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Advancing Research, Policy, and Capacity for Food System Transformation: Synthesis of Achievements from the Feed the Future Innovation Lab for Food Security Policy

Danielle Resnick, Steve Haggblade, Todd Benson, and Eric Crawford

Introduction

Since 2013, the Feed the Future Innovation Lab for Food Security Policy (FSP) has combined multidisciplinary research on emergent issues facing food systems with policy analysis to provide an enabling environment for improved food security. Supported by the U.S. Agency for International Development (USAID), FSP is implemented through a consortium of three research institutions: Michigan State University (MSU), the International Food Policy Research Institute (IFPRI), and the University of Pretoria. These policy research institutions, together with local institutions, have provided data and analysis that national and subnational governments and regional bodies can use to generate informed policies around food and food security. This engagement has involved supporting national governments' and regional organizations' agri-food systemrelated policy processes with evidence generated through applied research on food systems. This evidence enabled participants in those processes to consider the merits of various policy options with a stronger conceptual and applied understanding of the issues at stake. As outlined in Box 1, FSP efforts targeted five main activity areas, with a regional emphasis on Africa and Asia.

This brief reviews FSP's achievements from 2013 to 2018 and discusses some of the key lessons learned. The FSP project has contributed to building more informed, effective, and sustainable policy systems for food security by focusing on frontier research related to agri-food system and nutrition transformation, long-term and responsive policy engagement with a diverse range of stakeholders, and strengthening the capacity of local researchers, policy analysts, and civil society through training events, university networks, and partnerships with local research institutes. In each of these three areas, key lessons have been identified that are discussed below.

This Brief is based on the Feed the Future Innovational Lab for Food Security Policy Synthesis Report 1 published under the same title and by the same authors.

Box 1. Overview of the Organization of the FSP Innovation Lab Project

The FSP Innovation Lab is a Leader with Associates award funded under a cooperative agreement through USAID's Feed the Future Initiative. Its activities are supported with core funding from USAID's Bureau for Food Security through the Leader award, and from USAID country missions and regional offices through buy-ins and Associate Awards. To strengthen agri-food system—related policy processes and to expand knowledge and capacity for effective policy design and implementation, the initial design of FSP specified five activity areas:

- **Component 1:** Country/regional-level collaborative research on farms, firms, and markets and formulation and analysis of policy options.
- **Component 2:** Country/regional-level capacity building for policy formulation and implementation (data, analysis, advocacy, consultation, coordination, implementation).
- **Component 3:** Global collaborative research on how best to strengthen policy processes and build policy capacity.
- **Component 4:** Engagement in global policy debates on food and nutrition security based on field-level research and analysis that is done in a manner that deepens and strengthens the basis on which food policy debates take place.
- **Component 5:** Engagement on a strategic analytical agenda and support to donor policy and strategy.

In addition, FSP's research and applied policy efforts singled out four cross-cutting themes—gender, youth employment, nutrition, and climate change—for specific attention, as appropriate. Country- and regionallevel activities (i.e., Components 1 and 2) have received core funding as a precursor to, or together with, USAID Mission buy-ins or Associate Awards.











Agri-Food System Transformation

Over the past five years, FSP researchers have documented the transformation of agri-food systems, with a major focus on Africa and, in Asia, Myanmar. Four dimensions of agrifood system transformation received the most attention: diet changes, post-farm processing and distribution, farming, and factor markets. Specifically, rapid urbanization, coupled with steady increases in per capita income, are driving rapid change in consumer diets with mixed nutritional implications. While these changes include increased consumption of fresh and animal source products often beneficial for relatively poor consumers' nutritional status, data from eastern and southern Africa also indicate that dramatic changes have already occurred in the share of purchased food that is highly processed, even among poorer households. This creates a major policy trade-off since, on the one hand, such foods translate into growing rates of hypertension, overweight, obesity, diabetes, and cardiovascular disease. On the other hand, as urban markets grow, there are supply-side pressures for improved food packaging, preservation, and quality. Although many African cities have developed modern retailing and supermarket systems, increasing evidence points to a "quiet revolution" in wholesaling, processing, and logistical operations driven by emerging small and medium-sized agribusiness firms entering these supply chains (Muyanga et al. 2019).

These demographic changes, and their influence over consumer demand, have accelerated adoption of more input-intensive practices, including productivity-enhancing purchased inputs, such as fertilizer and improved seed, as well as labor-saving technology, such as herbicides, mechanized land preparation, and mobile mechanical threshers. For instance, by 2016, roughly one-third of cropproducing households in Ghana used mechanical tillage for land preparation, much of it through hiring-in tillage services from tractor-owning farmers (Diao et al. 2017). In Mali, cereal farmers in the southern part of the country applied herbicides on more than half of their maize and sorghum plots by 2015. In doing so, they control weeds at half the cost of hand-weeding (Haggblade et al. 2017). With the declining share of labor used on producers' own farms, projections from eastern and southern Africa indicate that the share of post-farm employment increases steadily during agri-food system transformation (Tschirley et al. 2015).

In addition to labor, land markets are also affected by these trends. The growing commercialization of land in Africa has resulted in a class of medium-scale farms, between 5 and 100 hectares, whereby land formerly allocated to local people by traditional authorities increasingly is being sold if there are buyers willing to pay the right price for it. FSP research on land tenure security stresses the growing importance of legal recognition of property rights, especially for women and youth, which can encourage long-term investments in land that contribute to agricultural productivity growth (Jayne et al. 2019).

Policy Processes and Policy Engagement

These dimensions of agri-food system transformation are increasing pressures on governments both to ensure that the opportunities associated with these changes will benefit their citizens and to mitigate disruptions that may be associated with these changes. Given the need for effective policy responses, FSP researchers have examined the policy processes through which governments determine their vision for agri-food system development, regulate transformation processes, and accordingly allocate scarce financial, human, and institutional resources.

In doing so, the FSP consortium has advanced theory and practice on pathways to policy change in at least two key ways. First, FSP researchers have demonstrated that policy impact requires a deep understanding of the underlying policy processes at the regional, country, and subnational levels. Specifically, FSP contributed to the development of the Kaleidoscope Model of Policy Change, which outlines 16 key variables that researchers and policymakers can consider when identifying entry points for advancing policy changes (see Resnick et al. 2018). The Model was applied in a range of cases, including micronutrients in Malawi, South Africa, and Zambia (Babu et al. 2016; Haggblade et al. 2016; Hendriks et al. 2016) as well as input subsidies in Ghana, Tanzania, and Zambia (Mather and Ndyetabula 2016; Resnick and Mather 2016; Resnick and Mason 2016).

Secondly, FSP researchers actively pursued diverse modes of engagement with government actors, local research institutes, civil society, and donors, to generate discussions, mobilize coalitions for reforms, and monitor changes in policy design modalities (Box 2). In some instances, especially where there have been large data gaps, FSP leveraged primary survey research to inform policy design, such as in Myanmar, where new data on land use and farmer profitability informed government decisions to reduce restrictions over the use of paddy land. Likewise, in Senegal, one of the most comprehensive datasets was compiled on all segments of the value chain for several major agricultural products and inputs through a new structure known as the Local Analysis Network which facilitated a network of collaborating local research institutions working together on a single integrated research program. In other cases, such as the produce cess in Tanzania, the engagement has included uncovering implementation gaps that impede wellmeaning policy designs from having the intended impact. In still others, such as with regards to fertilizer subsidy programs in Malawi and Zambia or coffee price setting in Rwanda, it involved monitoring and evaluating extant policies to suggest whether key refinements are needed. In these different circumstances, FSP researchers learned the importance of adapting policy recommendations to political and ideological realities, recognizing where agricultural

Box 2: Modes of Engagement used by FSP to Improve Research-Policy Linkages

- **Dialogues and symposia:** In Tanzania, the Annual Agricultural Policy Conference enables government, the private sector, researchers, and civil society to learn about FSP-supported research, to highlight progress toward reforms, and to identify new areas of policy priority. In Malawi, FSP country project (NAPAS) initiated the Malawi Land Symposium series, which provided a platform for land and agriculture sector stakeholders to discuss issues related to land and agricultural commercialization. This platform enhanced the involvement of the Ministry of Lands and land sector stakeholders, which influenced the National Agricultural Investment Plan's (NAIP) focus on land tenure security.
- *Embedding policy advisor in a ministry:* In Malawi and Tanzania, policy advisors have been embedded within the Ministry of Agriculture, while in Malawi, a policy advisor was also located within the Ministry of Planning. In Myanmar, the country project director has an appointment as policy advisor in the Department of Planning. This proximity to policymakers increases the ability of research to respond to short-term demands of high-priority policy issues while also increasing the likelihood that policymakers will access and digest rigorous research, potentially influencing their thinking.
- **South-South learning:** A variety of forums have been held between policymakers from Africa and Asia in order to exchange experiences and promote cross-country learning on agricultural mechanization. Tours to Bangladesh by Ghanaian and Nigerian policymakers, as well as an agricultural mechanization forum hosted in Ethiopia in 2017, exposed African decision-makers to a broader "menu" of market-based policy options to consider, from successfully mechanizing Asian countries.
- **Parliamentary briefings:** In Kenya, Myanmar, Nigeria, and Tanzania, making presentations to parliamentarians gives research findings an audience beyond the executive branch. Moreover, since parliamentarians in such countries typically lack access to research facilities, such briefings improve their capacity to exercise oversight.
- Journalist briefings: The training of journalists, such as in Malawi, is critical to improve media awareness of food security issues. By providing subject-specific context for journalists, such training aimed to improve the accuracy and scientific content of their articles and identify leverage points to push policy reform. In Kenya, pre-conference meetings with journalists and their editors has allowed for in-depth coverage of research findings and increased the likelihood that findings are accurately framed. In Nigeria, there has been ongoing training with Senate Media on policy communications.
- *Action-oriented research:* Involving government officials in the research process can increase the likelihood that findings are locally owned. In Ghana, government officials were integrated into the research team looking at mechanization, giving the Ministry of Food and Agriculture a first-hand assessment of the problems with its AMSEC program. In Nigeria, agricultural policymakers from 33 state governments and the Federal Capital Territory of Abuja were exposed to a data and analysis training event hosted by FSP aimed at identifying priority crops. The resulting policy notes have been used by some state governments in negotiations with private sector actors.

policies had trade-offs with other development objectives, and committing to long-term engagement with a broad range of policy champions, including subnational governments, civil society, and the private sector.

Capacity Strengthening and Partnerships

Just as global dynamics have influenced the nature of agrifood system transformation in recent years, changes in developing countries with respect to communication technology, education levels of researchers and government officials, and the array of civil society actors necessitates novel thinking about how to approach capacity building. FSP provided a natural lab for experiments in building capacity for policy research, with an emphasis on three main approaches.

A first approach involved networking with universities to build the human capital that will enable future policy research. This was a major objective of FSP's Nigeria project whereby research teams often consisted of an FSP consortium researcher, a Nigerian faculty member, and a Nigerian graduate student. This allows FSP researchers to ensure that their analysis is locally informed and guided by policy relevance, while the Nigerian counterparts gain exposure to new research skills and the opportunity to publish in international outlets. FSP also has established partnerships with specific universities in Tanzania and Myanmar.

A second approach includes partnering with local research institutes and think tanks, such as Tegemeo in Kenya and the Indaba Agricultural Policy Research Institute (IAPRI) in Zambia. Experiences varied by country in ways that suggest how the organizational structure (independent think tank or institute tied to a public university), funding, leadership, and incentives have affected each institute's success and long-term viability. A third approach includes a range of training activities, including media training with journalists on food security issues in Malawi, Nigeria, and South Africa, as well as market analysis and modeling training to teach policy analysts how to generate outlook projections for particular commodities. A number of other trainings were facilitated by the creation of novel tools, such as an integrated framework for gender analysis and a database to track policy (in) coherence across legislation and strategies related to food security at both the national and regional levels (Babu et al. 2019).

A lesson derived from the experience of FSP is that training courses are most effective when they are complemented by opportunities to apply material on the job and when they include staff across levels of seniority. Collaboration with university staff offers many benefits, but care must be taken to ensure that such collaboration does not become a distraction from faculty members' teaching and mentoring responsibilities. Research institutes are more likely than university professors to respond to short-term policy needs, but their ability to exert policy influence depends on the quality of such institutes' leadership, their ability to retain competent staff with competitive pay structures, and a sustainable fundraising strategy (Babu et al. 2019).

Conclusion

With its three-pronged focus on research, policy, and capacity, FSP has made important advances over the past five years in both Africa and Asia. While recognizing that any engagement in the food security arena requires a degree of humility, this brief summarized some of FSP's achievements and lessons about what works, where, and when to advance global food security. The project underscores that successful policy influence will continue to require a blend of tailored human and organizational capacity building, with focused research on the knowledge frontier, to enable developing countries to resolve complex policy challenges on their journey to self-reliance.

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