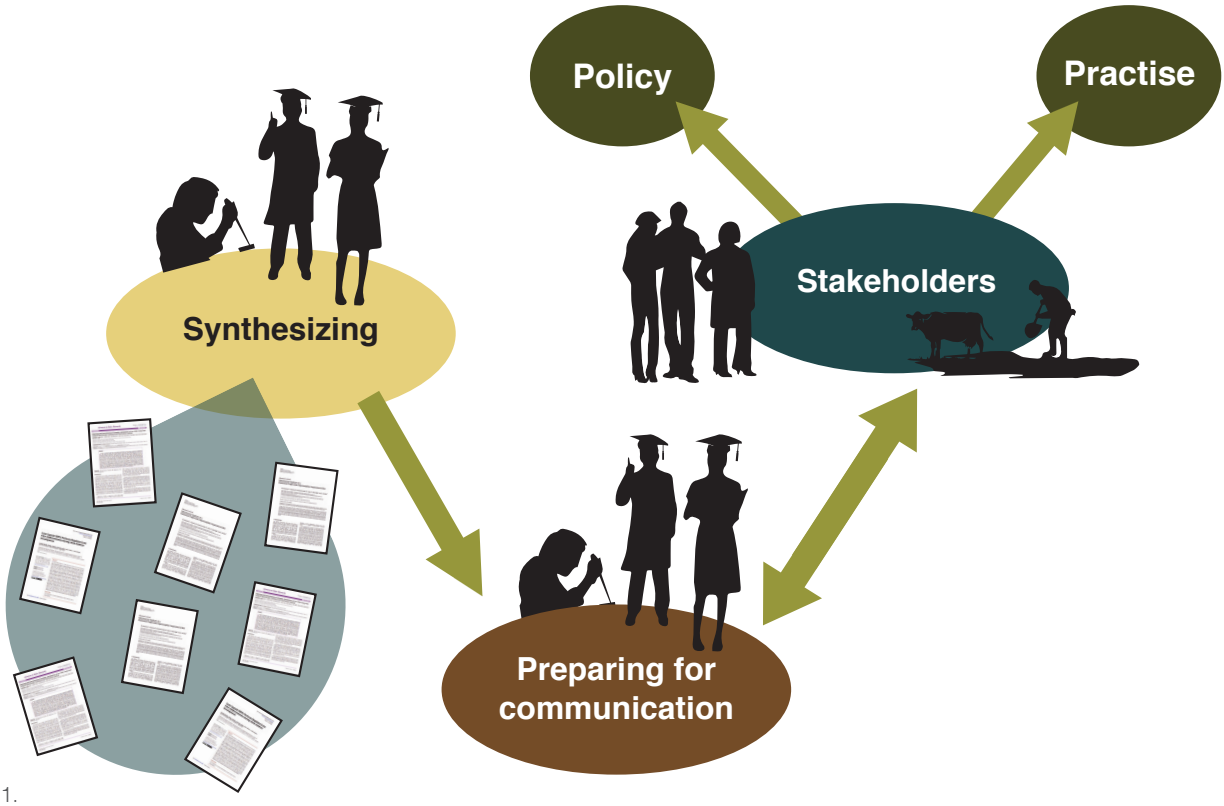

Figure 1.
A schematic illustration of how researchers from target countries and Sweden within AgriFoSe2030 collaborate and build capacity to synthesize, communicate and co-create scientific data and research findings in dialogue with various stakeholders, in support of evidence-based decision-making and improved practice.

AgriFoSe2030 Theme 1: Social and economic dimensions of smallholder-based agriculture and food security

Raising smallholder productivity requires interventions to remove barriers to technology use, enhance women's participation, and stimulate inclusive and efficient agricultural markets. This theme focuses on:

- The role of gender and generational aspects in agricultural production systems, input and commodity markets, and livelihood sources beyond agriculture;
- Markets, value chains, infrastructure and their impact on local and regional conditions for agriculture and food security; and
- Demographic change, mobility and connections between rural and urban areas and how they impact food security.

AgriFoSe2030 Theme 2: Multifunctional landscapes for increased food security

Smallholder farmer systems are often integrated in multifunctional landscapes with a mixture of trees, crops and animals. Multifunctional landscapes generate a multitude of services and products that need to be managed from the perspective of trade-offs and synergies between various desired environmental and socioeconomic goals. This theme focuses on:

- Land, trees and water: how their integrated management can support sustainable intensification;
- The opportunities, challenges (e.g. scarcity of natural resources) and trends (e.g. climate change and urbanization) affecting multifunctional land use; and
- Upscaling of sustainable multifunctional smallholder farming systems, through increased market access and improved value chains.

AgriFoSe2030 Theme 3: Increased productivity and diversity in smallholder cropping systems for increased food security

The productivity of smallholder farms in sub-Saharan Africa and South and Southeast Asia is often low, though there is considerable variation between regions and countries – and even between households within the same village. Theme 3 aims to support sustainable increases in productivity and diversity in smallholder cropping systems. This theme focuses on:

- Analysis of yield gaps (the shortfalls between potential and actual production) and related causes and interventions for sustainable intensification; and
- Consequences of intensification, diversification and market introduction on the quality of life in households and the sustainability of production.

AgriFoSe2030 Theme 4: Livestock-keeping among smallholders for nutritious diets and increased food security

Several million people in low-income countries suffer from low intake of high-value protein and trace elements. Thus there is a great need to increase the production and consumption of meat, milk, egg and fish in low-income countries. Livestock production and sale, and adding value to livestock products, is also an important way for small-scale farmers to increase their incomes. This theme focuses on:

- Increasing productivity in livestock production while reducing climate impacts and ensuring sustainable use of natural resources;
- Mechanisms to facilitate market inclusion of poor small-scale livestock producers; and
- Development of animal production systems and markets that benefit women and young smallholders.

Communication and engagement

AgriFoSe2030 strives to bridge the gaps between science, policy and practice. The programme therefore has a team working specifically on communication and engagement.

AgriFoSe2030 will foster dialogue through:

- Forums where scientists can engage with policy-makers and practitioners on how science can best support the transformation and development of smallholder agriculture for improved food and nutrition security in low-income countries;
- Arrange training courses for researchers from sub-Saharan Africa, South and Southeast Asia on how to engage relevant stakeholders including practitioners, policy-makers and development actors in the co-development of knowledge and evidence based analysis; and
- Disseminating and communicating key messages and outcomes from a series of knowledge syntheses, meta-analyses and critical reviews of research related to food security.

This brief was written by the Agrifose2030 team

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