OnePlanet FELLOWSHIP

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

Candidate Profile

Zohoun Inès Mègnissè

2021One Planet Laureate Candidate

Position

Doctoral assistant

Institution

Laboratory of Hydraulics and Environmental Modelling, University of Parakou (UP), Benin

Country

Benin

Education

Master II, Development and Management of Natural Resources, University of Parakou (UP), Benin

Mentor

Prof. Christine A.I.N. Ouinsavi, Laboratory Director and Program Coordinator, Natural Resources Management, Parakou (UP), Benin

Research Area

Soil and water resources management.

Zohoun Inès Mègnissè is a doctoral assistant at the hydraulics laboratory and environmental modeling at UP in Benin. She is currently enrolled in a PhD program where her work involves identifying innovative irrigation systems to optimize water use for vegetable crops amid climate change.

Her research focuses on natural resource management, particularly water management for agriculture.

She is researching systems that positively impact the income of small-scale producers in rural areas, including a diagnostic study and inventory of water management knowledge and practices in irrigated market gardening systems in southern Benin.

Born in Cotonou, the economic capital and largest city in Benin, Zohoun also attended primary school there. Unfortunately, she spent most of her childhood away from her parents because of her father's health.

The youngest of eight children, including one boy, she was sent to continue her schooling with her older sisters in Parakou, a large town in central Benin.

She obtained her scientific baccalaureate in biology and geology with good overall marks in 2013.

For the higher academic cycle, Zohoun had two options: accounting or environment.

On her way to pick up her baccalaureate file, she saw a poster for the national protected areas competition by chance.

This was how she discovered this sector, of which she had previously been unaware.

Fascinated by wildlife documentaries from an early age and aware of her aptitude for science, she decided to take the entrance exam to the National School for the Development and Management of Protected Areas. She was successfully admitted with a scholarship from the Beninese government. She joined the University Centre of Kandi for the first academic cycle. In 2017, she obtained her bachelor's degree with perfect overall marks and congratulations from the examiners.

She submitted a proposal for funding the study: "Analysis of the effectiveness of the use of short-cycle maize varieties in drought adaptation in North Benin" funded by the West African Agricultural Productivity Project (WAAPP) for enrollment in a master's research program at UP (2017-2019). She was fascinated by the research project she undertook as part of her master's.

She tested three drought-resistant maize varieties under two irrigation methods, namely supplementary and rain-fed. As a result of her work, she was able to identify a better performing variety and have soil samples analyzed at the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in Niger. Her master's research in natural resource management and planning was awarded two prizes at a conference (doctoral): second-best communicator and best female communicator in November 2019.

A scientist at heart, she explains: "I like to pose hypotheses and test them, and I try to have fun, to determine the probable causes of the observed phenomena."

Zohoun is working to identify innovative irrigation systems that optimize the water productivity of vegetable crops in a context of climate change, in order to increase the income of small-scale producers in rural Benin.

Problem solving, the discovery of new hypotheses to test, and further research questions to address positively influence her willingness to research. In the first year of her thesis, she is working on the project "Accompaniment of the Agroecological Transition through Agricultural Research" (TAERA) thanks to a grant from the Belgian Development Agency (Enabel).

Zohoun emphasizes that producers are at the heart of her work. Indeed, she is working with rural communities in producers' fields, particularly in the departments of Mono and Couffo in southwest Benin. Through focus groups, she is trying to understand why the irrigation systems do not work as planned with them.

She particularly likes the experimental and modeling aspects of her work: experimenting with agronomic elements to produce and make available products of sufficient quality and quantity and simulating from the scenarios the possibilities of field conditions to save time.

Moreover, participating in food and nutritional security and instilling this desire in young people is her greatest motivation. She discovered the One Planet Fellowship through a laboratory network.

In terms of career, Zohoun aspires to work in research institutes such as the National Institute for Agricultural Research in Benin (INRAB), and then internationally (Centre for International Cooperation in Agricultural Research for Development - CIRAD).

She aspires to become an expert on climate change to develop sustainable and viable solutions to help small-scale producers manage water stocks effectively, a critical issue in the context of climate change.

Her short-term objective is to identify the best water use efficiency systems for southern Benin vegetable crops and improve them.

In the long term, her vision is to improve the level of production of the most vulnerable rural communities in the face of climatic hazards. Zohoun is very satisfied with the first part of the training in terms of personal learning.

Its immediate effect was to motivate her—the training has already restored her confidence. The tools for stress management and public speaking will help her represent her laboratory with pride and dignity.

As for the mentoring program, it helps, among other things, to establish a follow-up of the roadmap of objectives, to plan future activities, to write a project.

She feels that she is already benefiting from this as she is working with some successful candidates outside the formal setting. This new network of African and international researchers will help her institution.

Through the mentoring sessions, Zohoun plans to change her approach to working with producers in the field. To better interact with them and obtain the required information, she intends to be more responsive and less directive.

She admits that she is always afraid of not doing things. She regularly wonders about the key to work-life balance and wants to master her stress levels in order to give her best. To overcome the many challenges, Zohoun admits to using a little trick. "Seeing the result and not the difficulties: I imagine myself in my gown on my graduation day," she confides with a smile.

In conclusion, she thanks all the people who have encouraged her. The One Planet program is excellent at this aspect, she adds.

Zohoun Inès Mègnissè 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.