



Grace Njeri Muinga
2015 AWARD Fellow

Position	Program Officer, Agribusiness
Institution	African Agricultural Technology Foundation (AATF)
Country	Kenya
MSc	Agricultural Economics, University of Reading, 2012
Mentor	Dr. Mercy Kamau, Senior Research Fellow and Director, Measurement, Learning and Evaluation Unit, Tegemeo Institute of Agricultural Policy and Development, Egerton University
Research Area	Promoting farming as a business among smallholder farmers in Sub-Saharan Africa.

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Grace Njeri Muinga grew up in Mombasa, Kenya, the last born of four children. She studied agriculture because she admired her mother—a livestock scientist—who did a lot of traveling with her job. “I wanted to travel and I thought that a career in agriculture would help me do that,” she says with a smile.

Muinga studied Agriculture Economics at Egerton University, after which she worked for a year with an environmental NGO before registering for an MSc in the same course at the University of Reading in the U.K. She chose to study abroad without a scholarship because the completion time for the degree was much shorter than in Kenyan universities at the time. She was therefore willing to put in the extra effort to source for funds through working odd jobs instead of “spending a lifetime doing an MSc,” she states.

Her master’s research was on the impact of market access on food security in rural Ethiopia, using data already available at IFPRI. “Time constraints meant that I was not able to collect my own data,” she explains. From her research, she found that distance to market is a major factor affecting food security and if infrastructure could be improved and market systems were reliable in meeting the demands of the consumers, then food security would be greatly increased in Ethiopia and other African countries. “I was sleeping about three hours a night because I was working to pay my fees and studying,” says Muinga. “It was all worth it in the end because I passed with distinction.”

After she returned home, Muinga served as an intern for two months at ICRAF and later hired as a research assistant in the Decision Analysis Unit. With her determination and eagerness to learn, she was promoted to a research associate in the same unit. Muinga felt the urge

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AWARD is a career-development program that equips top women agricultural scientists across sub-Saharan Africa to accelerate agricultural gains by strengthening their research and leadership skills through tailored fellowships. AWARD is a catalyst for innovations with high potential to contribute to the prosperity and well-being of African smallholder farmers, most of whom are women.

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to work directly with farmers and promote farming as a business. She now works at the African Agricultural Foundation (AATF) and continues to make her goal a reality. Her current research involves reducing the drudgery in cassava production and increasing productivity in the countries where cassava is a food staple. The project is based in Nigeria, Uganda, and Zambia, and AATF plans to expand it to other countries.

The project begins with demonstration farms in the farmers' fields where the whole process—from ploughing to harvest—is mechanized. In the first year, mechanization services are provided free of charge to the farmers. After farmers experience the benefits of mechanization, machines are then leased to them at a fee and the revenue channeled back to the project for out-scaling. “One major criteria for farmer selection is the land size. The minimum farm size for mechanization to be beneficial is 1 hectare although the larger the farm size the higher the profit-economies of scale,” she says. “Farmers in Nigeria are already paying for the services because they have seen the benefits of using the machines, which include improved productivity,” adds Muinga. “The farmers are currently producing 28 to 33 metric tons per hectare using the machines, up from an estimated 7 to 10 metric tons per hectare using manual labor.” Before the project, the farmers did not take cassava seriously because of the labor involved in growing it. In Zambia, farmers are harvesting 24 metric tons per hectare using the new technology; the project is still in the demonstration stage in Uganda.

Muinga's job also involves project support, conducting feasibility studies, baselines, and business plans for AATF projects.

As an AWARD Fellow, Muinga expects to gain confidence. Her career goal is to establish a model farm where youth can be inspired to take up farming as a business rather than as subsistence. She also expects to improve her networks through AWARD so she can link with and learn from people using model farms for training.

“I want to improve food security in Kenya and in Africa by linking farmers with appropriate technologies,” Muinga says. “If I can do this through a model farm, I will have achieved self-satisfaction.”