

Impact brief: Lessons learnt

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Challenge 4: Promoting smallholder farmers' autonomy and participation within transforming food systems

Amidst rapid urbanisation and the expansion of urban food markets, smallholder farmers have an opportunity to improve their livelihoods in a sustainable manner and enhance their market engagement. However, existing barriers often hinder their possibilities, necessitating policies and interventions to recognise and address these challenges. Focusing on solutions to enhance the participation and sustainability of smallholder farmers, a portfolio of science translation projects aimed to bridge these gaps by translating scientific knowledge into policy and practice actions, facilitating the integration of smallholders into decision-making, or to markets, and promoting sustainable agricultural development.

How was research to impact achieved?

- From 2020, an innovative portfolio of science translation projects worked for over four years with smallholders in Kenya, Uganda and Vietnam on food systems challenges.
- Side by side with smallholder farmers, researchers worked on challenges such as resilient livelihoods, smallholder production, processing and cooking techniques, food systems governance, and e-commerce.
- Projects have successfully brought science to improve grassroots practices, and strengthen policies, especially at local levels, boosting the participation of smallholder farmers in food value chains and their governance.
- Combining science with local knowledge has helped raise the value of local crops, improve standards and strengthen smallholders' market access in all three countries.
- Data, knowledge and evidence have played a key part in facilitating solutions so that local government officials can better support smallholder farmers.
- Key to the projects' success is the combination of in-depth understanding of local needs, with scientific support that is responsive to the local context: high-tech, cutting-edge science is not always necessary.

Food systems, how they are transforming, and the role for smallholders

The rapid growth of urban and rural food markets is creating opportunities for smallholder farmers in low- and middle-income countries. Important drivers of expanding food demand are population growth, urbanisation and rising incomes. Food is increasingly being purchased, yet agricultural production for markets is still a challenge for many smallholders, while farm sizes often are declining, and the distinction between urban and rural is blurring. These changes, in combination with shifts in dietary patterns towards processed foods and more convenient, often less healthy, foods, and the continued rise of the 'Big Food' industry, are contributing to the transformation of food systems.



Project members visiting Mr Juma Wepukhulu's intensive home gardening with vegetables for consumption and sale, Mbale. Credit: RUFs

Smallholder farmer–trader households face high stakes and several constraints when trying to adapt to these evolving conditions, particularly in the face of changing climate. Shifting their production mix from staple crops to higher-value products often requires secure access to land, access to capital and new knowledge and skills. In addition, smallholders often operate under already difficult, and often times unsustainable conditions.

Challenge 4 of AgriFoSe2030 focuses on the role of smallholder agriculture (crop or livestock) within these transforming food systems. Focus includes considering how gender, generation or other dimensions of identity can limit a smallholder’s access to inputs such as fertiliser or seeds, access to information and extension services, or access to loans and credit systems, as well as to sales channels and marketing strategies. A key question Challenge 4 considers is: what are the policies and interventions needed to facilitate a more enabling environment for smallholders to participate in, and benefit from, the rapid transformations currently taking place within many countries’ food systems?

New insights on solutions for farmers

The portfolio of projects has generated significant insights regarding solutions tailored for smallholder farmers in any setting. Projects have demonstrated the power of lifting and amplifying smallholders’ voices to policymakers and stakeholders through platforms like WhatsApp groups, empowering them in the local decision-making processes. For example, the Resilient Urban Food Systems in Uganda project supported establishment of two City Food Systems Platforms where farmers and technocrats could discuss together the challenges facing them. These included bouncing back from recent flood damage or boosting resilience to increasingly common droughts. Having one platform for multiple types of stakeholders including farmers, council staff, agricultural officers, and even some other governmental and private actors has really been an eye-opener for many and has served to breakdown traditional hierarchical and attitudinal barriers.

“We are all farmers here”

The climate-related challenges to food system resilience in Uganda is equally affecting urban

elites who often source some of their own food from farms and gardens they own too. Empathy has been enhanced and identities shared. This was exemplified when one of the senior administrative officers in Kasese stood up in a workshop and noted that ‘we are all farmers here’.

Research teams have been successful in engaging with smallholders, practitioners, and policymakers at different levels. Teams have facilitated stakeholder dialogues and knowledge co-creation, to the benefit of farmers, agricultural extension officers traders and researchers. For example, the co-writing of a manual on production and processing of indigenous leafy vegetables in ways that retain their high nutritional and market value in the Governance project in Kenya was a learning process for all. Local extensionists gained new knowledge communication skills, traders boosted their customer relations with advice, and farmers could enhance yields and value capture from the manual guide. The delivery of this product generated much buy-in and pride and served as a tangible outcome from the less tangible behind-the-scenes relation-building and knowledge work.

Supporting the knowledge and confidence of farmers to use e-commerce platforms in Vietnam reduced their dependence on middlemen, enabling direct farmer–customer relations and increased farmer profits. This was especially beneficial to those living in remote areas in Vietnam (often ethnic minorities), opening new markets and boosting regional trade. Solution such as this are replicable for smallholders in many Asian contexts where internet provision is wide, reliable and smartphone ownership high.

Researchers as trusted knowledge brokers

The way our research teams have learnt to grow into their roles as translators of research knowledge into practical and comprehensible know-how has been a key driver of change. They have learned how to mediate with multiple stakeholders to build a shared engagement and understanding of their projects. These new skills complement researchers’ more traditional roles as data-gathering experts.

Challenge 4’s ways of working demonstrates that strategic planning and project design, informed by a theory of change approach, with managerial and

technical support from Challenge Leaders, can promote positive change in-field and generate tangible benefits for farmers.

Engaging local government actors

Another important lesson learned is the ability of local governments to shape policies, budgets, and priorities to address the needs of smallholders when engaged to understand the challenges faced and the solutions available. Local governments can change their policies, budgets and priorities if they see value in initiatives or suggested new practices meeting local needs. This occurred in both Uganda and Kenya, for example in West Pokot when the County government decided to allocate funds for wider staff and farmer training on the dynamics of group formation, following their participation in our project's exchange visit to a neighbouring farmer cooperative. In Uganda one of our towns created a new staff position as Horticultural Officer, inspired by our project. These changes emphasize the need for initiatives to demonstrate tangible value and alignment with local contexts, as well as the value in peer-to-peer learning and 'see-for-yourself' approaches, to garner support and facilitate policy change. Such learnings reflect the dynamic interplay between grassroots efforts and policy frameworks.

Leveraging researchers' expertise to facilitate change

Sometimes small-scale farmers, as well as local council decision-makers, can feel overwhelmed by the sheer number and magnitude of challenges they face in resource-poor contexts. With few formal employment opportunities and facing significant climate-change threats and food system transformations, it is easy to feel out of options. Researchers are well-placed to support the evaluation of threats and filter through multiple competing demands. They can bring their expertise and knowledge of other contexts to bear to help to pinpoint key priorities and generate solutions. Thus, research knowledge and skills can play a pivotal role in driving policy and improving practices within agricultural landscapes, and Challenge 4 projects have demonstrated this in many ways.

For example, through laboratory testing, insights

into the nutritional content of locally sourced leafy vegetables after cooking with traditional methods have been pivotal in dispelling inaccurate local beliefs of farmers, and consumers but even of local nutritional officers. Similarly, intimate knowledge of food market standards and regulations, effectively shared with farmers and traders, has helped raise understanding and elevated produce standards, enabling farmers to command better prices.

We saw that research teams coming in and noting the value and legitimacy of a local crop or breed, of a local tradition, or of a local group, could raise status in the eyes of power brokers and decision-makers, thus giving a greater role within the context.



Ethnic minority farmers using smartphones to explore an e-commerce platform during training. Credit: Rachmat Mulia

Researchers have also contributed significantly by bringing data, knowledge, evidence, and stories from other places to the attention of local stakeholders, thereby supporting change. Even seemingly small and simple training sessions, such as those focused on farm record keeping or processing tips, have generated enthusiasm from smallholders and other stakeholders who can see the utility. It's essential to recognize that high-tech, cutting-edge science may not always be necessary or appropriate for every context, highlighting the importance of tailoring interventions to suit local needs and context.

Effective ways of translating science

Several novel approaches to working have surfaced, offering valuable insights into effective project implementation and stakeholder engagement:

- To mitigate the impacts of turnover in county staff and leadership due to political change, projects

began engaging individuals at various levels, including lower-level technicians and mid-level managers within local government. This strategy aimed to maintain continuity and prevent the loss of support when new personnel assumed office following regime change.

- 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.
- Research teams have demonstrated a commitment to inclusivity by adapting to specific local needs, such as allowing children and their caregivers to attend meetings or visits. Moreover, their firm and clear advocating for equitable treatment among stakeholders (such as all sharing the same bus transportation and all staying at the same hotel) was crucial for levelling hierarchies and removing biases.
- Building on previous relations between our researchers and local stakeholders was helpful in establishing 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 (such as large fund injections or major infrastructures), and following through on commitments, facilitated the creation of successful new working relationships.
- In the Uganda project, incorporating local council workers as remunerated members of project teams has fostered a sense of teamwork, buy-in, and provided a local contact person for projects.
- National-level policy impact in a short project requires the necessary researcher-policymaker relationships, as the Vietnamese e-commerce project was able to successfully leverage upon.

Key take-aways for future programmes

Programmes aiming to work on similar challenges could consider the following key take-aways:

- The perspectives, skills and disciplinary training of Challenge Leaders provided valuable strategic insights and support in project management, helping teams maintain focus amidst competing

priorities and when pulled in multiple directions by stakeholders. Additionally, Challenge Leaders have facilitated mentoring and learning across projects, offering guidance when similar challenges arose.

- Holding separate meetings with each stakeholder first to sensitise them on the project's aim and the importance of listening to diverse perspectives, prior to having the official project opening bringing all stakeholders to the same space, was critical in fostering collaboration and setting a positive tone for the Ugandan and Kenyan projects. This sensitisation emphasised listening to other's views, that there was no supreme expert, and promoted co-learning. This was a departure from how our researchers had worked in the past. It increased meeting flow and eliminated situations where one stakeholder 'lectured' to the others. With this approach project leads played a mentorship role and set the collaborative tone for the project.
- There has been a recognition of the need for researchers to acquire competencies in planning, managing and supporting change, translating their scientific knowledge, and co-creating new practices and policies with actors at different levels. These are skills not usually emphasised in researcher training programmes.
- Creating platforms for discussion and debate among stakeholders has been well-received, fostering collaboration, exchange co-creation.
- Peer-to-peer learning exchanges and study visits have been effective in broadening perspectives opening minds to new possibilities, showing what had been achieved in another location and breaking down barriers between stakeholders.
- Involving non-researcher stakeholders in project activities, such as council workers, local traders, value chain actors, e-commerce agents or often excluded residents, was successful in promoting collaboration and bringing diverse perspectives.
- Acknowledging that change requires time, interaction, trust, consistency, diplomacy, and leadership from researchers, has been crucial.

AgriFoSe2030

Agriculture for Food Security 2030

Translating Science Into Policy & Practice

Agriculture for Food Security 2030 (AgriFoSe2030)

The AgriFoSe2030 programme is dedicated to overcoming the hurdles to achieving the sustainable development goals (SDGs), with a primary focus on promoting sustainable agriculture and ensuring food security via research translation. Its framework comprises four cross-disciplinary 'challenges', each aimed at addressing different aspects of SDGs 1 (no poverty) and 2 (no hunger) and related goals.

The challenges are:

Challenge 1 - Improving access to safe and nutritious food

Challenge 2 - Agricultural productivity and ecosystem functions

Challenge 3 - Science-based innovation and extension

Challenge 4 - Smallholder agriculture within transforming food systems

Poverty alleviation, gender equality, climate resilience, and biodiversity conservation are integrated as overarching priorities.

About Challenge 4: Smallholder agriculture within transforming food systems

Challenge 4 aims to translate scientific knowledge into policy and practice actions that will facilitate improvement in smallholder livelihoods, better integrate smallholders into food markets, and promote a more sustainable agricultural development and societal well-being.

Credits

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This brief highlights lessons on promoting research impact for funders, commissioners and managers of science translation and research for development initiatives.

