OnePlanet FELLOWSHIP

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

Candidate Profile

Alimata Arzouma Bandaogo

2019 One Planet Laureate Candidate

Position

Researcher (Agri-pedologist)

Institution

Institute for the Environment and Agricultural Research (INERA - Institut de l'Environnement et de Recherches Agricoles) Bobo-Dioulasso

Country

Burkina Faso

Education

PhD, Soil Science

Mentor

Dr. Paulette Taita, Head of Research, Programme Co-ordinator, Department of the Environment and Forests

Research Area

Integrated Management of Soil Fertility and Production Systems

Alimata Arzouma Bandaogo, 38 years old, is an Agri-Pedologist Researcher at the Institute for the Environment and Agricultural Research (INERA) in Bobo-Dioulasso.

Born in Ouagadougou in Burkina Faso, Bandaogo graduated at the age of 20 with the highest Baccalaureate grade in natural sciences from her school in the 2002 session. One year earlier, Bandaogo, during her scholarly and professional guidance activities at high school, discovered the Life and Earth Sciences pathway.

Already brilliant at natural sciences since secondary school, she decided to choose this pathway after obtaining her Baccalaureate, convinced she had made the right choice.

In 2005, she obtained her General University Study Diploma (DEUG - Diplôme d'Etude Universitaire Générale) at the University of Professor Joseph Ki-ZERBO in Ouagadougou where she pursued her dream of becoming an Agronomist Engineer in Bobo-Dioulasso, located 365km from Ouagadougou.

After three academic years at the Institute for Rural Development (IDR - Institut de Développement Rural) and research on crop systems and integrated soil fertility management, Bandaogo sailed through her agronomy engineering degree in 2008. In the same year she passed the public service entrance exam, but decided against working as an engineer at the Ministry of Agriculture and instead opted for a career as a researcher. Also in 2008, she was offered the opportunity to continue her studies through a national scholarship for her 3rd year, her studies being crowned by a Diploma of Advanced Studies (DEA - Diplôme d'Etudes Approfondies) in Soil Science. Bandaogo subsequently completed a doctorate in the "Soil Health" programme financed by the Alliance for a Green Revolution in Africa (AGRA) between 2010 and 2014 at Kwame Nkrumah University of Science and Technology in Kumassi, Ghana. She further developed research on the rational fertilization of irrigated rice as part of her doctoral thesis in partnership with the International Fertilizer Development Center (IFDC) and INERA.

As an agro-soil researcher, Bandaogo works, among other things, to find strategies for improving soil production techniques.

She worked on the optimization of the use of nitrogen in irrigated rice farming with Deep Placement of Urea (DPU) supergranules technology through managing the different nitrogen loss mechanisms. She contributed to conducting the experiments at INERA and in the rural environment on Burkina Faso's three main irrigated plains and then trained producers on the use of DPU through field schools and guided tours. Thanks to this project, Deep Placement of Urea supergranules technology has taken off, and its rate of adoption has reached a meteoric rise on the rice plains of Burkina Faso, thus making it possible to increase the production yield of smallholders by 25%.

At the end of her studies, Bandaogo was recruited by INERA as an Agri-pedologist Researcher and works, among other things, on finding strategies to improve soil production techniques. She also conducts research in stations and in rural areas on the fertilization of improved varieties and their introduction in rural areas (mainly on maize and rain-fed rice), participates in the training of producers and supervises the Institute's trainees.

For her, "One Planet Fellowship" represents a great opportunity for capacity building and a springboard for partnership and sharing. She plans to be Research Director in her Institution and also has the ambition to create an NGO which will work on the introduction of new technologies (improved varieties, reasoned fertilization) in order to increase the resilience of small producers in the face of climatic variations.

Bandaogo highlights the key role played by women both in food safety and in the management of land affected by climate change.

She recalls FAO statistics: nearly 8 out of 10 farmers producing staple foods in Africa are women. Paradoxically, they are less likely than men to use modern inputs such as improved seeds, fertilizers and other technologies to ensure better agricultural production. Their ability to adapt their agricultural practices to cope with the effects of climate change is strongly influenced by the technological interventions and training they can access. Targeted interventions are needed to ensure that women, who produce most of the staple food in Africa, can continue to feed the continent in spite of a changing climate.

From her position as researcher (agri-pedologist) at the Institute for the Environment and Agricultural Research (INERA) in Burkina Faso, this wife and mother of a little girl recognizes on a personal level the need to find the perfect balance between work and family life.

Alimata Arzouma Bandaogo 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.