



2013 AWARD Fellow
Wang'onde Virginia Wangechi

Position	Lecturer
Institution	University of Nairobi
Country	Kenya
PhD	Marine Botany, University of Nairobi, 2010
Mentor	Dr. Patricia Kristjanson, Research Leader in Climate Change Agriculture and Food Security, Challenge Program on Climate Change, World Agroforestry Centre

Research area: Analysis of competitiveness, value chains, effects of trade policies, and gender dimensions of horticultural crops among smallholder farmers, particularly women.

Virginia Wangechi Wang'onde hails from Nyeri, a town at the foot of Mount Kenya. It is an area of rich agricultural land, far removed—both physically and culturally—from the marine systems and mangrove forests that make up the focus of her research today.

“I liked biology, chemistry, and physics in secondary school and excelled in those subjects,” says Wang'onde. She opted to pursue a BSc in Botany and Zoology at the University of Nairobi, where she was introduced to courses in Microbiology and Hydrobiology. “We learned about mangrove ecosystems, but we didn't have the opportunity to do field work on Kenya's Indian Ocean coast, so we just had to imagine what they looked like,” she recalls.

During the first year of her undergraduate studies, Wang'onde found a strong motivator in an unexpected place—her dissecting kit. Learning that researchers, and not just those who earned medical degrees, could earn to title of “doctor,” she inscribed “Dr. Virginia” on her kit.

Today, Dr. Wang'onde holds a PhD in marine biology. She finally saw the Indian Ocean and real mangrove trees during the course of her doctoral research. Her current study is an extension of that work and is focused on investigating how open human access to mangrove forests is affecting their health, productivity, and biodiversity.

Mangroves offer a host of ecosystem benefits. They regulate floods, prevent coastal erosion, and filter land runoff to help protect the ocean from pollution. They provide refuge to fish and other organisms and serve as storehouses for carbon (carbon sinks) to prevent its release into the atmosphere as the greenhouse gas CO₂. Local communities depend on mangroves for their livelihoods and food (fish, crabs, prawns, and shrimps), firewood, and timber for construction and boat building.

“Sadly, mangroves are being destroyed at a terribly rapid rate,” says Wang'onde. “Unlike marine parks and natural reserves for fish and coral reefs, the mangrove forests are not yet protected from human access.

With declines of 30 to 50 percent being reported in Kenya, we could see them wiped out entirely in the next 100 years.”

The people who live adjacent to the mangrove forests and depend largely on small-scale fishing are complaining that fish stocks are decreasing. This is having a serious impact on their main source of food and income, resulting in a rise in poverty and drop in school attendance, as parents are unable to pay for their children’s school fees. The effects are particularly dire for girls, who are already less likely than boys to access education. As a result, communities are reporting alarming rates of early pregnancy and prostitution. Wang’onde has also observed that the women in the communities where she does her research keep a very low profile, and are restricted culturally from fishing or participating in income-generating activities related to tourism, and very few participate in meetings on conservation awareness.

Wang’onde expects the AWARD Fellowship to help her increase her professional visibility and confidence. She says that she has felt the lack of mentoring throughout her education and career.

“My love of science, rather than an individual person, served as my guide,” she reflects. Now, AWARD is offering her leadership skills, networking, and new ideas at a time when she is ready to disseminate her research results, publish in high-impact journals, and encourage policy makers to create positive changes. Wang’onde sees the fellowship as very timely not only for accelerating her own goals, but also for passing on her newfound skills to her students and future generations of young scientists.

Wang’onde is one of a growing number of African women agricultural scientists who have won an AWARD Fellowship. 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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