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Six talented women climate scientists from developing countries awarded the 2022 OWSD-Elsevier Foundation Award

Helping elevate the careers of over 50 women researchers, the partnership has recognized prize-winning science from more than 20 countries in the Global South since 2013

Amsterdam, February 11, 2022 – Six researchers have been awarded the 2022

[OWSD-Elsevier Foundation Award for Early-Career Women Scientists in the Developing World](#) for their contributions to research that is helping tackle climate change and advancing the UN Sustainable Development Goals (SDGs) including: [SDG13 \(Climate Action\)](#), [SDG14 \(Life Below Water\)](#) and [SDG15 \(Life on Land\)](#).

The winners' research explores a wide range of environmental impacts and their potential solutions: from turning waste into man-made soil; transforming plastic pollution into viable products for community trade; harnessing the power of microbes to improve carbon storage and soil quality; and using the right types of plants with roots to help prevent soil erosion and encourage soil 'plasticity'.

The prize also acknowledges the scientists' commitment to leadership, mentoring and engagement within their communities, including the use of innovative technologies in their research.

President, Jennifer Thomson, of the Organization for Women in Science for the Developing World (OWSD) said: "What our 2022 winners are doing is absolutely outstanding. Climate change is the most pressing challenge of our time, and these women are finding innovative and effective ways to address it in their local contexts. We hope this award is the first of many for them."

This year's winners are:

- **Myriam Mujawamariya** of the University of Rwanda; in Biological Systems and Organisms.
- **Abeer Ahmed Qaed Ahmed** of Al-Saeed University, Yemen; in Biological Systems and Organisms.
- **Gawsia Wahidunnessa Chowdhury** of the University of Dhaka, Bangladesh; in Biological Systems and Organisms.
- **Heyddy Calderon** of the Instituto de Geología y Geofísica, Nicaragua; in Engineering Sciences
- **Ashani Ssavinda Ranathunga** of University of Moratuwa, Sri Lanka; in Engineering Sciences.
- **Flor de Mayo Gonzalez Miranda** of San Carlos University, Guatemala; in Engineering Sciences.

Those interested can meet the winners for the first time, as they appear virtually in the upcoming panel, "[Minority and Women in STEMM Awards](#)," at the upcoming [AAAS Annual Meeting](#).

First awarded in 2013, the award is given in partnership by the [OWSD](#) and [Elsevier Foundation](#). OWSD chairs a panel of distinguished scientists to select the winners, and the Foundation awards a cash prize for each winner of USD \$5,000, as well as an all-expenses-paid trip to attend a prominent scientific gathering to provide them with vital networking opportunities.

This year's award ceremony will take place on March 24, both virtually and in-person as part of the International Conference on Gender Action and Climate Change in Istanbul, Turkey at Istanbul Aydin University (IAU) on March 24, 2022.

Ylann Schemm, Director of the Elsevier Foundation said: "We have reshaped our award this year to respond to the key challenges of our time, such as climate change, and supporting the progress being made around the UN SDGs. We know that a quarter of all women are engaged in agriculture, which makes them more vulnerable to both climate change and resource scarcity. We want to reflect the critical role that women can play in successfully addressing climate shifts."

Past Award winners have been invited to meet their country's presidents, and have been celebrated by local, national and international media, while other winners have gone on to receive other prestigious awards and fellowships including L'OREAL-UNESCO's For Women in Science Fellowships and the British Council Award.

Read more about this year's OWSD-Elsevier Foundation Award on [Elsevier Connect](#).

Notes for editors

Reference sheets for each award winner, with a more extensive biography and description of their work, are available upon request, please contact the Elsevier Newsroom at newsroom@elsevier.com. For interview requests, journalists can contact Domiziana Francescon, Elsevier Foundation & External Partnerships Manager at d.francescon@elsevier.com.

Short bios of the 2022 winners:

- **Myriam Mujawamariya** in **Biological Systems and Organisms**. For her research on the responses of native tree species in Rwanda to climate change. Her work will inform the most effective approach to reforestation and land restoration and identify the best tree species to facilitate soil stabilization, climate regulation, biodiversity, and bioenergy. "Receiving this prestigious award is a great recognition and driving force to expand my research. This is also an inspiration for young girls in advancement of their career to ensure equity in Climate action and the Environment in the developing world," said Dr. Mujawamariya
- **Abeer Ahmed Qaed Ahmed** in **Biological Systems and Organisms**. For her work on microbiology- and nanotechnology-based solutions to pressing problems such as carbon emissions, drug-resistant pathogens, and fossil fuel dependence. She has studied the use of microbes in agricultural land to increase carbon sequestration and improve soil quality, the use of microbes to convert biomass into pharmaceuticals, and the effects of environmental and

nutritional conditions on microbial biological processes to inform treatment against multi-drug resistant microorganisms. “The OWSD-Elsevier Foundation Award gave me encouragement and recognition during an important time on my journey as a scientist. This recognition will inspire me to keep going and inspire young people who are looking up to us to light their paths. This award gave me confidence and showed me that I am going in the right direction,” said Dr. Ahmed.

- **Gawsia Wahidunnessa Chowdhury in Biological Systems and Organisms.** For her work on conservation of aquatic ecosystems and threatened species in Bangladesh. In particular, she focuses on assessing the extent of and the risks from plastic pollution, which is closely linked to climate change. Dr. Chowdhury is leading an effort to educate women in poor and marginalized fishing communities about how discarded Nylon-6 fishing nets can be turned into value-added products such as carpets and clothing, creating an alternative income source for the communities while protecting the wetland habitats. “Winning this Award is like a promise to continue my research and teaching with new hope. This award gives me a scope to prove what women in science and conservation can achieve while working hard with sincere commitment. I believe this award will inspire my daughter, my students and everyone here in Bangladesh to showcase that with different limitations, scientific research can be done and achieved recognition worldwide,” said Dr. Chowdhury.
- **Heyddy Calderon in Engineering Sciences.** For her work to provide secure and sustainable water sources for vulnerable populations in Central America. Dr. Calderon works with local communities in dry regions to increase their capacity to cope with climate variability and climate change, as well as with decision makers and local stakeholders to help them plan and prepare for the future. “This award is an inspiration to me. I am joyful and honored by the recognition of my work; but also, I feel the responsibility to keep pushing boundaries for the women who come behind us,” said Dr. Calderon.
- **Ashani Ssavinda Ranathunga in Engineering Sciences.** For her work turning industrial and agricultural waste into anthropogenic (man-made) soil for soft ground improvement and mine rehabilitation. Her research findings enable the effective utilization of locally available waste and by-products for economical and ecofriendly construction and development projects. “This award recognizes my contribution to the field of geo-environmental engineering and encourages me to follow my passion and inspire young women in developing countries to take the initiative to work for the advancement of science, irrespective of their circumstances,” said Dr. Ranathunga.
- **Flor de Mayo Gonzalez Miranda in Engineering Sciences.** For her work engineering better landslide prevention for vulnerable areas in Guatemala. Dr. González Miranda is investigating how specific grasses in the vetiver can help to prevent landslides. Through soil tests, X-ray diffraction, and other techniques, she has shown how the plants' roots alter the chemical, physical and mechanical behavior of the soil, reducing the speed of soil infiltration as well as soil plasticity. “This award allows me to say that all living organisms are a system that must follow its natural evolution. It also gives me back my voice to tell politicians that corruption takes away human development and pushes the great masses to emigrate, expressing my urgency to legislate on measures to protect the environment: that these laws are not dead words,” said Dr. Gonzalez Miranda.

To find out how the OWSD-Elsevier Foundation Award helps shape our understanding of the Global South, find out more about 2021's winners below:

- [Harnessing nanotechnology for cancer drug delivery and ecofriendly fertilizers](#), with Imalka Munaweera.
- [How my teacher said I asked too many questions: From curious to award winning researcher](#), with Ghada Dushaq.
- [Using mathematics to solve practical problems: It's elementary](#), with Khongorzul Dorjgotov.
- [Seeking the secrets of the universe in the particle](#), with Maria Eugenia Cabrera Catalan.
- [Ghanaian chemist is finding toxic substances in unusual places](#), with Marian Asantewah Nkansah.

About OWSD

The [Organization for Women in Science for the Developing World](#) (OWSD) provides research training, career development and networking opportunities for women scientists throughout the developing world. Headed by eminent women scientists from the South, OWSD has more than 7,000 members and runs various programs, including a [PhD fellowship programme](#) with over 330 successful graduates from Least Developed Countries and sub-Saharan Africa, as well as an [Early Career fellowship programme](#) providing research grants of up to USD\$50,000 in addition to leadership training. OWSD is the first international forum to unite women scientists from the developing world with the objective of strengthening their role in the development process and promoting their representation in scientific and technological leadership. OWSD is affiliated with The World Academy of Science (TWAS), a program unit of UNESCO, and is based in Trieste, Italy, with national chapters throughout the developing world. www.owsd.net

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