AWARD
African Women in Agricultural Research and Development

Profile

Adey Feleke Desta
2015 AWARD Fellow

Position	Assistant Professor
Institution	Addis Ababa University
Country	Ethiopia
PhD	Applied Microbiology, Addis Ababa University, 2014
Mentor	Yalemtsehay Mekonnen, Professor, Biology, Addis Ababa University
Research Area	Prevention of irrigation water pollution using biological treatment of industrial effluents in the Awash River Delta.

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Adey Feleke Desta grew up in Addis Ababa in close proximity to her extended family. She had no contact with rural areas as a child, but says her heart was drawn to the countryside. Her experience of rural life came from watching television and reading books meant for district health centers because her aunt worked for the ministry of health.

Desta's first physical exposure to the countryside was during fieldwork conducted for her MSc. "I really enjoyed the experience and started to appreciate the challenges faced by people who live in rural areas," she says. "This birthed my determination to improve the livelihoods of people in rural communities."

The leather industry in Ethiopia has long been traditionally active, but most tanneries discharge waste directly into nearby water, resulting in surface and potential groundwater pollution. "Biological wastewater treatment is one option to alleviate this problem," notes Desta. For her PhD, she studied useful microbial communities that can treat water coming out of tanneries. She found that using microorganisms to treat polluted water is cost-effective and sustainable. "It costs nothing beyond the initial establishment costs, and does not involve chemicals," she explains. "But microbes need to be managed efficiently to ensure safety."

As an assistant professor at Addis Ababa University, Desta is responsible for teaching graduate and undergraduate students and forming linkages with other institutions to explore opportunities for collaborative research. She continues to work on issues related to water pollution, specifically monitoring how polluted water goes into farms through irrigation. "Irrigated farming is primarily done by women, and they work barefoot, which raises the concern that they

might absorb some of the pollutants," she explains. She is therefore determining the effect of pollutants on women in particular.

Desta plans to work with communities to assess the health status of farmers with regard to the effects of the polluted irrigation waters. "I hope to get funding for this aspect of my work to bring me in closer contact with farmers," she remarks.

Networking is new to Desta. She expects the AWARD Fellowship to help her develop networking skills so she can effectively communicate with donors and other institutions for research collaboration. She looks forward to becoming more visible professionally, envisioning that this will help her attract funding for projects in which she will involve graduate students. This, in turn, will help her achieve her long-range goal of heading a research group in environmental biotechnology at Addis Ababa University with its own laboratory, and incorporating graduate students.

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Desta plans to use the interpersonal skills gained from the AWARD courses to manage conflict at work and to contribute to providing leadership. "I am not currently on any committees and I don't represent the university in any context, but I'm now ready to do that," she asserts.

Ultimately, she hopes that the results of her work will have a positive impact on smallholders. "The government is working on food security without considering food safety and the health of smallholders," she states. "I want to change this to improve the livelihood of smallholders in Ethiopia, especially women."

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.

AWARD is generously supported by the Bill & Melinda Gates Foundation, the United States Agency for International Development and the Alliance for a Green Revolution in Africa. For more information, visit www.awardfellowships.org