

The Elsevier Foundation Chemistry for Climate Action Challenge

The Chemistry for Climate Action Challenge is one of the Elsevier Foundation's flagship partnerships. Together with Elsevier's Sustainable Chemistry journals, the Elsevier Foundation provides funding of 25,000 dollars (USD) for 2 winning projects per year, implementing green & sustainable chemistry solutions in the Global South - advancing both Climate Action (SDG13) and Gender Equity (SDG5).

Climate change is the most important challenge for the future of our planet, affecting every country on every continent, and it is essential that we take action. Climate change is not only causing rising sea levels and changing weather patterns but is also disrupting national economies and affecting lives.

Chemical sciences play a critical role in developing a sustainable future: whether it's CO₂ reduction and utilization, cleaner production, energy conversion and storage, entire lifecycles of chemical products, or waste reduction.

UN SDG13, Climate Action, mentions the need to "[...] promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on women, youth and local and marginalized communities". Over the years, the Challenge has demonstrated excellent outreach in low- and middle-income countries and many winning projects that make a difference for local communities.

Through its focus on Climate Action, the Chemistry for Climate Action Challenge also aims to recognize the pivotal role women play in combating climate change. [UN Women reports](#) that globally, one fourth of all economically active women are engaged in agriculture, where they must contend with climate consequences such as crop failure, and also have the disproportionate responsibilities for collecting increasingly scarce water and fuel. Projects submitted to the Challenge must therefore take into consideration gender components such as addressing the role of women in adapting to climate shifts and participating in policymaking and leadership roles.

Challenge Criteria

Proposals need to have all the criteria described below, namely have a strong green & sustainable chemistry component, using a novel approach for a solution to an urgent problem, be applicable in and suitable for low- and middle-income countries, replicable, scalable, sustainable and, have an impactful gender component.

Projects will be reviewed according to the criteria below:

- The proposal clearly describes the **urgency** of the problem.

Provide a description of the project background and include a description of the broader context, the urgency of the problem, and highlight how the project links to the United Nation Sustainable Development Goals (SDGs). Particularly describe how the project links to [SDG13 Climate Action](#) and the sub-targets of this SDG such as: strengthening resilience to climate-related hazards, improve education and awareness, address the needs of low- and middle-income countries. Additionally, describe if and how the project interlinks with other SDGs (e.g., SDG3 Good Health and Well-being, SDG5 Gender Equality, SDG15 Life on Land, etc.), resulting in co-benefits.

- The project utilizes **innovative** green and sustainable chemistry and chemical sciences approach, for example:
 - CO2 reduction and utilization, cleaner production, energy conversion and storage
Reduces or eliminates the use or generation of one or more hazardous substances or materials;
 - More sustainable use of resources and cleaner low energy production;
 - Increase reuse or recyclability of chemicals/product;
 - Designs a new business model related to the circular economy.
- The project is **replicable, scalable, sustainable** (make sure to specify why), and sets a benchmark for innovation – new ideas or concepts in development will be given preference over more advanced projects.
- The proposal **highlights the novelty of your approach** and gives a **short literature overview** of what has been done before, both by you and others (“background”).
- The project is **applicable in and suitable for low- and middle- income countries**. Describe the project’s social impact on local communities, including gender equality either in design or implementation.
- The project **must have an impactful gender component, and if relevant describing the sex/gender dimensions of the research**. To know more about best practices in designing and implementing sex/gender components into chemical sciences-related projects, please refer to the [‘Gender Road Map: Short guidance for a gender-responsive national chemicals policy’](#), developed by the [MSP Institute](#). Another helpful reference is [‘Toolkit for Integrating Gender-Sensitive Approach into Research and Teaching’](#), developed by [GARCIA](#) in collaboration with a number of universities (i.e., Radboud University, University of Trento, Université Catholique de Louvain etc.). Additionally, [Gendered Innovations](#) (Stanford University) provides practical methods of sex, gender and intersectional analysis for scientists – and offers case studies as concrete illustrations of how this analysis leads to innovation.

- The project must include an **implementation plan**. Please note that if the project has been developed in a high-income country, contextually appropriate knowledge transfer to the lower income country is needed to be demonstrated, for instance through a developing country implementation or research partner(s). If the idea presented is already patented, it will not be eligible.
- The project must also disclose a **full and detailed budget plan** in USD highlighting any funding already raised and plans to close any funding gap between the prize money of USD 25,000 and your total budget costs.

Frequently Asked Questions

1. How do I submit my proposal?

You can submit your proposal on the Elsevier Foundation Chemistry for Climate Action Challenge platform at this link:

<https://app.oxfordabstracts.com/stages/75763/submitter>

2. What is in scope and what is out of scope for the Challenge?

In-scope: scale ups of early-stage projects where the prize represents most of the overall needed budget; innovative green & sustainable chemistry solutions implemented in the Global South. For example, projects looking at Sustainable Chemistry Solutions: Waste Utilization; Alternative Energy Sources; Biodiversity and Ecosystem Health; Climate Change Mitigation; Community Empowerment; Sustainable Agriculture; Water Resource Management; Health and Well-being:

Out-of-scope: projects to be implemented outside of low-and-middle income countries; projects with no gender component, educational projects without a strong scientific green & sustainable chemistry component; prize money mainly used on expensive equipment; prize money mainly used on personnel; projects in the global South without a local implementation partner.

3. What are the Challenge's process and deadlines?

The Elsevier Foundation Chemistry for Climate Action Challenge is articulated in the following phases.

- Submission phase: this is the general submission period. Proposals can be submitted from June 15, 2024, to September 15, 2024.

- Reviewing phase: out of all submitted proposals, the top tier eligible proposals will be selected by a panel of reviewers and will be advanced to the judging phase.
- Judging phase: the scientific jury will evaluate the proposals and identify the finalists. The Top 5 finalists will be selected to compete for the two prizes and will be invited to present their proposal at the 9th Elsevier Green & Sustainable Chemistry Conference (3-6 March 2025).

4. What are the prizes of the Elsevier Foundation Chemistry for Climate Action Challenge?

The Elsevier Foundation Chemistry for Climate Action Challenge awards 2 prizes of 25,000 dollars (USD) each.

The Challenge award projects that use green and sustainable chemistry solutions to tackle some of the developing world's greatest sustainability challenges – encouraging researchers to come up with new solutions.

5. When will I know the results of my application?

- The list of the top tier proposals that will be advanced to the judging phase of the Challenge will be published in November 2024 the Elsevier Foundation website.
- The list of the Top 5 proposals will be published on our website in December 2024. The finalists will be invited to present their project at the 9th Elsevier Green & Sustainable Chemistry Conference (3-6 March 2025), where the winners of the two prizes will be announced.

6. Can I get feedback on my proposal?

Unfortunately, due to the high number of applicants, it is not possible to offer individual feedback.

7. Is it possible to get a certificate to prove that my proposal was selected as a top tier proposal?

Yes, it is possible. Requests for certificates should be made at chemistry.challenge@elsevier.com.

8. Who can I contact if I have additional question?

For any question or clarification, you can reach us at chemistry.challenge@elsevier.com.