

Farmer groups key to boosting technology adoption in Kenya

Farming in Kenya’s arid regions is challenging because of low and erratic rainfall, land and water depletion, and climate change. Although decades of agricultural research have produced effective technologies to increase productivity, these have not been adopted by farmers. This project aims to develop innovative strategies for accelerating large-scale adoption and scaling up of durable farming systems in three regions of Kenya.

The challenge: getting the word out

Many technological solutions to food security in Kenya are already known. The Kenya Agricultural Research Institute (KARI) has developed improved crop varieties and agricultural practices that increase yields in arid and semi-arid areas and contribute to more sustainable water and soil management. Yet, despite decades of agricultural extension programs, participatory research projects, and efforts to encourage knowledge integration and sharing, few smallholder farmers are adopting these proven approaches. As a result, the number of Kenyans suffering from hunger has risen.

Farmers share lessons and successes

Engaging farmers in evaluating improved crops and practices and sharing their lessons and successes with more farmer groups is proving to be an effective way to scale up technology adoption — and one that can continue long after the project ends.

Farmers sharing their knowledge with other farmers has been key to the project’s success. The project team identified 54 farmer groups in three semi-arid counties in Kenya’s Eastern Province and invited them to participate in an evaluation process called Primary Participatory Agricultural Technology Evaluations (PPATEs). Through these PPATEs, farmers play a central role in decision-making, including how and what data are collected and how results are used.

This required an innovative project design that allows farmers, extension agencies, and researchers to interact directly with farmers in their communities. Instead of adopting a highly rigorous and research-focused approach to data collection, the project team developed a more flexible model based on

ongoing research and technology evaluations that highlight the importance of local practices, technologies, and knowledge. This tactic creates opportunities for greater farmer ownership of the project.



IDRC / PANOS, SVEN TORFINN

Members of a Kivani farmer group harvesting cowpeas from their evaluation plot

Combining Canadian and Kenyan expertise

The CIFSRF project draws on experts from several research fields.

Kenya Agricultural Research Institute: Crops, soil/water management, postharvest technologies, socioeconomics, and market analysis

McGill University: Ecological economics, gender, ecosystem services, natural resource management, land tenure, institutional frameworks, nutrition, health, and knowledge integration

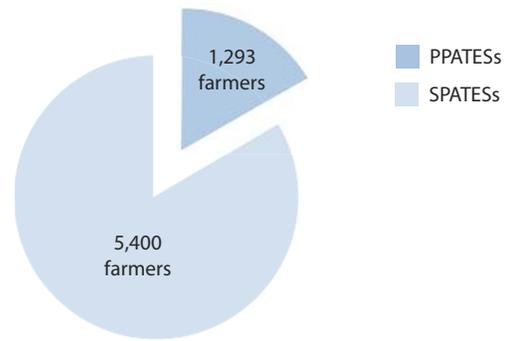
Kenya Medical Research Institute: Nutrition and health

Scaling up the technologies and practices began after the first growing season when PPATEs participants identified another 216 farmer groups, involving more than 5,400 farmers, to carry out Secondary Participatory Agricultural Technology Evaluations (SPATEs). The SPATEs groups chose which technologies they would adopt and worked with their PPATE mentors to put them into practice during subsequent growing seasons.

Impressed by the success of the PPATE/SPATE model, farmers are now organizing to explore marketing opportunities.

For example, although not part of the original project, several groups have established tree nurseries based on improved varieties and agroforestry practices. In Tharaka-Nithi county, 13 farmer groups have started tree nurseries and have already potted up close to 6,000 mango seedlings.

FIGURE 1: Increased field testing of technologies with SPATEs



Market opportunity groups

Farmers are more likely to implement new practices and stick with them, the project team found, if they see direct economic benefits (i.e., increased productivity, better means of processing and storing, and better knowledge of markets and pricing).

To explore these economic benefits, the 54 farmer groups have established 18 market opportunity groups — at least a third of their members are women (Figure 2). These groups’ links with the private sector will help ensure that they can continue growing and selling high-value crops well after the project ends in 2014.

FIGURE 2: Activities of the market opportunity groups





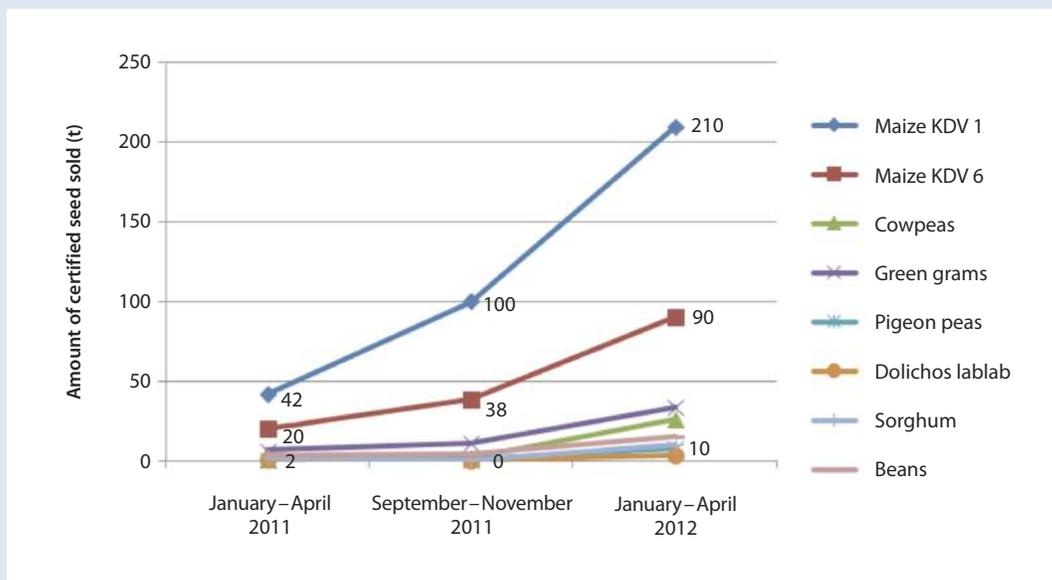
KARI Seed Unit certified seed ready for the market

Buying and selling seeds

Farmers cited high costs and lack of local supply as barriers to adopting high-value traditional crop seeds. In response, nine farmer groups are working with Freshco Seeds, a private-sector producer and distributor of certified seeds in Kenya, and the KARI Seed Unit as part of a pilot project to establish commercial, community-based seed systems throughout rural regions. Freshco is training farmers (PPATEs and SPATEs) in the use of certified seeds, crop agronomy, postharvest handling, and seed marketing.

As a result, while ensuring a sustainable source of certified seed to farmers Freshco has expanded its sales and distribution network to more rural areas within the trial districts. In just one year, the company's sales increased more than five-fold, from 75 to 394 t (Figure 3).

FIGURE 3: Freshco seed sales continue to increase in all seven project districts



PROJECT DETAILS

Title: Scaling up agricultural innovations in Kenya

Website: www.mcgill.ca/globalfoodsecurity/research-initiatives/kari

Lead researchers

Dr. Lutta Muhammad, Kenya Agricultural Research Institute, Kenya
Dr. Gordon M. Hickey, McGill University, Canada

Partners

Canada: McGill University
Kenya: Kenya Agricultural Research Institute, Kenya Medical Research Institute

Country: Kenya

Funding: CA\$4.3 million

Duration: March 2011 to August 2014

For more information on this project, contact:

Pascal Sanginga, Senior Program Specialist, Nairobi, Kenya (psanginga@idrc.ca), or Kevin Tiessen, Senior Program Specialist, Ottawa, Canada ([ktiessen@idrc.ca](mailto:ktienssen@idrc.ca)).

Visit www.idrc.ca/cifsrif to learn about other projects funded by the Canadian International Food Security Research Fund.

The **Canadian International Food Security Research Fund (CIFSRF)** is a program of Canada's International Development Research Centre (IDRC) undertaken with the financial support of the Government of Canada provided through Foreign Affairs, Trade and Development Canada (DFATD).



Foreign Affairs, Trade and
Development Canada

Affaires étrangères, Commerce
et Développement Canada



IDRC | CRDI

International Development Research Centre

PO Box 8500, Ottawa ON Canada K1G 3H9

Telephone: +1 613 236 6163 • Fax: +1 613 236 7293

cifsrif@idrc.ca • www.idrc.ca/cifsrif