

Building a robust pipeline of scientists leading climate change research in Africa

Candidate Profile



Position

Researcher

Institution

Ethiopian Institute of Agricultural Research

Country

Ethiopia

Education

MSc, Seed Science and technology, Haramaya University

Mentor

Addis Tadesse Tekle, Associate Researcher, Ethiopian Biodiversity Institute

Research Area

Food security and ecosystem health

Melkam Anteneh Alemu

2019 One Planet Laureate Candidate

A researcher with the Ethiopian Institute of Agricultural Research's breeding program, Melkam Anteneh Alemu is focusing on crops and food security and the impact on smallholder farmers. She is interested in the close relationships between supplying and scaling up good quality seed and food security.

Alemu, who says that she is living her best life because she is doing the things she likes, would not be doing anything else for her career other than science. "I always wanted to be a scientist," she says, "you see, I had high expectations for myself from a very young age, and this was mostly because of the encouragement from my parents to do well in school to evade poverty."

But the choice of agriculture as a career did not come until she went to college. Alemu's parents were smallholder farmers before they moved to the city to run a business. She remembers how as a young child she saw her mother keep the family adequately fed with nutritious food produced from her small kitchen garden.

When the time to decide what to study in college came, this is the memory that directed her to agriculture, her mother's choice for her, instead of medicine, which is the field her father favored.

There is personal satisfaction and joy for Alemu in seeing a proposal she makes translating into a component of a research program, for example in the case of fenugreek, which she introduced for breeding and whose data are now being analyzed, or when her research generates a publication with her name on it.

But what is really is exciting is seeing the impact of her work on farmers' fields and incomes. From her firsthand interaction with smallholder farmers, Alemu is aware of the food security threat associated with the poor quality of the seed that most of them use and their low yields.

Compounding the problem is the miniaturization of land parcels associated with population pressure. She is dedicated to solving these problems, and she says,

"My work excites me because I know that through what I do I can be part of the solution to farmers' challenges and the food security problem. By breeding seed of good quality in terms of disease resistance, short crop production time, crop storability etc., I am helping farmers to improve their crop yields, use less land, reduce their financial burden through using fewer inputs, and lessen their seed cleaning burden. This is why I get extremely happy when the final product of my work is accepted and used by farmers. Impact is what makes me happy."

Besides developing technological tools, Alemu aims to contribute to policymaking on food security and ecosystem sustainability in the context of climate change in her country.

That will involve working with political actors to make sure that evidence-based policies are formulated and implemented at the national level and that there is engagement with farmers and in scaling up of technologies.

Alemu's career goal is to be a world-caliber seed scientist. She expects to be among the leading scientists in the seed technology development continuum working to alleviate the problems in smallholder farming.

She knows that this will require pursuing a PhD, an enormous commitment for her, a married woman with plans to expand her family and a mother of a three-year old daughter.

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But she is lucky; she is assured of the support of her husband, an agricultural scientist himself, and of the One Planet Fellowship, through which she will have access to the necessary resources, networking opportunities, and exposure to the latest developments in her area of research.

She can already see the changes she will propose for her institution to make from what she has learned from the One Planet Fellowship on gender and mentoring.

Melkam Anteneh Alemu is one of the growing number of candidates selected to participate in the One Planet Fellowship. The One Planet Fellowship is a career development initiative that is building a robust pipeline of highly connected, inter-generational scientists equipped to use a gender lens to help Africa's smallholder farmers cope with climate change. The One Planet Fellowship is funded by the Bill &Melinda Gates Foundation, the BNP Paribas Foundation, the European Union and Canada's International Development Research Centre (IDRC). African Women in Agricultural Research and Development (AWARD) and Agropolis Fondation are jointly implementing the Fellowship.