

INSIDE

Building Capacity through State Training [A1](#)

A Recipe for Success: Introducing fertilizer blends to farmers in Ethiopia [A2](#)

Changing Hands: A new model for selling seeds to farmers [A3](#)

Announcements & Events



Paving the Path for Gender Equality in Ethiopia's Farm Sector

Women make up about half of the labor force in Ethiopia; but while their contributions are plentiful, women and girls face discrimination when accessing—and making decisions regarding—education, agricultural information and inputs, land, and other assets to aid food production. “If women and girls are left behind, we will never develop,” said Aduugna Waggra, Deputy Director General at the Ethiopian Institute of Agricultural Research (EIAR), at a workshop hosted by the EIAR on July 7-8, 2014.

The workshop, organized in partnership with the Ethiopian Ministry of Agriculture's Women's Affairs Directorate, the Ethiopian Agricultural Transformation Agency (ATA), IFPRI's Research for Ethiopia's Agriculture Policy (REAP) project, and the CGIAR Research Program on Policies, Institutions, and Markets (PIM), drew a crowd of 70 experts from diverse organizations working toward gender equality in Ethiopia.

The event covered topics from gender inequalities in ownership and control of land in Africa to the role of gender in technology adoption. James Warner, IFPRI-REAP Research Coordinator, and Leulseged Kasa, REAP Research Officer, presented an analysis on male- and female-headed households throughout Ethiopia, based on data collected by Ethiopia's Central Statistical Agency (CSA) that included a sample size of 45,000-48,000 households. As opposed to male-headed farm households, female-headed households tend to own less land, operate smaller farms, and harvest lower yields.

“It is necessary to understand the potential differential impacts of agricultural interventions on women, men, girls, and boys,” said Cheryl Doss, a development economist at Yale University and the leader of PIM's strategic gender research. Dr. Rehima Mussema, Gender Research Director at the EIAR, identified the status and prospects for

gender mainstreaming in Ethiopia's Agricultural Research System and emphasized that more work is needed to understand the inequalities between men and women, and how to remedy them.

On the second day of the workshop, Doss, assisted by Caitlin Kieran, PIM's Senior Research Assistant on gender, led an interactive workshop on the challenges and benefits of sex-disaggregated data collection and analysis. The participants displayed an impressive amount of data collection, analysis experience, and gender expertise. Participants broke into groups to identify relevant research questions, the gender components of these questions, and the data necessary to address them.

The workshop was the first step in bringing together people from many different organizations to streamline efforts to close the gender gap in Ethiopia. One group consensus is that future data collection should pay more attention to the situation within households to show the gaps between men and women. Participants also acknowledged the challenges of collecting sex-disaggregated data and emphasized the importance of understanding the context in which information is gathered. "Gender issues are

complicated, interwoven with culture, economics, social issues, religion...there is a propensity to make mistakes by having a simple number. How can we improve the data that are collected?" Warner asked.

Moving forward, the ATA, with technical assistance from the IFPRI-REAP project, plans to develop gender-based agricultural indicators for the next phase of Ethiopia's Growth and Transformation Plan (GTP-II). Such indicators are essential for monitoring progress toward achieving gender equality. As Songporne Tongruksawattana, a climate economist from the International Maize and Wheat Improvement Center (CIMMYT), stated, "It is genuinely important that agricultural research for development be gender-responsive and equitable."

*Excerpts taken from the article, [Bridging the Divide Between Men and Women In Ethiopia](#), originally posted on [reap.ifpri.info](#).

Building Capacity through Stata Training

Over the past few months, James Warner, IFPRI-REAP Research Coordinator, based in Addis Ababa, Ethiopia has led several trainings with Ethiopian researchers. Just over 100 researchers in Ethiopia's agricultural system have received training to increase their ability to run analysis by using Stata.



On April 24-26, 2014, Warner, with assistance from Leulseged Kasa, research officer, and Gashaw Tadesse, research collaborator, led a workshop with 32 researchers from the Agricultural Transformation Agency (ATA) and the Ethiopian Institute for Agricultural Research (EIAR). Six of the participants were women. The workshop introduced participants to Stata for both data management and analysis. Before the course, the majority of the class did not have previous exposure to Stata.



At the request of the deputy director of Ethiopia's Central Statistics Agency (CSA), Warner and Leulseged held a three-day workshop with CSA analysts on a basic introduction to Stata. The training took place from April 28-30, 2014. Twenty-one people attended the workshop (4 women and 17 men). The trainees expressed great interest in Stata. Many reported that they are in a position to work with and assist programmers in their respective directorate who are responsible for generating summary statistics that are used to write reports.

"I gained a lot from the workshop about the various complexities involved in collecting sex-disaggregated data. I have also learned a great deal about important research and policy questions in relation to gender and the types of data needed to design gender-sensitive policies and programs."

-Meron Belay, Gender Technical Advisor, Save the Children International



From June 5-7, 2014, Warner and Leulseged provided an introductory training on data management and analysis using Stata, covering topics such as descriptive statistics and regression analysis. The training was organized in collaboration with the Ethiopian Institute for Agricultural Research (EIAR) and the East African Agricultural Productivity Program (EAAPP). The training was held in Kulmsa Agricultural Research Center (KARC), which is the Wheat Regional Center of Excellence (WRCoE), of EIAR where the EAAPP is based. Twenty-seven (25 males and 2 females) socio-economics, research extension, and gender researchers attended the training.



From July 10-12, 2014, Warner and Leulseged led a Stata training for twenty-three senior staff members from the Ethiopian Institute for Agricultural Research (EIAR). The advanced course focused on running intermediate regression analysis using Stata. By the end of the training, participants possessed a better understanding of the basic theoretical foundations of OLS regressions, impact evaluations, as well as more advanced techniques for running analysis.



A Recipe for Success

Introducing Fertilizer Blends to Farmers in Ethiopia

On June 1, 2014, the first fertilizer blending facility in Ethiopia was inaugurated in the Oromia region at the Becho-Woliso Farmers' Cooperative Union. The facility, along with four more under construction, will play a leading role in supplying farmers with fertilizer blends that target missing nutrients in their soil. The years leading up to the inauguration included many actors to make the concept of a blending facility into a reality.

It started with a simple observation. The soil types in Ethiopia vary considerably throughout the country. It is evident when driving through the countryside where variations in the soils' color and texture are visible to the naked eye. But traditionally, all soil has been treated the same. Farmers typically apply two types of fertilizer and disperse the same amounts, regardless of the crop or soil needs.

Back to basics

In 2009, the International Food Policy Research Institute (IFPRI) conducted a soil diagnostic study in Ethiopia. Key recommendations included creating a tailored soil fertility plan that attends to local soil conditions and a national soil information infrastructure. When the Ethiopian Agricultural Transformation Agency (ATA) was formed in 2011, soil became a priority for the agency. There was added momentum because within the Ministry of Agriculture, Professor Tekalign Mamo, State Minister of Agriculture, who is also a soil scientist, was very interested in pushing the agenda forward and had been for some time.



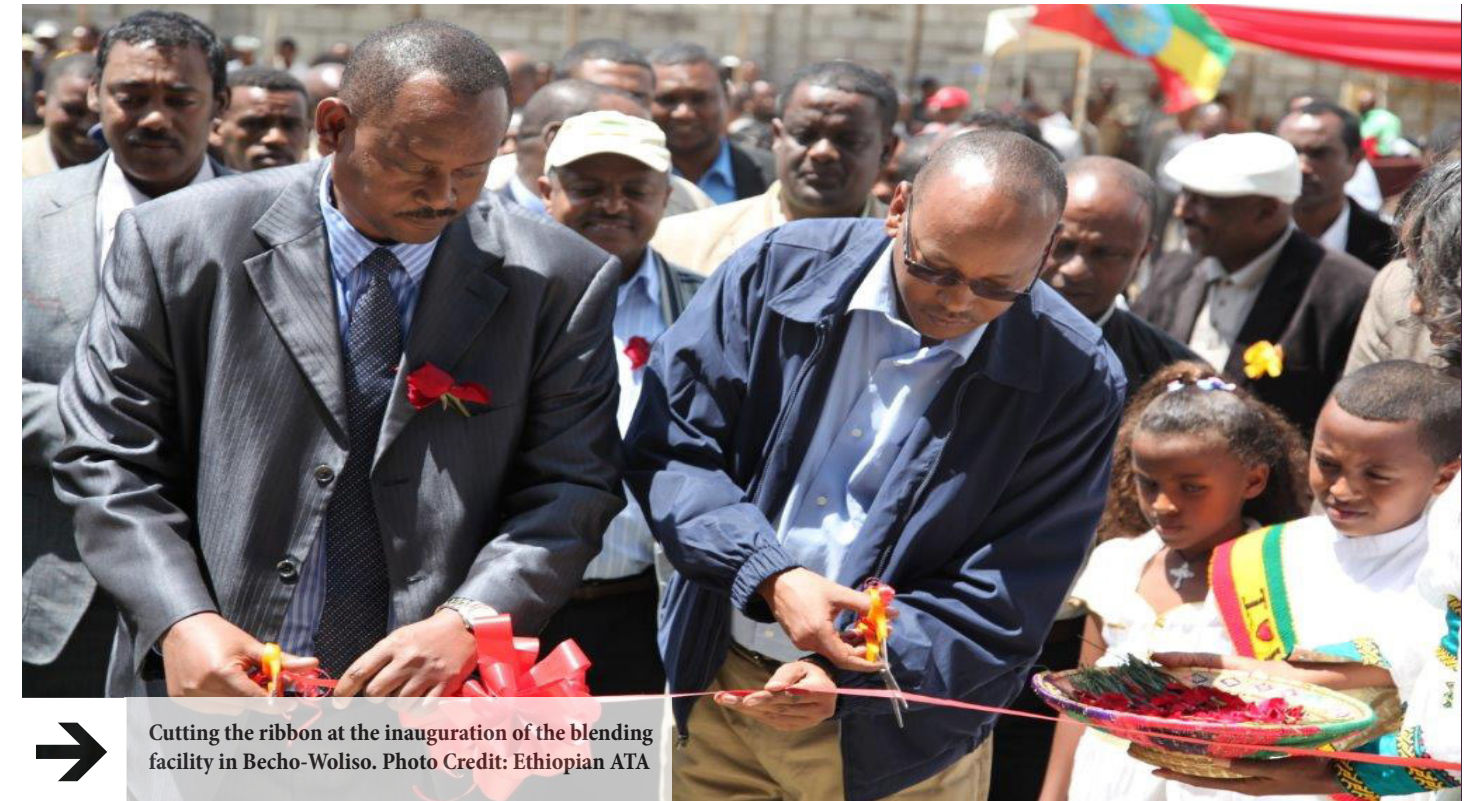
Under construction: The blending facility in Becho-Woliso before the structure was completed. Photo credit: IFPRI/ M Mitchell

"There are a number of studies showing that farmers in Africa are harvesting more nutrients from the soil than they are putting in. As a result, there is a depletion in nutrition, which will be reflected in [the] food and in human health," says Shahidur Rashid, IFPRI Senior Research Fellow and Project leader of the IFPRI-led Research for Ethiopia's Agriculture Policy (REAP) project.

Fertilizer blends—a novel concept in Ethiopia

"Ethiopia has not really changed its fertilizer policy, probably in 30 years, and was just importing and distributing DAP and Urea," says Vanessa Adams, Project Director of the USAID Agribusiness Market Development Project that is funding the bulk of the new facility in Becho-Woliso. Making the switch to blended fertilizers is a big change from the norm in both "operations and types of fertilizers."

Creating fertilizer blends means that farmers will now have the right mix of ingredients to replenish missing nutrients in the soil. "Blending fertilizer enables the country to introduce specific nutrients that the soil is lacking, and the crops need in order to grow," said Tim Durgan, Project Coordinator for the Blending Facility Initiative at the ATA. "In combination with the soil mapping and the soil testing that the ATA has done, we now know what nutrients are deficient, and we know what nutrients the crops need to achieve maximum yields."



Cutting the ribbon at the inauguration of the blending facility in Becho-Woliso. Photo Credit: Ethiopian ATA

Choosing Becho-Woliso Cooperative Union as the site for the first blending facility was a strategic decision. "The area is highly productive," says Dejene Hirpa, General Manager of the cooperative union that will run the blending facility in Becho-Woliso. He explained that during the planting season, the demand for fertilizer in the area is high. Additionally, management at the union is top-notch - Becho-Woliso is "one of the top five cooperatives in the country," according to Adams. Lastly, the location of the facility is "optimal," according to Adams, as it is close to Addis Ababa and not far from Adama, a transportation hub in Oromia. This location makes it ideal for distribution.

Jeff Ivan, VP from Yargus Manufacturing, has been working with the ATA and International Fertilizer Development Center (IFDC) for two years to design a fertilizer blending system for the first facility. During a field visit in May, Ivan was on-site to inspect crates full of state-of-the-art equipment that would be installed by the company later that week. Ivan explained the easy-to-use automated blending system where "operators can simply enter in each nutrient that is required, and the kilograms of each product," which will be blended with "a high-level of accuracy." At full operational capacity, the facility will crank out 50 to 60 thousand tons

of fertilizer each year. Another design feature is that as business grows, blending capacity can be stepped up.

According to Durgan, Ethiopia will need at least 18-20 blending facilities to address the nutrient deficiencies throughout the entire country. "The success of the first facilities will determine how soon the others will get up and running," he says.

“ Human health and soil health are related. Humans get nutrition from food. Food gets nutrition from [the] soil. That linkage is critically important for food security and sustaining the global food system.”

-Shahidur Rashid

to come." When discussing private sector investment and looking at model facilities, such as the Woliso blending unit, Adams continued, "It's important because...already people [in the private sector] are coming in and saying, I want to do this too."

* To read IFPRI's soil diagnostic study of Ethiopia, visit reap.ifpri.info to read the report, [Fertilizer and Soil Fertility Potential in Ethiopia](#).

Changing Hands

A new model for selling seeds to farmers in Ethiopia

For maize farmers in Ethiopia, buying seeds through the formal system is not always reliable. Sometimes seeds are delivered too late for the planting season or the wrong type of seed is delivered; often there are seed shortages, and the seed quality can be low. “Farmers can only access seed through the primary cooperative in their [local] kebele (district), which gives them limited options—especially when seed is unavailable or not at the appropriate level of quality,” says Robel Alemu, Program Associate at the Ethiopian Agricultural Transformation Agency’s (ATA) Seed Program.

This situation leads many farmers to turn to informal sources where seed is recycled from a previous harvest. Encouraging farmers to purchase improved seed varieties that are “genetically superior” with better resistance to pests, disease, and drought or other unfavourable weather conditions can help improve crops yields.

In 2011, the Ministry of Agriculture (MoA) launched a pilot program in the Amhara region to promote direct marketing of mostly hybrid maize seeds from both public and private seed producers to farmers. By 2013, with support from the ATA and Regional Bureaus of Agriculture (RBoAs), the program was expanded to the Oromia and the Southern Nations, Nationalities, and Peoples (SNNP) regions and included 31 kebeles from all three maize-producing regions.

The idea behind the Direct Seed Marketing (DSM) program was to remove the government as the middleman in the marketing of improved seed varieties and to allow seed producers to sell directly to farmers. By encouraging competition, farmers can decide where and when they buy their seeds, which will in turn encourage producers to

cater to farmers’ demands and find more efficient ways of doing business. “This enables real-time market forces to drive production and pricing of seed,” says Alemu. Another change under the piloted DSM program is that the seed sold to farmers includes a seed quality certificate; farmers can also inspect the seed before purchasing, which is all done at the point of sale.

Last year, IFPRI researchers were asked to evaluate the new seed marketing model to determine whether the DSM model was a success and should be scaled up to the national level. Todd Benson, David Spielman, and Leulseged Kasa documented their findings in an IFPRI [report](#) released in May.

Researchers found that the seeds were delivered on-time, farmers reported better overall seed quality, and seed sellers had lower levels of carryover stock at the end of the planting season. And farmers weren’t the only satisfied customers. Ninety percent of seed sellers in Amhara and Oromia were satisfied with the changes, reporting that they would participate in a DSM program down the road.

However, the report finds that there is room for improvement. “The DSM presents a useful opportunity to press Ethiopian seed producers to become marketers of the seed that they produce,” say the report’s authors. According to Benson, “Marketing will lead to better provision of information to farmers.” With additional information on the types of hybrid seeds that are available and the benefits that improved seeds provide, farmers will be able to make informed choices that better meet their needs.

Many of the report’s recommendations have been

incorporated into the next phase of the program in order to make the model more effective. For example, seed producers now bear the risk for low-quality seed or carryover stock, whereas prior to the DSM program, the government would bear these risks and incur any resulting costs. This has led to a decline in carryover stock; early ATA estimates show a 1-4 percent rate of carryover stock among seed producers, which is significantly lower than in past years. Additional improvements include open pricing, which allows retailers to set their own price without government interference; in addition, seed marketing agents are now evaluated and certified before they can sell seeds to farmers, and researchers, marketers, and producers

are now linked through contracts. “This has created accountability among value chain actors and improved commercialization of new and existing varieties,” says Alemu.

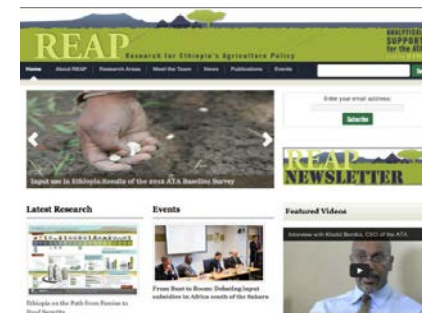
With the initial success of the DSM program, the MoA plans to scale up the pilot in 2015 to span the four main cereal-producing regions – Amhara, Tigray, SNNP and Oromia – in more than 100 kebeles.

*Read IFPRI’s evaluation of the DSM pilot, [Direct Seed Marketing Program in Ethiopia in 2013: An Operational Evaluation to Guide Seed-sector Reform](#), on reap.ifpri.info

Announcements

10/01

3...2...1 Liftoff!
Countdown to REAP’s New Site



Research for Ethiopia’s Agriculture Policy (REAP) is preparing to launch its new [website](#) on October 1, 2014! Designed with a fresh look and easy navigation, we hope you’ll enjoy exploring the new site for the latest information on REAP.

Upcoming Events

10/15

Multi-Market Modeling of the Ethiopian Agricultural Sector

This one-day training for ATA staff will demonstrate the use of an Excel-based model that simulates the interaction of the markets in Ethiopia for maize, teff, wheat, and sorghum. In addition to examining the design of the model and the assumptions behind it, the training will also show how the model can be used to simulate the impact of events, such as increased maize yields, rising demand for teff, and changes in wheat import policy.

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