Feed the Future Country Fact Sheet

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Coffee and Bananas Get a Boost from Biotechnology in Uganda

The battle against food insecurity in rural areas isn't only fought in the fields. In Uganda, scientists are developing groundbreaking tools in the laboratory to boost crop yields and combat hunger. With funding and technical support from the U.S. African Development Foundation (USADF) under Feed the Future, an agro-biotechnology laboratory in Kampala is successfully introducing improved plant varieties to rural farmers in order to guarantee food security for more Ugandan households.

In the early 2000s, Uganda saw a dramatic reduction in its crop yields nationwide, mostly due to a devastating host of pests and diseases. A full half of Uganda's Robusta coffee trees were killed by coffee wilt disease, debilitating the country's coffee exports, and low banana yields forced smallholder farmers (who grow more than 90 percent of bananas in Uganda) to choose between feeding their families or selling their produce for income.

Agro-Genetic Technologies Limited (AGT) is a small private company on the forefront of forging innovative solutions to these challenges. AGT focuses on creating more resilient staple crops in Uganda so that farmers who grow crops like coffee and bananas can thrive. The company uses tissue culture, a technology that enables scientists to grow living cells in a laboratory, to produce pest- and disease-resistant plants.

Tissue culture has many important applications for both plants and animals, and has been essential to everything from cancer research to the development of life-saving vaccines. At AGT, tissue culture helps lab technicians grow "super plants" that replace low-yield crops with faster-growing produce that can withstand common pests and diseases. The company then delivers this transformative technology at an affordable price to thousands of smallholder farmers in Ugandan communities served by Feed the Future.

In 2007, AGT was already working with 8,000 smallholders in Uganda, training them on land preparation and farm management while producing improved banana and coffee plants in the lab. But the company wanted to increase its impact, so it applied for and received a capacity building grant from USADF to improve its office management, market assessment tools, and business plan. AGT used the funds to increase its farmer client base by 50 percent and expanded its reach to include pineapple, potato, stevia, mushroom, and flower crops. The company has been so successful that USADF awarded it an additional $215,000 expansion grant to double the size of AGT's laboratory and purchase necessary equipment and supplies.

These catalytic investments in AGT have made it a leading biotechnology lab in East Africa, building the capacity of Uganda and the broader region to sustainably improve food security over the long term through cutting-edge agricultural technology.