The Elsevier Foundation

2025 Partnerships

Chemistry for Climate Action Challenge

Elsevier Chemistry Portfolio

Location

Low- and middle-income countries

Target group

Green & sustainable chemistry researchers

Budget

$55,000 a year (2018–2020), $35,000 a year (2021–2027)

SDGs

SDG 5 (target 5.5), SDG 10 (target 10.2) and SDG 13 (target 13.1)

Synopsis

The Chemistry for Climate Action Challenge recognizes projects that use green and sustainable chemistry solutions to tackle some of the greatest challenges identified by the UN Sustainable Development Goals.

Program description

Climate change is the most important challenge affecting the future of our planet as underscored by the latest Intergovernmental Panel on Climate Change (IPCC) reports. The need for sustainable ideas to tackle global issues is now more pressing than ever, and chemistry can play a key role in finding practical solutions to urgent challenges, advancing the achievement of the UN SDG agenda.

A longstanding collaboration with Elsevier Chemistry journals, the Challenge raises awareness and builds global networks of researchers making crucial progress towards the SDGs. In addition to SDG13 Climate Action, the Challenge also supports SDG5 Gender Equality, recognizing the pivotal role that women play in combating climate change. The winning projects each receive a prize of $25,000.

Goals

- Highlight innovative green chemistry projects that address issues in low- and middle-income countries, with a strong emphasis on climate resilience.
- Encourage sustainability science, international collaboration, and scientific exchange.
- Support the integration of sex and gender dimensions in chemistry research.

Activities and milestones

- In 2025, a total of 213 applications were received from 60 countries.
- The top 5 finalists, from India, South Africa, Sri Lanka, the Netherlands, and Mexico pitched their projects at the 9th Elsevier Green & Sustainable Chemistry Conference in Pune, India (4-6 March 2025) and 2 winners were selected.
- The Elsevier Foundation hosted a roundtable discussion at the conference with the 2025 finalists, Challenge alumni and jury members to discuss innovative sustainable chemistry solutions and their impact on communities in the Global South.

Spotlight on the 2025 winners

The 2025 winners demonstrated how green and sustainable chemistry offers tangible ways to support Climate Action (SDG13) in their local communities.

Dr Pooja Singh, Assistant Professor at the Symbiosis Centre for Waste Resource Management of Symbiosis International (Deemed University) in India, received $25,000 for her project Transforming waste into sustainable sanitary pads. By utilizing locally sourced materials such as water hyacinth and tapioca, Dr Singh's team will create a multi-layered sanitary napkin that not only prioritizes menstrual hygiene but also addresses pressing waste management issue.

Dr Mokgadi Hlongwane, Lecturer and Work Integrated Learning Coordinator at the Tshwane University of Technology in South Africa, received $25,000 for her project enhancing the resilience of medicinal plants, particularly Lessertia frutescens, a plant indigenous to South Africa and used to treat various ailments, including wounds, fever, diabetes and cancer. Dr. Hlongwane's project seeks to develop beneficial bacteria promoting the plant's growth and resilience against climate stress — thereby ensuring the continued availability of these crucial remedies.

"The proceeds of this award will be used to accelerate the development of a bioinoculant that enhances abiotic stress tolerance for sustainable cultivation of medicinal plants and crops. Backyard and small-scale farmers are going to be equipped with skills to farm smart and sustainably. This milestone serves as an endorsement for the credibility and potential of our project."

Dr Mokgadi Hlongwane
Lecturer and Work Integrated Learning Coordinator, Tshwane University of Technology, South Africa

"I am extremely honored and humbled to receive this prestigious award," said Dr Singh. "On behalf of my team, I extend our gratitude to the Elsevier Foundation for this opportunity. This recognition validates the importance and potential of our work and underscores the significant role of chemistry and biotechnology for addressing local environmental and health issues."

Dr Pooja Singh,
Assistant Professor, Symbiosis Centre for Waste Resource Management of Symbiosis International, India

Impact at a glance

18
green and sustainable chemistry projects supported since launch

$673,280
in prize money awarded

18
alumni active across 17 countries

9
alumni contributing as editors, reviewers, speakers or advisors

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