

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

Candidate Profile



Position

Associate professor

Institution

Faculty of Agronomy at the University of Parakou (UP)

Country

Benin

Education

PhD, Ecology, Conservation and Forest Management, University of Abomey-Calavi (UAC), Benin

Mentor

Dr. Kindomihou Valentin, associate professor, UAC, Benin

Research Area

Ecology and forest management, agroforestry land management.

Eméline S.P. Assèdé

2021 One Planet Laureate Candidate

Eméline S.P. Assèdé is an associate professor of conservation ecology and forest management at the University of Parakou in Benin. With 15 years' field experience in understanding tropical forest ecosystems in sub-Saharan Africa, she has more than 30 scientific publications.

In 2021, Eméline was recognized as an extraordinary professor at the University of Pretoria (2021-2024). She is also a member of the African Academy of Sciences.

Moreover, she is a founding member of the Academy of Young Scientists of Benin, created based on her career and achievements in 2018.

In addition, she was elected Deputy Secretary-General of the Academy of Young Scientists of Benin and still is today.

Highly entrepreneurial, in 2019, she initiated and chairs the "Be the Best (BTB)" award of excellence (www.bethebest-online.org), which promotes young talent from Benin's universities.

In November 2015, she was recruited into higher education as an associate professor at the University of Art and Technical Sciences of Natitingou in Benin.

Since 2017, Eméline has been employed as an associate professor at the University of Parakou, Benin.

In 2004, she participated successfully in the prestigious training in tropical ecology and conservation of the TBA Association (Tropical Biology Association) in Kirindy, Madagascar.

Her research focuses on tropical forest ecosystems in sub-Saharan Africa.

Through her research, she has developed an optimal silvicultural technique for fuelwood harvesting that can improve the productivity and biodiversity of Sudan's open forests.

She has coordinated several research projects, including:

- Degraded habitat restoration and participatory conservation action plan for threatened orchid species in Pendjari Biosphere Reserve (northern Benin)
- Managing protected areas and community forests to ensure ecosystem services for sustainable development and poverty alleviation, Tanzania-Benin

Born in 1981 in Cotonou, Eméline is the youngest of seven children, five of whom are girls. Her father was a sales agent in a travel agency while her mother, also a salesperson, sold loincloth fabrics from Nigeria. Eméline completed her entire school education in Cotonou, Benin's economic capital, until the scientific baccalaureate, which she completed with a focus on natural sciences in 2001.

She felt destined for a scientific career from an early age because she had a keen sense of observation and was passionate about vegetation and wildlife. She is fond of documentaries on nature and environmental protection. Agronomy has also always interested her.

She is particularly sensitive to the beauty of nature. Eméline understood the considerable stakes of nature preservation and conservation very early on, both for us and for future generations.

Following the death of her parents, her life turned upside down. This was also, of course, a tough time for her brothers and sisters. Faced with this shock, Eméline set herself a challenge, and unlike her siblings, she decided to go as far as possible in academia and aim for her PhD.

Admitted to UAC in the faculty of agronomic sciences in Abomey-Calavi, a city in southern Benin, she obtained her degree in general agronomy in 2005, followed by a degree in agricultural engineering in 2006.

At the end of these courses, she was in the top five in her year group. She was able to take advantage of a German scholarship (BIOTAT-West Africa III) to do a second-year master's in the development and management of natural resources.

She defended her thesis in 2008. It was on the theme of evaluating the border effect in the Pendjari Biosphere Reserve (RBP) located in the extreme northwest of the country. This reserve is part of the largest set of protected areas in West Africa.

Every good scientist nowadays faces challenges related to climate change, she says. Nevertheless, she insists on the resilience of forest ecosystems, explaining that the effect of climate change is not only negative.

She benefited from two scholarships when doing her thesis: The scholarship (BIOTAT-West Africa III) and then another Belgian scholarship (University Cooperation for Development).

She defended her thesis in ecology and conservation of plant communities at UAC in 2014. In recognition of her excellence in science, she was promoted to assistant master at CAMES Universities in 2018.

As Eméline is not the type to stop halfway and is ambitious and determined, she has always aimed very high.

She has always been passionate about her work, and her research results have increased her enthusiasm tenfold.

Through her research on tropical forest ecosystems in sub-Saharan
Africa, Eméline has developed an optimal silvicultural technique for fuelwood harvesting that improves the productivity and biodiversity of Sudanese open forests.

She believes she has never had any reason to stop following such a fantastic route.

She, therefore, completed two years of postdoctoral studies in 2016-2018 under the vice-chancellor postdoctoral fellowship at the University of Pretoria in South Africa.

During this period, she participated in multiple conferences (in Belgium, West Africa, and East Africa, including Mozambique and Malawi.).

She has forged strong collaborations with several universities.

Back home, she rejoined the University of Parakou, and in 2019 was elected as the university's deputy head in the department of planning and management of natural resources, faculty of agronomy.

She deserves to be very proud of her career because, among other things, she is the only one in her family to have reached this level of education.

"Ecology, a better understanding of the nature that I love so much, the functioning of it as a whole is crucial," she notes.

"By managing forest ecosystems, perpetuating ecological processes, we risk losing natural resources," she insists.

For her, it is impossible to talk about science without mentioning the effects of climate change and the impacts on rural communities.

This is why all of Eméline's research work is developed in conjunction with rural communities.

Given that local producers have accumulated a lot of knowledge, this collaboration seems essential to her. She explains that she cannot do anything without consulting them.

In addition, related to the above, she has published an article on the perception of local populations of the conservation status of orchids.

These species, sheltered in fragile habitats (such as forest galleries), are threatened with extinction in Benin mainly due to the continuous degradation of their habitats.

Eméline is always on the lookout for calls for applications on the Internet. This is how she saw the announcement relating to the One Planet Fellowship.

In terms of career, this year, she will submit her candidacy to become a permanent lecturer-researcher. In the next five years, she aims to be a full professor.

From an administrative point of view, she intends to occupy a position of responsibility. She aspires to hold the position of dean of her faculty to contribute not only to its development but also to increase the institution's visibility.

Eméline says the leadership training was very positive for her, enabling her to achieve her goals. In addition, the training allowed her to take stock of her achievements, develop a career roadmap, and plan her medium- and long-term objectives.

Her various accomplishments and the achievement of her objectives (publication of articles and books, supervision of a minimum of eight master's and two or three doctoral students, plus participation in multiple conferences) will be huge assets for her.

She realizes that her mentor is a crucial part of her guidance. Coaching increases self-confidence and stimulates ambition. On a community level, she plans to develop practical, viable, conceptual forest ecosystem management systems to meet the needs of local people (to help manage their resources sustainably and use them well). Eméline is determined to use local solutions to address the impact of climate change on Africa's agricultural lands and help ensure farmers' resilience.

The biggest challenge in research in Africa is to finance projects. Being in direct contact with the communities, especially the problems they encounter daily, encourages her to write and submit projects. Ideas abound, but unfortunately, funding is lacking.

Eméline S.P. Assèdé 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.