



Position

Researcher

Institution

Université Félix Houphouët-Boigny (UFHB)

Country

Côte d'Ivoire

Education

Msc, Biodiversity and Sustainable Ecosystem Management, University Nangui Abrogoua (UNA), Côte d'Ivoire, 2015

Mentor

Dr. N'Golo Abdoulaye Kone, Associate Professor, Laboratory of Ecology and Sustainable Development, Training and Research Unit - Natural Sciences, UNA, Côte d'Ivoire, Research Station Director in the ecology of Comoé National Park, Côte d'Ivoire

Research Area

Agricultural entomology.

Aliko Yédé Jean

2021 One Planet Laureate Candidate

Aliko Yédé Jean is an agricultural entomologist focusing on the agroecological management of insect crop pests. More specifically, he aims to develop innovative, less pollutive agricultural practices for smallholder farms that will progressively limit insect damage to crops while reducing the use of synthetic agrochemical insecticides.

In practice, given that these insects rely on crops to live and are sensitive to climate (poikilothermic organisms), it is necessary to call on other disciplines, and also on the knowledge of farmers, to understand better the ecology (lifestyle) of these bio-aggressors, which would help in regulating agroecological management.

In addition, Aliko is working on the agroecological transition of African agriculture. He is a member of the project Promoting Agroecology through Research and Training in West Africa (PARFAO), co-sponsor of a project in Côte d'Ivoire called "Agroecological Farm School," and founder of the website www.agroecofamiliale.com.

Since 2017, he has been a researcher at the World Bank-funded African Centre of Excellence on Climate Change, Biodiversity, and Sustainable Agriculture (CEA-CCBAD) at UFHB in Côte d'Ivoire.

He is a PhD student in biodiversity and climate change specializing in agricultural entomology.

His research in Côte d'Ivoire on the agroecological management of *Apate terebrans* Pallas, 1772 (Coleoptera, Bostrichidae), a major insect pest attacking the cashew tree (*Anacardium occidentale* L.) in West Africa, is making it possible to considerably

limit the damage caused by this pest, notably through knowledge of the efficient periods for insecticide applications; sanitary prophylaxis in and around the plantations; the choice of resistant cultivars; and the choice of a judicious cashew tree density.

Originally from the southwest of Côte d'Ivoire, Divo, about 200 km from Abidjan, Aliko is the youngest of nine children, seven of whom are boys.

His parents, farmers, looked after their children as best they could, but they had to send some away from the family home. This is why Aliko's childhood was difficult.

Aliko completed his primary education in Divo. Still, as soon as he was eight years old in year 4, he left Divo to join his older brother, who was already a teacher in the west of Côte d'Ivoire, about 400 km from his hometown.

He still remembers the year his brother was his teacher. "He was tougher on me," he says, but he admits in retrospect that this strict discipline helped him.

When he passed the entrance exam for year 7, his older sister suggested going to the west of Côte d'Ivoire, to the town of Man, the region of 18 mountains, to attend middle school. Aliko thus found himself living in a rented house without electricity with his older sister at the age of 11.

After year 8, his sister took a break from her studies and left Man. When he was 13, alone for the first time, his parents advised him to find another teenager to live with, which he did. The following year, in year 10, he lived alone, this time at the age of 14.

The living conditions were extremely difficult for him, and he had to learn to fend for himself when studying, feeding, and protecting himself. "Very often that year, I would go to sleep hungry," he reveals sadly, painfully recalling his teenage memories.

The socio-political crisis in Côte d'Ivoire broke out in 2002 when he was in year 11. He wandered around for a whole day to escape the fighting, from 8 a.m. to 7 p.m. After several misadventures, he miraculously managed to find his family. Aliko returned to his hometown and continued his secondary education, obtaining his scientific baccalaureate in natural sciences in 2005.

Aliko has dreamed of being a scientist since high school. He was particularly good at mathematics and would help his classmates. This led to him being given the ironic nickname Doctor Innumerate, he recalls with a smile.

Given the context of his challenging education, Aliko and his family celebrated this first qualification. Although he had opted for science, Aliko was attracted to economics. "I couldn't see what to do because the baccalaureate was already the holy grail," he explains. If a choice were possible, he would have selected economics because he honestly thought he could make a better living in this field.

However, he was not in control of his direction at the university. His older brother, a lecturer, enrolled him in the first year of natural sciences at UNA in Abidjan, the economic capital of Côte d'Ivoire, without asking his opinion. After a two-year associate degree in natural sciences, he specialized in animal production during his Bachelor's degree. Indeed, he has a real passion for animals. This is highly likely the reason he chose insect crop pests. His wish is to provide solutions for farmers.

At the end of this academic cycle, he made a difficult decision and was the only person to leave his class to study biodiversity and sustainable ecosystem management.

This was a difficult choice, but two factors motivated this decision. On the one hand, he did not see many exciting opportunities for a thesis in the field. On the other hand, he was attracted by the issues of climate change and biodiversity.

He then began to search for a teacher in this field of research. This is how he contacted Professor Kolo Yéo, who agreed to supervise him for his master's degree at UNA.

Aliko is an agricultural entomologist whose research focuses on the agro-ecological management of crop pests. More specifically, he seeks to develop innovative agricultural practices that progressively limit insect damage to crops while reducing synthetic agrochemical insecticides.

For him, the most exciting research he has worked on is the agroecological management of insect crop pests. In the first year of his master's, his work focused on the entomofauna of cashew orchards.

In the second year of his master's, he also pursued biodiversity and sustainable ecosystem management because, at that time, he frequently heard about biodiversity and climate change. He started working specifically on the ecology of a major cashew tree insect pest, *Apate terebrans*. He was touched and impressed by the interest shown by the farmers.

This farmers' son inherited a love for agriculture in general, ironically because he knows well the difficulties farmers face in providing for themselves. This experience led him to the agricultural sciences in general and entomology in particular. He obtained his master's in biodiversity and sustainable ecosystem management in 2015.

After the second year of his master's, his supervisor Professor Kolo Yéo told him that he would not take a PhD student if there were no funded projects. Aliko searched the internet for another teacher whose research focused on cashew tree pests with no funded project. Fortunately, he happened upon a video of Professor Mauricette Ouali-N'goran, from the UFHB. He searched her scientific articles for her email address. On finding the email, he contacted her, and after several exchanges, she agreed to supervise him.

After the master's degree, Aliko did not succeed in any of the competitive examinations he sat. This was disappointing because he had lost another year. Since his career path has not been linear, pursuing a scientific career is a personal challenge. The other motivation and role model was his brother, the only one in the family with a doctorate at that time. Thanks to the support and encouragement of his family, he persevered, and the following year, showing great determination, he enrolled in a doctoral program.

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He dreamt of traveling while studying his thesis. He achieved this dream as he later benefited from a nine-month foreign mobility grant from the Agence Universitaire de la Francophonie (AUF) and the Institut de Recherche pour le Développement (IRD) (France, Ghana). He also got a grant from the Fondation Internationale pour la science (FIS) for fieldwork.

Aliko spent two weeks at African Rice, Saint-Louis (Senegal), in a workshop on varietal improvement, which brought together 14 nationalities from Africa, Asia, and Europe. This happened thanks to the full support of the IRD in 2019. From master's to doctorate level, Aliko will benefit from a national scholarship.

Aliko is currently working with farmers in two regions in the northeast of Côte d'Ivoire, neighboring Ghana and Burkina Faso (towns of Bouna and Bondoukou), trying to be as inclusive as possible.

After the doctorate and then the postdoctorate, he plans to return to the country to teach at the university. Ambitious and diligent, Aliko plans a national and then international career in teaching and research to capitalize on all of the skills he has acquired.

Aliko's ambition is to set up a multi-stakeholder project by establishing a platform whose mission will be to support small-scale farmers in their agroecological transition. His long-term vision is to enter national and international decision-making bodies in the hope of promoting sustainable agriculture on a large scale.

"There's an old saying that when our dreams don't scare us, they're not big enough." This is how Aliko translates his dreams. He intends to give himself the means to achieve them. With the AUF-IRD grant, he has had the pleasure of promoting agroecology in Côte d'Ivoire.

Aliko already had a scholarship directory on a website, but he received the One Planet call for applications from colleagues.

For him, this more international exchange attracts attention and considerably increases the visibility of his institution, but also provides a

place for interaction and exchange on agricultural policy management (at the decision-making level) and good sustainable policy practices.

The training is extensive. One Planet provides successful candidates with all the tools to achieve their goals.

In terms of personal development, he is moving toward his development goal thanks to the training provided in the program. Aliko admits that because of his relatively solitary childhood (alone since the age of 11), he has a problem with communication. Another after-effect of this period, which is now a disadvantage, is his listening capacity. This skill will also benefit from the training.

In addition, the training is allowing him to develop his career roadmap in a better way.

For him, AWARD is about applied research that will solve concrete problems.

Aliko sees this fellowship as a win-win partnership for his institution, as his students will benefit from his acquired skills.

"Our cohort and the previous ones form a network, which is a significant factor," he says.

The lessons in the training augur well for the positive interactions with his communities and the ones with which he already works. Today, thanks to this program of multidisciplinary researchers, he can recommend a student.

The major challenge he had to overcome was fulfilling his dream of traveling during his thesis. Strangely enough, he was the only one who dreamed of going out of the country for the thesis. Because of this, he received no help or encouragement from colleagues who did not understand this desire. To achieve this, while writing his thesis proposal, he rather ingeniously added several specific objectives, two of which depended on a mobility grant. And so, he overcame this challenge.

Aliko Yédé Jean 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.

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