AWARD
African Women in Agricultural Research and Development

Profile

2018 AWARD Fellow
Julie Mmbone Ojango

Position	Scientist, Animal Genetics and Breeding
Institution	International Livestock Research Institute (ILRI)
Country	Kenya
PhD	Genetics and Breeding, Wye College, University of London, 2000
Mentor	Stella Otieno, Senior Budget & Finance Assistant, UN-Habitat
Research Area	Genetic improvement and sustainable use of animal genetic resources in production systems found in middle- and low-income countries.

Ojango is involved in developing and testing livestock performance recording and feedback systems, developing breeding strategies in both extensive and smallholder systems, and supporting institutional arrangements to deliver the desired outputs for the respective livestock sectors.

Julie Mmbone Ojango grew up on farm in Kenya's Rift Valley in a family of four girls and one boy. Her father, an education specialist and farmer, believed in all of his children, but especially encouraged his daughters. "My dad said girls can do anything," she smiles. "He told us the wealth he would leave us would be in the education that we acquired." All of her siblings are university graduates and are working in various professions.

Growing up on a farm instilled in her a love for animals. "My dad would bring in beautiful Holsteins but they would die," she recalls sadly. "I resolved that one day I would get an answer as to why animals were dying—that's what propelled me to study animal science."

Upon completion of a BSc in Agriculture at the University of Nairobi, Ojango was offered a scholarship for a master's program, funded by NORAD. "Because I loved statistics, I found it easy to go on," she says. "I was one of the first women to study animal genetics and breeding at the University of Nairobi."

Ojango began working part-time as a high school teacher after completing her MSc, then as a lecturer at Egerton University. She was offered a Commonwealth scholarship in the U.K. "It was very competitive—there were four deans supporting four people: two men and two women, all vying for one scholarship. In the end, I got the scholarship through the toss of a coin!"

Her time in the U.K. was difficult, as she had to juggle her schooling with her home life. Her husband and two sons, then aged three and one, stayed behind for the first six months. Her PhD supervisor

understood her predicament, and took her under his wing, proposing a "sandwich" program for her. "A sandwich degree is a course in which a student undertakes a placement year, or internship in industry," she explains. "I really appreciated my supervisor's support. This was 1998, and my third son is named after my supervisor," she remarks warmly.

The focus of her research at ILRI is on targeted interventions that enable livestock keepers to profit from raising animals. "Countries need to improve on the efficiency of their production systems by adopting appropriate technologies," she asserts. "Technological products for livestock improvement need to be adapted to the environments in which the farmers operate."

"I have learned to identify roadblocks and bottlenecks and to realize that I shouldn't be afraid to break my plan down into smaller steps. My goal is to raise a new generation of people who will work in what I do."

Ojango is well versed in dairy cattle and small ruminant production systems in developing countries. She also has a good understanding of gender sensitivities in issues related to livestock production. She is also trying to find to find solutions to the issue of unhealthy, stunted animals. "Smallholder farmers in some areas rear sheep that take four years to reach 18 kilograms!" she recalls. "This affects the livelihoods of these farmers—the animals that grow fastest go to market fastest—resulting in 'negative selection." In a community in the lakeside region, she has taught the women to selectively mate their female sheep with the Red Maasai breed that has shown resistance to intestinal worms, and is resilient under challenging climatic conditions.

Ojango was given another challenge through the U.S. Feed the Future program. "We studied livestock populations in extensive pastoral systems, working with community groups, government extension people, and with non-government organizations," she says. "In this program we trained 'core innovation groups' comprising 30 households in each of five counties in the arid lands of Kenya. Those trained would then pass on the new knowledge to others in their area." She also provided leadership in establishing a sheep-breeding program for a pastoral community that had lost their cattle due to recurrent droughts. "I analyze data generated from the pastoralists, identify the key challenges and possible intervention points," she says. "Where we go wrong in breeding is by killing diversity—trying to make everything the same."

Ojango is currently a key player in a dairy cattle improvement project that is using mobile phones to collect data from smallholder farmers. "The long-term vision is to develop a tropical dairy cow that will thrive on the various types of smallholder farms," she says. "Enumerators collect data on animals from farms, and the farmers receive information to guide their management decisions through their mobile phones." She also links the farmers with trainers to support disease management and proper feeding of animals. "If you're going to invest in dairying, you might as well feed the cows properly."

Ojango has already benefited from her first interactions as an AWARD Fellow. "I have learned to identify roadblocks and bottlenecks and to realize that I shouldn't be afraid to break my plan down into smaller steps. My goal is to raise a new generation of people who will work in

Ojango is one of a growing number of women agricultural scientists who have won an AWARD Fellowship. AWARD works toward inclusive, agriculture-driven prosperity for the African continent by strengthening the production and dissemination of more gender-responsive agricultural research and innovation. We invest in scientists, research institutions, and agribusinesses to deliver sustainable, gender-responsive agricultural research and innovation.

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advances and innovations in the agricultural sector.

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what I do," she says. "I am tired of Africa begging for help every time we have a drought. I want our communities to say 'We don't need your help'—I want them to be self-sufficient in producing their food." She is grateful for the opportunity to balance her two passions: teaching and research. "When I'm training people to do things and it's making a difference, that is satisfying," she concludes.