

Agspirations



Inspiring stories of African agriculture

VOLUME 1



AgSpirations: Inspiring stories of African agriculture, Volume 1

Gender-responsive innovations enhancing agricultural research
and development

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Foreword

Increasing the productivity of smallholder farmers has the greatest potential to accelerate agricultural-driven development in Africa. Yet, persistent gender gaps across all sectors continue to cripple global efforts toward sustainable development and improved livelihoods. At the same time, communities dependent on agriculture for their livelihoods are at a disproportionately higher risk of the adverse effects of the global warming of 1.5°C recorded in 2018.¹

The world needs urgent and concerted efforts toward enabling agricultural-dependent communities to thrive in the face of a changing climate. The key to finding solutions is an enhanced focus on the systemic causes of the gender divide in various sectors, including science, technology, engineering, and mathematics (STEM).

The year 2019 marked the midpoint of the African Women in Agricultural Research and Development (AWARD) 2017-2022 strategy. This ambitious strategy seeks to contribute toward Africa's agriculture-driven prosperity by focusing on three pillars of agricultural research and development (ARD): individuals, institutions, and the enabling environment.

We are excited to highlight some of the outcomes of the first half of the strategy implementation and how we, together with our partners, are accelerating global efforts toward sustainable development goals, especially in the context of a changing climate.

Gender-responsive agricultural research is a significant opportunity for systemic

transformation that we continued to harness in 2019. We intensified our mission of equipping African researchers and institutions to deliver agricultural innovations that better respond to the needs and priorities of a diversity of women and men across Africa's agricultural value chains.

We forged partnerships with eight national agricultural research institutions in six African countries, which saw us customize and deploy various interventions to build their gender responsiveness. The interventions included customized institutional fellowship programs and mentoring programs and supporting partner institutions to develop their gender strategies and leadership programs.

We scaled our investments in strengthening the pipeline of women in leadership in ARD. Through the pan-African AWARD Fellowship targeting francophone Africa, we reached an additional 208 scientists from 13 sub-Saharan countries (nine francophone countries, four anglophone countries). This scaling has brought the total number of direct beneficiaries of the AWARD Fellowship to 1516 scientists from 40 countries over the past 12 years. These are scientists at different career levels, ranging from emerging scientists who participated as AWARD Fellows and fellow's mentees to senior scientists who participated as mentors.

Through the One Planet Fellowship, we fostered a robust global network of capable and influential researchers and research leaders able to deploy a gender lens to analyze their research's potential to bridge the gender gap

¹ IPCC, 2018: Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)].

in African agriculture and help smallholders adapt to a changing climate.

We are encouraged by the tremendous appetite for enhanced capacity in climate change research and leadership, as indicated by the overwhelming number of applications for the inaugural cohort of the One Planet Fellowship (more than 2,400 applicants for 90 available slots in 2019 and 2020).

While this is a harsh reminder of the reality of the imbalance between demand and supply of capacity development on the continent, it is also an opportunity for increased partnerships to build local talent to address climate change in Africa. We acknowledge and appreciate funding support from the European Union and Canada's International Development Research Centre (IDRC), who joined the Bill & Melinda Gates Foundation and the BNP Paribas Foundation in funding the One Planet Fellowship.

In exploring the nexus of gender and leadership in political governance and agriculture in Africa, our work (published in the 2019 annual trends and outlook report: *Gender equality in rural Africa: From commitments to outcomes*²) revealed that failure to tackle institutional deficiencies and promote accountable and robust leadership exacerbate the gender gaps recorded across Africa. We scaled up an intervention that addresses systemic causes of gender inequality in STEM and highlights the strategies and approaches that improve the numbers and experiences of women in STEM.

Moving forward, we are energized to build on the successful outcomes from the first half of our strategy implementation as, together with our partners, we work toward our vision of agriculture-driven prosperity for Africa.



Professor Lateef Oladimeji Sanni
Chairperson, AWARD Steering Committee



Dr. Wanjiru Kamau-Rutenberg
Director, AWARD

2 Mbo'o-Tchouawou, Michèle; Musembi, Leonard Mulei; Beyene, Hailemichael Taye; and Kamau-Rutenberg, Wanjiru, 2019. Gender and leadership in Africa: Exploring the nexus, trends, and opportunities. In 2019 annual trends and outlook report: Gender equality in rural Africa: From commitments to outcomes, eds. Quisumbing, Agnes R.; Meinzen-Dick, Ruth Suseela; and Njuki, Jemimah. Chapter 3, pp. 32-43. Washington, DC: International Food Policy Research Institute (IFPRI). https://doi.org/10.2499/9780896293649_03

A stylized graphic of a tree with a white trunk and branches, and orange leaves, set against an orange background. The trunk is a vertical line with a few small circles representing leaves. The branches are horizontal lines extending from the trunk, with small circles representing leaves. The background is a solid orange color.

Chapter 1

The One Planet Fellowship is a lifeline, not just to me, but to many more African researchers at the front lines working to improve African smallholder farmers' livelihoods. It is helping me gain confidence in my research and is developing my scientific and leadership skills.

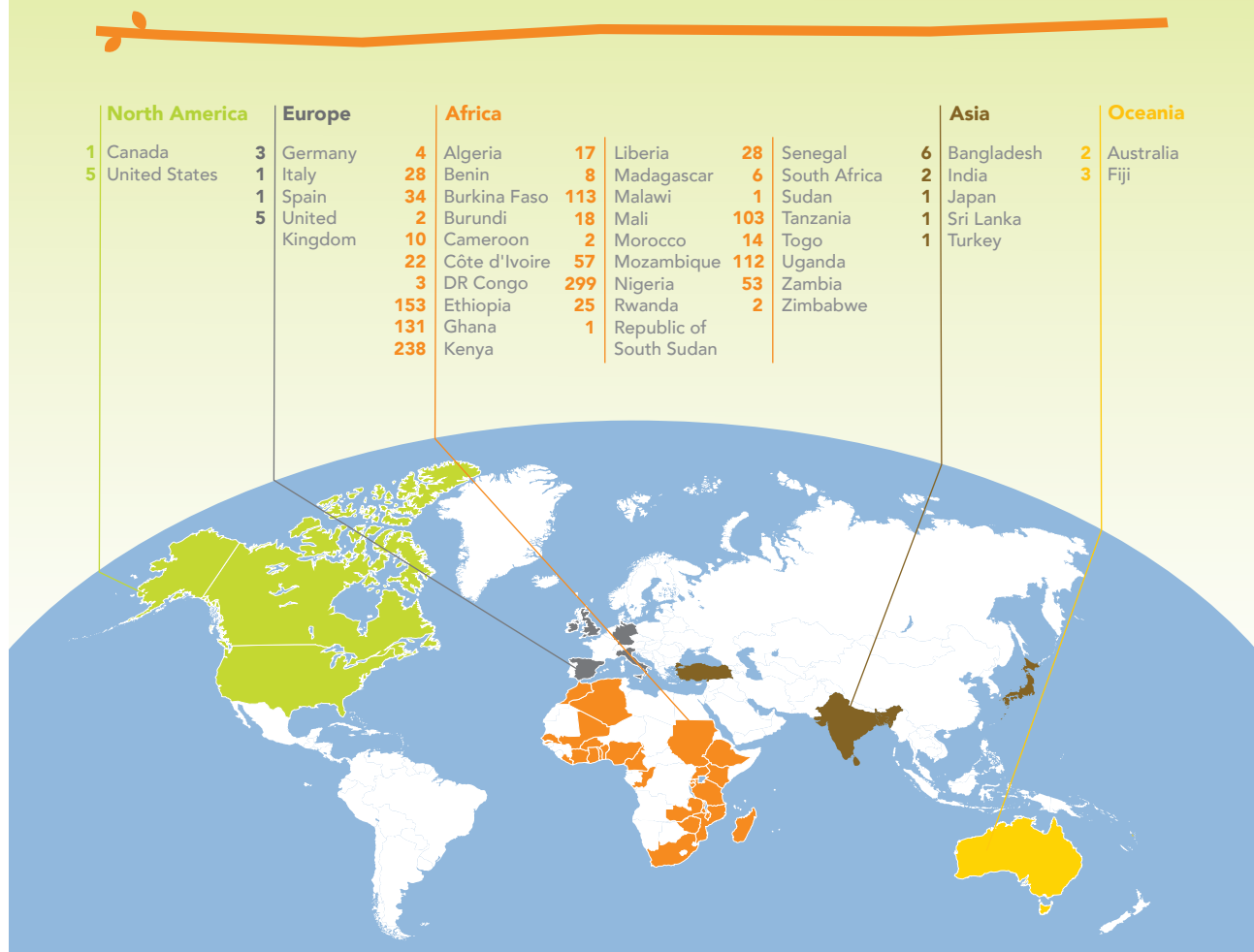
~ Mevoyon Pamela Karrel Afokpe,
2019 One Planet Laureate
candidate

**Investing in the next
generation of African
researchers through
fellowships**

Through our flagship AWARD Fellowship, outstanding high potential women agricultural research scientists, selected following a rigorous and competitive selection process, undertake a career-development program that builds their leadership, mentoring, and scientific research skills. This program secures the pipeline of capable, confident, and influential African women available to lead critical advances and innovations to meet the challenges of the continent's agricultural sector. The flagship AWARD Fellowship was established in 2008, with an inaugural cohort consisting of 59 AWARD Fellows and 59 mentors from 10 anglophone countries and one Lusophone Mozambique.



1516 Fellows, Laureate Candidates, Mentors and Fellows' Mentees from 40 countries 38 francophone institutions



Today, the flagship AWARD Fellowship continues to expand in scope and geographical coverage with the **Pan-African AWARD Fellowship**, opening up the benefits of the AWARD Fellowship to women agricultural scientists from francophone Africa. The AWARD Fellowship has strengthened the mentoring, scientific, and leadership skills of 534 of the continent's top women scientists who continue to record remarkable growth in their careers, with most taking up senior leadership positions, including as vice-chancellors, center directors and policymakers. The 534 women scientists constitute the community of AWARD Fellows and are among the 1,516 direct beneficiaries of the AWARD Fellowship to date.

Working in francophone Africa

The **Pan-African AWARD Fellowship** opens up the benefits of the flagship AWARD Fellowship to women agricultural scientists from francophone Africa. With nine francophone African countries³ included, it is a remarkable milestone for AWARD as it intensifies investment to widen the pipeline of African women scientists working to improve rural livelihoods across the continent.

According to a 2017 scoping study⁴ commissioned by AWARD, women represent less than 16 percent of the research labor force in agricultural sciences in francophone African countries.



While a PhD is generally considered fundamental to the conception, execution, and management of high-quality research, including stakeholder engagement and accessing research funding, the study also revealed that only a small number of women in francophone Africa are enrolled in advanced degree programs, with the overall share of PhD-qualified female researchers at only 21 percent.

The AWARD Fellowship scaling to francophone Africa has seen AWARD invest in developing and delivering learning programs in both French and English to ensure optimum participation and benefits by francophone scientists. AWARD has also increased its pool of trainers to include more linguistic and cultural expertise from francophone Africa.

This investment creates an opportunity for the fellows to expand their network, foster experiences and knowledge exchange with peers from different cultural and linguistic backgrounds and deepen intra- and inter-country engagements in ARD efforts across Africa.

³ Benin, Burkina Faso, Burundi, Cameroon, Côte d'Ivoire, Madagascar, Mali, Senegal, and Togo

⁴ <https://awardfellowships.org/award-publications/an-assessment-of-the-gender-gap-in-african-agricultural-research-capacities/5a8681ed50399doc928941171/>



Walking the talk: Gender-responsive action with Éveline Compaore

By **Éveline Marie Fulbert Windinmi Compaoré**

Scientific Researcher, Institut de l'Environnement et Recherches Agricoles (INERA), Burkina Faso
2018 AWARD Fellow

Dr. Éveline Compaoré, the daughter of farmers, was inspired to become a researcher after seeing the challenges that smallholder farming families face trying to make a decent income. Compaoré is studying rural sociology and the sociology of agricultural innovations to better understand and overcome the inequalities in access to innovations between men and women.

I grew up on my family's smallholder farm in a village in Burkina Faso. Life was hard for my parents. They did not earn much even though they worked very hard. From a very young age, I would go with my dad to farmer field days to learn from visiting experts about the latest innovations in agricultural sciences, such as new breeds or pest and disease control. Yet, my mum, who is also a farmer, never got the chance to come along to these learning events. I was inspired to become an agricultural scientist to find solutions to improve rural family living conditions, especially for smallholder producers like my parents.

As a scientist, I must find the balance between meeting the demands of my work and the social demands of being a good wife and mother who always puts her husband and children first. When you need to work late or have a proposal to submit to secure funding for your research, this is not always easy. On top of that, as a woman scientist, I feel that I need to stay strong and competitive with my male colleagues if I am to advance my career. I have also learned that my research needs to speak on behalf of rural communities.

The AWARD Fellowship has taught me that everything is possible if I keep moving forward. I have also gained self-confidence both at work

and in my research. I know I can make small changes that will bring significant results in farming communities.

AWARD has also given me chances to interact with other scientists and donors to expand my network. During my fellowship, I have become the head of my research unit, and I am trying to implement what I have learned about how important it is to support everyone on my team to be the best they can be. I am also part of the gender and diversity team working across four countries through the African Centre of Excellence. I am very much looking forward to undertaking future research to inform strategy and policy on gender and diversity issues in agricultural research.



The One Planet Fellowship: Investing in the next generation of African scientists supporting action on climate change

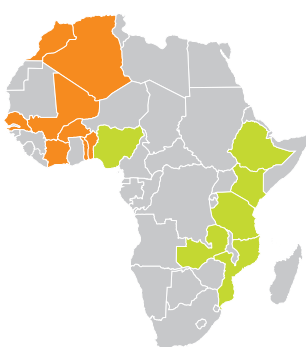
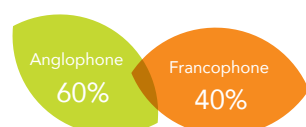
Sustainable Development Goal 13, climate action, specifically notes the need for effective climate change-related planning and management to include women, youth, local, and other marginalized communities. This need is echoed in the latest Intergovernmental Panel on Climate Change (IPCC)⁵ report and related Gender Action Plan of the United Nations Framework Convention on Climate Change (UNFCCC)⁶, which draws increasing attention to the higher risk of adverse consequences from climate change in local communities dependent on agricultural livelihoods.

The One Planet Fellowship represents AWARD's most significant expansion to date. The US\$19.2 million initiative, managed by AWARD and the Agropolis Fondation, will

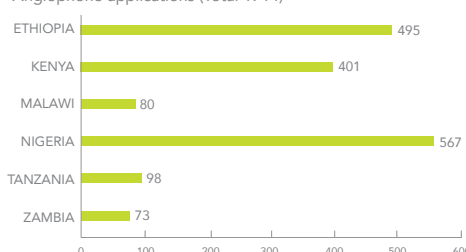
support up to 630 African and European agricultural scientists over the next four years. The aim is to create a vibrant, interdisciplinary, and intergenerational network of scientists able to inform inclusive rural development. Modeled on the ground-breaking flagship AWARD Fellowship tailored for African female scientists, the One Planet Fellowship goes several steps further. It is open to both men and women, as well as to young European scientists, forging intercontinental collaborations for climate change research.

AWARD's One Planet Fellowship aims at building a robust pipeline of scientists working on solutions to help Africa's smallholder farmers adapt to a changing climate. A coalition of the One Planet Summit⁷ that works toward accelerating the Paris Agreement on Climate Change, the One Planet Fellowship seeks to create a vibrant, interdisciplinary, and intergenerational network of scientists able to inform inclusive rural development.

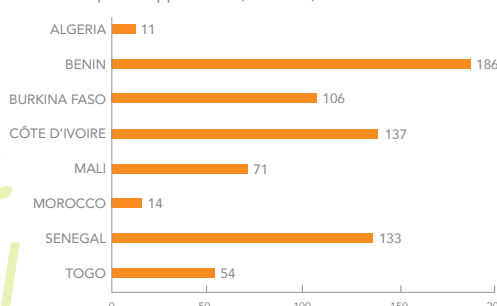
A total of **2,426** applications were received from 14 African countries



Anglophone applications (Total 1714)

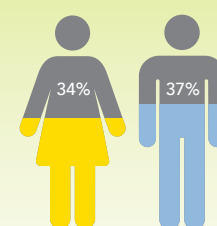


Francophone applications (Total 712)

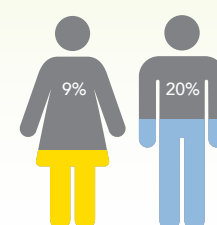


Applications by gender

Anglophone



Francophone



⁵ IPCC, 2018: Summary for Policymakers, op. cit.

⁶ <https://unfccc.int/topics/gender/workstreams/the-gender-action-plan>

⁷ <https://www.oneplanetsummit.fr/en>

Modeled on the ground-breaking AWARD Fellowship tailored for African female scientists, the One Planet Fellowship goes several steps further: it is open to both men and women, and young European scientists, forging intercontinental collaborations for climate change research.

The 2019 and 2020 cohorts of One Planet Fellowship participants include 89 laureate candidates and 89 mentors, selected from 14 sub-Saharan African countries (Algeria, Benin, Burkina Faso, Côte d'Ivoire, Ethiopia, Kenya, Malawi, Mali, Morocco, Nigeria, Senegal, Tanzania, Togo, and Zambia). These candidates were selected from a pool of 2,426 applicants who responded to two calls for applications.

Each of the successful applicants brings a research specialty vital to building future-proof agricultural systems, such as promoting the adoption of climate-smart technologies or improving African seed systems in the context of climate change.

Laureate candidates will also have a unique opportunity to mentor junior African and European scientists, giving them insights into the priority areas that agricultural science needs to address in Africa and exposure to

the unique context and conditions of research on the ground across the continent.

Also, the One Planet Fellowship places a premium on strengthening the gender-responsive research skills of the laureate candidates.

At the launch of the inaugural cohort of the One Planet Fellowship, AWARD Director Dr. Wanjiru Kamau-Rutenberg emphasized the central role of gender responsiveness in climate change research.

“To provide the most robust research to address climate change requires investing in early-career scientists and providing them with the capacity and skills they need to lead the research agendas of the coming decades. For their innovations to be relevant and widely adopted, the next generation of scientists will also need to know how to place gender and social inclusion at the heart of their research.”





A lifeline that supports sustainable development and addresses climate change

By Mevoyon Pamela Karrel Afokpe

Research Station Manager, East-West Seed, Benin

2019 One Planet Laureate Candidate

Pamela Afokpe works to ensure smallholders' access to the seeds needed to meet the changing climatic conditions. The 29-year-old Afokpe runs the research station of a seed company that has received recognition for its inclusive efforts to reach remote villages, breed local crops, and address the needs of women farmers. Afokpe, who has a master's degree in agronomy and plant improvement, oversees a varietal improvement program for traditional leafy vegetables and fruits for West Africa.

We in Africa are on the frontline of the changing climate, so creating tailored solutions for the smallholder communities is crucial. The One Planet Fellowship is a lifeline, not just to me but also to all the program's laureate candidates. The Fellowship helps me gain confidence in my research as I develop my scientific and leadership skills while building capacity at the front line where scientists are working to improve the livelihoods of African smallholder farmers.

One of the biggest obstacles we need to overcome for women scientists is colleagues' doubt that they can do the job. A lack of women colleagues compounds this doubt, and limited space and decision-making power to contribute effectively and reach your true potential. One of the critical aspects of this Fellowship is that it also includes male scientists. Climate science must involve everyone to find solutions in our research that address the specific constraints faced by vulnerable groups. We must take an inclusive approach.

For example, I am investigating how traditional crops can better contribute to climate change resilience. Although they are part of the

local food system and eaten daily in most African households, these crops are most often produced in marginalized systems, with their potential not fully explored. Supporting farmers with improved genetic materials and changing some traditional farming practices can help increase climate change resilience. One of the interesting findings is that men and women have different needs when it comes to seeds. Men often prioritize yield for traditional crops, whereas women often consider ease of harvest, cooking times, and taste. Women also play a significant role in the production, marketing, and conservation of traditional crops. This just shows how research must address the needs of both men and women.

Including men in the One Planet Fellowship will give them the training and tools they need to be better scientists and guide them to produce gender-responsive research. Having both male and female scientists working together will yield better and more efficient results in our fight against climate change, and will contribute to reaching our shared goals of supporting smallholder farmers, saving the world, and attaining broader development goals.





Appreciating the critical role of women in science to transform Africa

By Austin Phiri

Chief Agricultural Research Scientist, Ministry of Agriculture, Irrigation and Water Development, Malawi
2019 One Planet Laureate Candidate

Austin Phiri uses his extensive knowledge to promote the adoption of climate-smart technologies to help farmers in Malawi become more resilient to climate change. His work includes investigating and promoting legumes to improve soil fertility and intercropping maize with pigeon pea and groundnut to enhance nitrogen use efficiency. Phiri, who has a PhD in Soil and Water Management, has advanced into increasingly senior agricultural science roles throughout his career and is now keen to improve his skills in delivering gender-responsive research through the One Planet Fellowship.

Women in science have a critical role to play in advancing gender equality in Africa and the continent's development. In science, they bring unique perspectives, knowledge, and skills. Yet they often do not have a seat at the decision-making table and have few leadership prospects, remaining mostly subservient to the men who hold those positions. This situation, in turn, means they have limited opportunities to influence future research agendas. Participating in the One Planet Fellowship has helped me understand this and why it is critical to empower women scientists to find solutions to global challenges like climate change.

I have learned that gender-inclusive agricultural research policies would make science much more attractive to women and lead to greater recruitment and retention rates. It would remove barriers and create an enabling environment for innovation to flourish, benefiting society at large. Inclusive policies catalyze active participation by different groups on different levels that go a long way to ensuring that institutions can deliver on their mandates. Yet all



too often, their voices, and the voices of other marginalized groups, are overshadowed by those of men. For this to happen, all scientists, including men like me, must embrace inclusivity and not just in the workplace.

We must also build our capacity to carry out gender-responsive research. The One Planet Fellowship has taught me why this is important. Women and marginalized groups often carry an enormous burden on agricultural production, yet it is unrecognized, and research fails to meet their needs and challenges.

The mentoring and support I have received through the fellowship so far have been invaluable for my work.



Chapter 2

Strengthening African institutions' capacity to deliver more gender-responsive agricultural research.

~ Dr. Mandefro Nigussie,
State Minister, Ministry of
Agriculture, Ethiopia.

**Strengthening African
institutions' capacity
to deliver more
gender-responsive
agricultural research**

Gender responsiveness holds the transformative potential to enhance agricultural research for Africa's sustained and inclusive economic growth. Under its Gender Responsive Agricultural Research and Development (GRARD) initiative, AWARD aims to catalyze transformative changes in scientists and ARD institutions by enabling these different level actors to conduct and promote agricultural research and innovations that better respond to the needs and priorities of a diversity of women and men across agricultural value chains. AWARD works with institutions in various countries to strengthen their capacity to deliver gender-responsive research from design to implementation and dissemination; and to leverage the talents of diverse research teams, including increasing the number of women agricultural scientists in leadership positions.

Institutional Engagement in Ethiopia

Scaling out the flagship AWARD Fellowship to the Ethiopian Institute of Agricultural Research (EIAR)

Building individual women scientists' capacities to develop and lead innovative agricultural solutions is necessary but not sufficient to accelerate Africa's development. Successes in preparing women in agricultural research for leadership achieved through the AWARD Fellowship were a much-needed impetus to scale up the initiative to institutions.

With only a 10 percent share of female researchers⁸, Ethiopia has one of the lowest shares of women in research and management positions in sub-Saharan Africa.

Dr. Mandefro Nigussie, the former Director-General of EIAR and now the State Minister in Ethiopia's Ministry of Agriculture, described

how the limited capacity at EIAR to design and conduct gender-responsive research was adversely affecting the potential impact of its work. He cited research for developing a common bean variety that focused on improved yield but overlooked the bean's prolonged cooking time. This oversight meant that the women in the community had to spend more money on firewood. "Without realizing it, the technology we developed was more harmful to women than it was beneficial.

"The AWARD Fellowship will help us avoid these kinds of mistakes in the future," announced Dr. Nigussie, a male champion for gender equality.

In 2019, following a partnership agreement with EIAR, AWARD piloted its first institutional AWARD Fellowship. Building upon a 2018 audit of the status of gender considerations in EIAR's processes, AWARD designed and implemented the customized fellowship to support EIAR's response to some of the gender audit's findings. A total of 60 competitively selected researchers participated in the fellowship: half of them were early-career female recruits, and 19 EIAR senior scientists took on mentoring roles, four of whom were women.



⁸ <https://asti.cgiar.org/ethiopia>



Before they can be effective agricultural research leaders, African women must first be scientists of uncompromising quality.

AWARD partnered with the John Innes Centre (JIC) and the Roslin Institute to provide research placements for selected female scientists who participated in the AWARD Fellowship for EIAR. Referred to as Advanced Science Training (AST), the research placements are a fellowship component that seeks to strengthen the fellows' scientific research skills.

Delivering customized learning experiences at Mekelle University

Following a partnership agreement between AWARD and Mekelle University in Ethiopia to collaborate on the GRARD initiative, we designed and delivered a learning program on assertiveness and leadership. This training targeted 30 female academic staff

to equip them with practical leadership skills. Professor Kindeya Gebrehiwot, immediate former President of the University, said that the training was "a good opportunity to equip the women to fill the leadership gap and empower them to take roles at the leadership and management level." To deliver these interventions at Mekelle University (and in Ethiopia as a whole), we exploited the AWARD community in Ethiopia, which includes researchers who have experienced and benefited from our investment in building a pipeline of women in leadership. AWARD's footprint in Ethiopia has reached 144 people from various organizations, including universities, national and international research institutions, and development organizations.

Using a gender lens to increase agricultural productivity in Ethiopia

The gross underrepresentation of women in agricultural research in Ethiopia not only affects adoption of technology in the country where "women farmers perform up to 75 percent of farm labor, representing 70 percent of household food production"⁹ but also its overall agricultural productivity.

Ethiopia's government, cognizant of this challenge, is implementing programs such as the Capacity Development Support Facility (CDSF), an initiative funded through a bilateral agreement between the Government of Ethiopia and Global Affairs Canada under Ethiopia's second Agricultural Growth Program (AGP2).

AWARD partnered with CDSF to build Ethiopian researchers' capacity to conduct gender-responsive agricultural research in the country. We developed and delivered four training courses to a total of 119 researchers from five research institutions in Ethiopia:

- Tigray Agricultural Research Institute (TARI)
- Amhara Regional Agricultural Research Institute (ARARI)

⁹ <https://2012-2017.usaid.gov/results-data/success-stories/empowering-women-through-agricultural-development-ethiopia>

- Ethiopian Institute of Agricultural Research (EIAR)
- Oromia Agricultural Research Institute (OARI)
- Southern Agricultural Research Institute (SARI)

The participating scientists were equipped with a range of knowledge, including an enhanced understanding of gender-responsive research and the knowledge, skills, and tools to design and deliver gender-responsive research.

Supporting institutional transformation in Nigeria

AWARD has the most massive footprint in Nigeria, with more than 290 AWARD Fellows, Mentors, and Fellow's Mentees. We continued to increase our footprint in Nigeria by partnering with select institutions to bolster our intra-country engagements.

AWARD partnered with the Federal University of Agriculture Abeokuta (FUNAAB) to conduct a series of capacity-building interventions to improve awareness of gender responsiveness and create a shared understanding of the rationale for GRARD as part of an organizational change process. The AWARD-FUNAAB partnership delivered various interventions that directly benefited 142 (68 female and 74 male) staff. The key interventions included:

1. A mentoring program that seeks to foster knowledge sharing among staff members with different levels of experience. The mentoring program included a series of workshops such as the AWARD Mentoring Orientation Workshop, progress monitoring meeting, and regular mentoring meetings to assess their progress, challenges, and lessons. FUNAAB has now initiated the process of institutionalizing this mentoring program.
2. AWARD Scientific Writing and Publishing Skills Course: We delivered a five-day

course at FUNAAB that equipped early career researchers with skills and tools to effectively communicate their evidence to different audiences and publish research findings in peer-reviewed journals. A total of 27 junior scientists (55% of whom are women) attended the course. Their feedback revealed the richness of content, increased interaction through group works, experience sharing, and mutual learning on various scientific concepts and approaches. The field trip organized at a FUNAAB model village was also an opportunity to practice selected gender tools at the community level.

3. AWARD Gender Training for FUNAAB senior management: This training sought to equip participants with knowledge on the rationale



for gender responsiveness in agricultural research and institutional processes.

4. AWARD Leadership Skills Course for Emerging Leaders: Four staff from FUNAAB attended the regional leadership skills course for emerging leaders in Accra, Ghana.
5. AWARD Leadership and Assertiveness Course for 35 FUNAAB staff (18 male and 17 female) drawn from research, monitoring, and evaluation and administrative departments. The course helped the early career staff members to assess their capacities and manage themselves for effective leadership.

Bolstering its interventions in Nigeria, AWARD further designed and delivered a special Mentoring and Advanced Leadership Skills Course for 80 participants from Partnership to Engage, Reform and Learn (PERL), a program designed by the United Kingdom's Department for International Development (DIFD) to help Nigeria achieve public-sector reform. One participant described the course as "overwhelming," saying that they had "acquired knowledge, information on key topics that affect my work and my life in general." The course sought to equip participants with mentoring, leadership, and negotiation skills.

Institutionalizing Mentoring in Tanzania

One of the unique attributes of the flagship AWARD Fellowship is that fellows benefit from the guidance of a mentor, a seasoned expert carefully chosen to match the fellow's career field. In turn, the fellows identify and mentor junior women scientists in their home institutions. This mentoring model helps to develop the fellows' leadership skills and, at the same time, strengthens the future pipeline of women scientists. AWARD has recently scaled up our mentoring model and rolled it out to a select number of partner institutions, including the Nelson Mandela African Institute

of Science and Technology (NM-AIST) in Tanzania.

The mentoring program rolled out in NM-AIST included the AWARD Mentoring Orientation Workshop, junior and senior scientists' pairing, and regular mentoring meetings.

The Institute recognized that mentoring could be a highly effective way to foster an institutional environment where junior scientists and students could increase their knowledge and skills.

Associate Professor Anna Treydte appreciated AWARD's commitment to building scientists' capacity, emphasizing the importance of intergenerational networks for knowledge transfer.

Developing learning programs on gender and agriculture

The Gender Responsiveness for Accelerated Agricultural Gains training course

Through AWARD training, we strive to unlock the potential of scientific innovation for agriculture-driven inclusive growth and prosperity. Our courses empower individuals while strengthening institutions to pursue cutting-edge agricultural research.

Agricultural scientists make critical decisions that affect what happens across entire value chains. Their research must respond to the needs and priorities of diverse groups of men and women that it is designed to meet. Embracing gender in every aspect of an institution's work for better outcomes requires deliberate investment in a gender-transformative process.

AWARD identified and responded to the need to develop a tailored learning program



targeting agricultural researchers, research program managers, and the leaders of national and regional agricultural research institutions across Africa to enable them to catalyze, influence, and apply gender responsiveness in their research programs and organizations.

AWARD partnered with the KIT Royal Tropical Institute¹⁰ based in the Netherlands to design a five-day gender course, Gender Responsiveness for Accelerated Agricultural Gains. As a leader in strengthening gender capacity in agricultural research institutions and applying conceptual frameworks to advance gender equity in agriculture, KIT's expertise as a leader in this critical area made them a perfect partner to strengthen AWARD's training capacity.

The Gender Responsiveness for Accelerated Agricultural Gains course is designed to:

- create a shared understanding of gender-responsive research among participants
- equip participants with knowledge, skills, and tools to facilitate the design and delivery of gender-responsive research and programs

- effect a shift in attitude and behavior of participants to enable gender responsiveness in their organizational structures and systems
- facilitate participants' access to information, resources, and skills
- equip participants with knowledge and skills for hands-on application of gender analysis tools and field-level communication

Following a successful pilot, AWARD is now ready to roll out this course across Africa. AWARD has also customized the Gender Responsiveness for Accelerated Agricultural Gains course to meet the needs of specific institutions and research programs, including Covenant University in Nigeria. More than 400 researchers and research leaders participated in the training, building their capacity to deliver gender-responsive agricultural research and developing leadership skills.

AWARD now boasts nine unique training courses categorized under four series: the mentoring series, the leadership series, the science skills series, and the gender integration in agricultural research series.

¹⁰ <https://www.kit.nl/>



Chapter 3

When the elevator takes you to the top, be sure to send it back, open, for more women to get to the top.

~ Dr. Jemimah Njuki,
Vice-Chairperson, AWARD
Steering Committee

**Closing the gender
gap in Science,
Technology,
Engineering and
Mathematics (STEM)**

While AWARD focuses on building the capacity and skills of agricultural research scientists in Africa, we recognize that agricultural research is only one subset of scientific research, and the gender gap in agricultural research is reflected in other STEM fields more broadly.

Indeed, globally only three percent of women scientists make it to the top of their professions.¹¹ Our analysis revealed that failure to tackle institutional deficiencies and to promote strong and accountable leadership at all levels exacerbates the gender gaps recorded across Africa.¹²

One of the targets of **Sustainable Development Goal 5**, Achieving gender equality and empowering all women and girls, is to ensure women's full and effective participation in political, economic, and public life.¹³ STEM are essential drivers of this participation, yet systemic inequalities within these disciplines are limiting opportunities: less than 30 percent of the world's scientists are women, retention rates are low, and few hold leadership positions.¹⁴

The Global Forum on Women in Scientific Research (GoFoWiSeR)

Through our newest initiative, the Global Forum on Women in Scientific Research (GoFoWiSeR), we are intensifying our work on bridging the gender gap in STEM. GoFoWiSeR is designed as a global conversation that addresses the systemic causes of the gender gap in STEM and spotlights the strategies and approaches that improve women's numbers and experiences. In 2019, GoFoWiSeR mobilized seven international partners¹⁵ to catalyze new connections and strengthen the network of actors and advocates involved in promoting women's STEM involvement.



More than 300 participants from Africa, Europe, and the United States gathered in Dakar, Senegal, for the two-day event. A total of 32 speakers, including early-career scientists and a recipient of the Nobel Prize in Chemistry, spoke at the forum. The program was designed to address three main themes: investing in women's skills and networks, sustainable career pathways, and the role of institutions and research funders in addressing systemic inequalities.

GoFoWiSeR 2019 recorded a huge success, with 95 percent of the participants reporting that the forum created an opportunity to share and learn from others' experiences on how to improve the numbers of women in science.

¹¹ <https://www.catalyst.org/research/women-in-science-technology-engineering-and-mathematics-stem/>

¹² Gender and leadership in Africa: Exploring the nexus, trends, and opportunities, op. cit.

¹³ <https://www.un.org/sustainabledevelopment/gender-equality/>

¹⁴ <http://uis.unesco.org/en/topic/women-science>

¹⁵ African Academy of Sciences, Carnegie Corporation of New York, DFID East African Research Hub, International Development Research Centre Canada (IDRC), National Research Foundation, South Africa, PASET-RSIF, and U.K. Research and Innovation Hub.



More than 62 percent accessed information on funding opportunities, and 92 percent got a chance to forge networks with new people from the forum.

A follow-up survey revealed that 40 percent of those who pursued partnership discussions already have a preliminary agreement for partnership.

With empirical evidence indicating that only 30 percent¹⁶ of the world's researchers are women; one of GoFoWiSeR's objectives was to contribute toward increasing this percentage by exposing women scientists to opportunities that can enable them to enter research positions. It was encouraging to establish that GoFoWiSeR participants forged partnerships and accessed information on capacity-building opportunities. For instance, Aïchata Maïga, from the University of Ségou, Faculty of Agronomy and Veterinary Medicine in Mali, reported that her contacts made at the forum shared with her the call for applications for China scholarships, which

16 <http://uis.unesco.org/en/topic/women-science>

she applied and was successful in obtaining a scholarship for her PhD.

Another participant, Mariama Ngoma from Cheikh Anta Diop University (UCAD) in Senegal, reported that her participation in GoFoWiSeR allowed her, among other things, to discover and join two important networks, OWSD and AFTech. Ngoma further explained that joining these networks has allowed her to increase her visibility. “Besides, I am currently actively participating in the creation of OWSD and AWARD national chapters in Senegal to encourage and share our experiences with young people, especially young girls,” she notes.

In Kenya, Sally Kimathi from Egerton University explained that her participation in GoFoWiSeR resulted in a formal collaboration with a renowned scientist from the International Maize and Wheat Improvement Center (CIMMYT), with whom she is working on a joint paper. They hope to publish the article as a journal paper in a peer-reviewed journal in 2020. The article will give policy recommendations that can inform the effective dissemination and promotion of climate-resilient varieties to enhance adoption rates among farmers, highlighting gender differences in climate change adaptation and catalyzing investments.

Inspiring the next generation of African Women Scientists

The low representation of women in ARD in Africa has been well recorded, with data indicating that women represent on average only 24 percent¹⁷ of researchers.

Recognizing this low representation and the need to intervene at an early stage, AWARD partnered with the International Veterinary Vaccinology Network (IVVN), the University of Edinburgh, the International Livestock Research Institute (ILRI), the University of Ibadan, the University of Zambia, and the African

Vaccinology Network (AfVANET) to pilot the IVVN African Schools Outreach Programme in Kenya and Nigeria. A total of 120 high school girls aged between 15 and 17 years from Precious Blood Girls Secondary School-Riruta in Kenya, and Abadina Grammar School in Nigeria participated in the pilot program.

AWARD country chapters in Kenya and Nigeria, the primary vehicles through which we deepen our intra-country engagements, were key partners in the pilot program.

The African Schools Outreach Programme aims to shape and inspire the perspectives of the future generation of African scientists by exposing young girls to the latest trends and career options in veterinary science.



17 agrigender.net/uploads/JGAFS-212017-1-Paper.pdf

A stylized graphic of a tree with a white trunk and branches, and a dense forest of dark blue trees at the bottom. The white trunk runs vertically down the center of the page, with a few small white leaves at the top. At the bottom, there is a thick layer of dark blue, stylized tree trunks and branches, some with small dark blue leaves.

Chapter 4

Partnering for Impact

To influence and change policies and practice, we must rely on affiliated institutions and individuals interconnected with other teams and institutions

~ Dr. Marie-Christine Cormier-Salem, Director, Agropolis Fondation, France.

Together with our partners, we have made great strides in supporting individuals and institutions to deliver agricultural innovations that better respond to the needs and priorities of a diversity of men and women and strengthen the production and dissemination of more gender-responsive agricultural research innovation.

Partner Spotlight: Agropolis Fondation

Since 2009, a partnership between Agropolis Fondation and AWARD has made a tremendous contribution to our shared mission of building and sustaining a robust and effective talent pool in agricultural research for Africa. In its mission to promote and support high-level agricultural research for sustainable development, Agropolis has been a valued partner of AWARD, first in the flagship AWARD Fellowship for African women scientists, then more recently in the One Planet Fellowship.

One particularly fruitful collaboration area has remained on AST placements for African women scientists in some of the leading

French research laboratories. AST placements are designed to strengthen and expand the scientists' technical expertise in their selected research areas and to help African women scientists broaden their professional networks.

Hosting an AST placement offers European institutions and their researchers deep insight into the research agenda and context within which their African counterparts are conducting research. AST placements also provide both European and African scientists with the opportunity to enter into new and ongoing research collaborations and expanded professional networks.

The first AWARD Fellow to benefit from the partnership between AWARD and Agropolis Fondation was a 2011 AWARD Fellow, Dr. Bolanle Otegbayo, a Nigerian scientist investigating food quality and industrial potential of Nigerian yams.

Since then, many more women have had the opportunity to deepen their skills and widen their networks through this partnership. Between 2011 and 2017, the Agropolis Fondation hosted 22 women scientists from eight African countries.





Featuring Dr. Marie-Christine Cormier-Salem

Director, Agropolis Fondation

Dr. Marie-Christine Cormier-Salem is the Director of Agropolis Fondation, France. Throughout her career, Dr. Cormier-Salem has believed in two principles: the co-construction of knowledge (academic and non-academic, from diverse disciplines and sectors, with local people, notably farmers, managers and decision-makers) and fostering international partnerships that strengthen and leverage talents for sustainability in R&D. Her current research interests focus on the resilience and adaptation of agricultural systems to climate change, agri-food systems, and public policies, emphasizing international mechanisms for environmental governance.

Why does Agropolis Fondation care about supporting research capacity?

The best way to help communities in the south is to empower them, not just financially, to obtain resources. I am thinking of Amartya Sen's concept of empowerment and capabilities. In this respect, Agropolis believes that it is crucial to support research teams' capacities in Africa. And for research, training and coaching are significant challenges. It is not only a question of supporting research capacities but also a question of training researchers, which is why Agropolis Fondation has committed itself alongside AWARD in the One Planet Fellowship. The awareness accompanies this willingness that if we want to change things, practices, and policies, we must rely on institutions and individuals that are interconnected with other teams and institutions. The One Planet Fellowship is emblematic of this need, allowing African researchers to study in Europe, join teams,

and initiate lasting relationships. This approach is accompanied by keen attention to not disconnecting researchers from the realities of their countries to avoid brain drain, which is a real scourge in the field of research, as in many other areas.

The current public health crisis caused by the coronavirus is becoming a major food crisis. More than ever, research will have to rise to the occasion.

Agropolis Fondation is anchoring its action in support of women by being an AWARD partner, the gender dimension being an integral part of its vocation.

Finally, as a foundation for scientific cooperation, we have a societal objective—the promotion of agroecology—which can be achieved only by engaging and training individuals and institutions whose values it shares, as is the case with AWARD.





How has the partnership with AWARD impacted Agropolis as a research institution?

The partnership with AWARD is a balanced, long-term partnership. It has allowed us to change our practices, to move things forward. The One Planet Fellowship is about research training and the co-construction of knowledge and innovation. The values of equity (gender), resilience, and accountability are based on this partnership for a unique program in its design and implementation.

I have devoted my career to supporting partnerships in Africa, particularly in the most fragile countries shaken by political insecurity, such as Guinea Bissau and Mauritania. In general, sub-Saharan African countries are even more delicate, hit hard by the impact of climate change. It is no longer possible to intervene in "traditional" development projects. This is the partnership's strength with AWARD, enabling the link to be maintained and supporting research through training.

The fact that I was recruited to the foundation's management is not neutral. It is a sign of the founding members' willingness to provide further support to the South's scientific communities and, within these communities, to women in particular.

AWARD's success is a sign that there are real needs, which the organization is responding to. That is why we are committed to our partnership with AWARD.

What is the role of strategic partnerships in carving the face of agricultural research?

One of the One Planet Fellowship's priorities is to build the scientific capacity of the men and women working in agriculture and climate change. Agropolis Fondation is supporting the AST component of the program.

By supporting the fellows, we are not only helping individuals (our champions) and their trainees; we are building and contributing to the strengthening of networks of researchers at different levels: within their countries, between African countries, and between Africa and Europe. Beyond that, I believe in strengthening links within the subregion, between English-speaking and French-speaking countries, which are mostly very tenuous.

One of the critical impacts expected from the One Planet Fellowship is that by the end of the program, more than 600 researchers will have circulated within institutions and laboratories, exchanged ideas, created a network of partners, and changed our practices. These researchers will be our champions, who will pass on new ideas and approaches and convey values to politicians' and others' attention.

What are the priorities the foundation is preparing to ensure that the One Planet Laureate Candidates are getting the relevant training to accelerate their careers and influence positive change in the context of climate change and agriculture?

In the 21st century, gender equality has become a political issue, before being a moral issue, a requirement for harmonious and sustainable development. SDG 5 recognizes gender equality as a fundamental human right and a necessary foundation for a peaceful, prosperous, and sustainable world. We cannot ignore the imperative need for gender responsiveness in the face of climate change. The active inclusion of gender transformative approaches in policy and programs ensures that all concerns are addressed.

Beyond this strong political injunction, we, AWARD and Agropolis Foundation with

our partners, need to strengthen women's sustainable agriculture and food capacities. Gender balance is not only an issue of equity and equality but also of efficiency. Indeed, integrating gender is key to greater effectiveness. Women are, all over the world, whether recognized or not, critical players in decision-making processes. In this regard, I must say that I am doubly satisfied that the IDRC boosted the fellowship interventions by funding the participation of additional women scientists from francophone Africa. This specific support will make it possible to counterbalance both the gender dimension and the under-representation of francophones in the African agricultural research world.

How does the Agropolis Fondation ensure that the impact of gender integration goes beyond the Montpellier scientific network?

Agropolis Fondation's scientific network extends beyond Montpellier, with partners in Avignon, Perpignan, and Reunion Island and through its joint research units and multiple national and international partnerships. The foundation has a rich and diversified network.

But the One Planet Fellowship will allow fellows to travel beyond the foundation's usual network. Thanks to the European Union's DeSIRA program¹⁸, we will connect fellows to other research and higher education institutions in more European Union member states, thereby promoting diversity. We will explore hosting arrangements with research organizations and universities in the Netherlands, Belgium, Germany, Italy, Switzerland, Poland, the Czech Republic, and Slovenia.

This dimension is vital for the project, and several European countries will explore their synergies. With Montpellier being one of the main hotspots for agroecology, the project could help capitalize on what is being done to increase influence at both the European and international levels.



¹⁸ <http://desira2020.eu/the-project/>

AWARD digital footprint

We continued exploiting the potential of digital communication platforms to deepen our communication and stakeholder engagement.



Meet the people behind AWARD's work

Steering Committee

Our steering committee members are the torch that guides AWARD in its quest to equip top African scientists with skills that will improve outcomes for Africa's smallholder farmers as well as strengthening the voice of the continent's women, on the farm, in the laboratories, in markets, and in policy forums.



Professor Lateef Oladimeji Sanni (Chair)

Project Manager:
International Institute of Tropical Agriculture (IITA) Nigeria



Dr. Jemimah Njuki (Vice-Chair)

Director for Africa
International Food Policy Research Institute (IFPRI).



Dr. Wanjiru Kamau-Rutenberg (SC Secretary & ex-officio)

Director:
African Women in Agricultural Research and Development (AWARD)



Ms. Jodi Lilley (ex-officio)

Program Officer Agricultural Development
Bill & Melinda Gates Foundation (BMGF)
2018 to 2020



Dr. Katherine Kahn

Senior Program Officer
Agricultural Development, Research & Development
Bill & Melinda Gates Foundation (BMGF), USA
October 2020 to current



Ms. Christine Larson-Luhila (ex-officio)

Senior Governance Advisor and Secretary to ICRAF Board of Trustees,
World Agroforestry (ICRAF)
2016 to June 2020



Mr. Oliver Oliveros (ex-officio)

Deputy Director
Agropolis Fondation



Professor Frans Swanepoel

Director
Strategic International Partnerships, University of Pretoria (UP),
South Africa



Dr. Justin Pita

Executive Director
West African Virus Epidemiology (WAVE) project



Ms. Andrea Johnson

Program Officer
Higher Education & Research in Africa
Carnegie Corporation of New York, USA



Dr. Margaret Najjingo Mangheni

Associate Professor of agricultural extension
Makerere University, Uganda



Professor Judith C. Ngalande Lungu

Former Deputy Vice-Chancellor
Mulungushi University and Kwame Nkrumah University and board
member, International Livestock Research Institute (ILRI)



Dr. Arona Diedhiou

Senior Research Director
National Research Institute for Sustainable Development (IRD)

Meet the Staff

Our staff team is made up of passionate individuals who are very motivated in helping AWARD achieve its objectives and vision. We pride ourselves in creating an environment where creativity flows freely and hence synergy is easily achieved.



**Wanjiru
Kamau-rutenberg**
AWARD Director



Dorothy Mukhebi
Deputy Director,
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Hailemichael Beyene
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Dorine Odongo
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Sabina Bwire
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Kenneth Macharia
Program Analyst



Joyce Mukeli
Communications
Assistant



Joan Onyango
Communications
Assistant



Esther Njeru
Senior Officer, Training
and Development



Hellen Ochieng
Senior Training Officer

Trainers

AWARD retains a pool of some of the continent's leading trainers from 12 African countries to deliver our training courses



**Achille Ephrem
Assogbadjo**
Agronomist



**Adeline Rwashana
Muheebwa**
Gender and
Development
Consultant, Trainer,
Agribusiness Specialist



Albert Tsindi
Crop Scientist



Allan Bukusi
Leadership
Advisor, Training
Consultant



Anne Marie Nyamu
Professional
Communications



Benjamin Kamoye
Certified Lead
Coach, Trainer, Speaker



Christian Kakuba
Population Scientist



Christopher Oyoo Yaye
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Douglas Ouma
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Specialist



**Zalia Ouedraogo
Mantoro**
Lecturer



AgSpirations

African Women in Agricultural Research and Development (AWARD) is working toward inclusive, agriculture-driven prosperity for the African continent by strengthening the production and dissemination of more gender-responsive agricultural research and innovation. We invest in African scientists, research institutions, and agribusinesses so that they can deliver agricultural innovations that better respond to the needs and priorities of a diversity of women and men across Africa's agricultural value chains.

For more information, visit www.awardfellowships.org

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