



The Elsevier Foundation Chemistry for Climate Action Challenge

Location: Global, focus on challenges in Global South

Target group: Researchers

Budget: \$55,000 a year (2018-2020), \$28,000 a year (2021-2023).



Primary outcome

The Challenge awards projects that use green and sustainable chemistry solutions to tackle some of the Global South's greatest challenges identified by the UN Sustainable Development Goals.

Overview

The 2023 Intergovernmental Panel on Climate Change report has underscored that climate change is the most important challenge affecting the future of our planet. The need for innovative ideas to tackle global issues is more pressing than ever and chemistry can play a key role in finding practical and sustainable solutions to urgent challenges in the UN Sustainable Development Goals agenda.

After 5 successful editions of the Elsevier Foundation Green & Sustainable Chemistry Challenge and thousands of proposals from around the world, the Challenge was relaunched in 2021 with a new focus on Climate Action (SDG 13). Jointly run and funded by Elsevier Chemistry journals, the [Chemistry for Climate Action Challenge](#) aims to raise awareness and build networks around how chemistry can help us make crucial progress towards the UN SDGs. The Challenge invites applicants to submit ideas for chemistry solutions to address a range of sustainability challenges in the Global South from energy and water to waste reduction, recyclability, chemistry, agriculture, medicine and more.

The Challenge also supports SDG5 Gender Equality, recognizing the pivotal role that women play in combating climate change. Projects submitted to the Challenge must integrate a gender dimension (such as addressing the role of women in adapting to climate shifts and participating in policymaking and leadership roles) in their projects. Two winning projects will each receive a prize of €25,000.

Goals

- Highlight innovative green chemistry projects that address issues in developing countries with a strong emphasis on climate resilience.
- Encourage sustainability science, international collaboration, and scientific exchange in the Global South.
- Create visibility for an emerging field in the chemistry world.
- Support the integration of sex and gender dimensions in chemistry research.

Activities and milestones

- Due to pandemic-related delays, the 2022 Elsevier Green & Sustainable Chemistry Conference did not take place. As the Conference provides an impactful platform for the Award Ceremony, the team decided to pause the Challenge for 2022. As a result, applications for the 2023 edition opened in September 2022.
- In 2022, a total of **98** proposals were received (vs 106 in 2021) from **47** countries (vs 26 in 2021).
- Working closely with the 5 Challenge judges, the 5 2023 finalists were selected. They come from Thailand, Philippines, Malaysia, Somalia and Malawi.

“What I cherish about chemistry is how it makes it easier to solve complex contemporary and future problems. As a researcher, I love to come up with alternative solutions that solve pertinent problems for people and society.” — BRENYA ISAAC, 2021 Winner, Ghana

Right photo: Dr. Hong Pham, from Vietnam, winner of the 2021 Challenge. Left photo: Chuck Chuan NG, 2023 finalist for the project "Youths Empowerment Through Vetiver Bioremediation for Climate Action in Malaysia".

Sustainability and future plans

- The 5 2023 finalists will pitch their projects at the [Elsevier Green & Sustainable Chemistry Conference](#) in Dresden, Germany (22-24 May 2023). The winners of the 2023 edition of the Challenge will be awarded during a special Award ceremony at the Conference.
- Thanks to additional funding from the Elsevier Chemistry Journals portfolio, 2020 and 2021 winners will join a special in-person retrospective session at the 2023 Elsevier Green & Sustainable Chemistry Conference to celebrate their achievements and share how their projects have progressed. These include 2021 winners Brenya Isaac (Ghana) and Pham Hong or Dinh Van Khuong (Vietnam), 2020 winners Diana Carolina Parada Quinayá (Colombia) and Clifford Okoth Owino (Kenya), 2019 winners Ramia Albakain (Jordan) and Ankur Patwardhan (India).
- The 2024 Challenge will be launched in September 2023 and prizes will be awarded during the 2024 Elsevier Green & Sustainable Chemistry Conference in Dresden, Germany.

“Involving women in sustainable development activities is very important because it will empower [...] and transform the idea of *leaving no one behind* into a reality. Integrating sex and gender dimensions in sustainability research will foster women participating in leadership and decision-making, or involving them in income-generating activities which would protect them from violence, poverty and sexual harrassment.” — HONG PHAM, 2021 Winner, Vietnam