

PROLINNOVA Ethiopia: A support system for farmer innovators

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At the end of our fourth and final year as university students, we had the amazing privilege of attending the PROLINNOVA International Partners' Workshop in Ethiopia in May 2015. Over the course of the year that followed, we had the opportunity to reflect on the unique guiding principles that drive the work of PROLINNOVA, and have, in the process, come to understand its true value. Country platform partners from various nations came together in Axum, Ethiopia, for the 2015 workshop to discuss the network's progress, plan for its future, and to get to know PROLINNOVA Ethiopia's local farming partners in the Axum region.

Mrs. Haregu Gobeza, an orchard farmer from the Rama *woreda*, was one of the farmers we met. She is now well known in her community for having transformed 12 acres of infertile land into a prosperous mango orchard and for employing and supporting eight people with a salary, housing, and food. Gobeza, who initially faced difficulty raising her income level from sales of vegetables grown on a rented plot of devalued land, was able to grow her network of extension agents and agricultural NGOs to drastically transform her surroundings. Through a long and gruelling process, the dry rocky land many had denounced as useless, would go on to produce 12 hectares of highly profitable mango trees. To take a chance on a new venture, Gobeza boldly utilized an unconventional method by manually removing stones and transporting in fertile soil. From a mere hectare, the orchard grew to 6,700 mango trees in 10 years, each of which are valued at \$9,000 birr (\$407.89 USD). Some of the specific technical innovations employed at the orchard include a flash flood irrigation system, a biogas plant for energy production, and the use of Desmodium plants to fight off pests. Today her orchard is a complex business operation that draws in many local job seekers, researchers, and non-governmental institutions.

In her community, Mrs. Gobeza is now an authority on social entrepreneurship as well as self-sustaining farms. She is able to oversee the research which takes place on her orchard, hire full-time employees as well as student volunteers, and train women farmers so they may be able to apply their knowledge elsewhere. Mrs. Gobeza began a working relationship with teenagers in her community who face pressure to leave school in order to work full-time; she offers these youth the option to earn income in her orchard. The success of her mango gamble deeply influenced the nature of the relationships Mrs. Gobeza would go on to build with her own neighbouring community as well as outside visitors. University researchers completing doctoral theses on self-sustaining farms or irrigation systems must live with Mrs. Gobeza and interact with her as a *knowledge producer and a scientific experimenter* on whose terms experiments are set up.



Figure 1: Haregu Gobeza's 12-acre mango orchard



Figure 2: Haregu speaking to visitors from PROLINNOVA at her orchard

To grasp how effective PROLINNOVA's approach is for creating social and institutional change, it becomes critical to outline some of the opportunities and pathways created to help farmers increase their network and share their innovations. Best Practices Association (BPA), a local PROLINNOVA partner in Ethiopia, works with farmer innovators like Gobeze and various other country platforms and the farmers within their networks, to build connectivity. This connectivity facilitates knowledge production and exchange around specific technologies, the process of innovation and joint experimentation, strategies for building support networks, as well as strategies for realizing and sharing benefits from innovations.

To facilitate this shared learning and to promote a practice of farmer-led joint experimentation, the PROLINNOVA Ethiopia team works closely with universities and government agencies to ensure they provide useful and accessible resources for farmer innovators. In an exchange with farmer innovator Mr. GebreYohannes Tewolde from the Mai Tsada area, we learned that he had constructed a small dam to irrigate his field. Mr. Tewolde was interested in solving the drainage problems he and many of his neighbours experienced in their basin. He explained how the BPA staff had shared information about the engineering resources available at Axum University and how he had begun attending workshops and lectures. Inspired by some of the hydraulic solutions he saw, he was excited to build one for himself and his community. Mr. Tewolde enhanced the usage of the dam by transporting fish from a nearby river, converting it into a fishpond for harvesting. Understanding how the exchange of knowledge between farmers and established educational institutions can significantly challenge the notion of *who* a researcher is inspires BPA to tactfully work to mitigate the educational and cultural divide between university-based research and farmers' research. Ultimately, the increase of shared learning spaces and dialogue can generate more potential for research that caters to local needs and increases farmer-led innovation.

The local/farmer innovation-based lens that PROLINNOVA focuses on aims to transform scientific research and development methods so they reflect and support the perspectives and contributions of local farmers. It calls for very active engagement of communities - at best, farmers become empowered versions of themselves, and together form collectives which enable them to seek their goals. When farmers and other community members are able to protect their interests and ideas, it begins to shape a more equal relationship to experts, researchers, and government representatives.