

PRESS RELEASE

EMBARGO UNTIL 17 JANUARY 2022

Global coalition of leading scientists calls for International Non-Use Agreement on Solar Geoengineering

17 January 2022

More than 60 senior climate scientists and governance scholars from around the world have launched a global initiative today calling for an **International Non-Use Agreement on Solar Geoengineering**. They argue that solar geoengineering deployment cannot be fairly governed globally and poses unacceptable risk if implemented as a future climate policy option. The group therefore calls on fellow academics, civil society organizations and concerned individuals to [sign an open letter](#) to governments, the United Nations and other actors to stop development and potential use of planetary-scale solar geoengineering technologies. The initiative draws on an academic journal article published today in [WIREs Climate Change](#), co-authored by 16 scientists and initiators of this group.

The initiative for a non-use agreement mobilizes especially against the most widely debated speculative technology: the massive spraying of aerosols in the [stratosphere](#) to block a part of incoming sunlight to cool the planet. Such dangerous planetary-scale interventions cannot be governed in a globally inclusive, fair and effective manner and must therefore be banned, according to this group of scientists and governance experts.

As stated by Professor Frank Biermann from Utrecht University, a leader of the call for a Non-Use Agreement on Solar Geoengineering and first author of the WIREs article, “Solar geoengineering deployment is ungovernable in a fair, democratic and effective manner. For the last few decades, solar geoengineering has been a research topic for just a small group of scientists based largely at elite universities in the US and the UK. Now other science communities and civil society must step in and raise their voice. Governments must take control. The development of solar geoengineering technologies must be stopped.”

The **Open Letter** also highlights that betting on solar geoengineering as a potential future solution threatens “commitments to mitigation and can disincentivize governments, businesses, and societies to do their utmost to achieve decarbonization or carbon neutrality as soon as possible. The speculative possibility of future solar geoengineering risks becoming a

powerful argument for industry lobbyists, climate denialists, and some governments to delay decarbonization policies”.

In early 2021, this was one of the [reasons presented](#) by the indigenous Saami Council and environmental NGOs to stop a balloon test for a Harvard University solar geoengineering research programme. Planned for June 2021 above indigenous territory in Sweden, the test was halted after strong civil society opposition. Such tests should be banned worldwide, the group of 60 experts now argue.

The 60 leading climate scientists and governance experts also fear that without an international ban or restrictions, a few powerful countries with support from major corporations and philanthropists could engage in solar geoengineering unilaterally or in small coalitions, even when the rest of the world opposes such deployment – or has not yet had the time to assess it and its potential dangers. This threat, the group argues, requires immediate action by governments and the United Nations for an International Non-Use Agreement on Solar Geoengineering.

More precisely, the **Open Letter** calls upon governments to support five core prohibitions and measures to:

- Prohibit their national funding agencies from supporting the development of technologies for solar geoengineering, domestically and through international institutions.
- Ban outdoor experiments of solar geoengineering technologies in areas under their jurisdiction.
- Refuse patent rights for technologies for solar geoengineering, including supporting technologies such as for the retrofitting of airplanes for aerosol injections.
- Not deploy technologies for solar geoengineering if developed by third parties.
- Object to future institutionalization of planetary solar geoengineering as a policy option in relevant international institutions, including within assessments by the Intergovernmental Panel on Climate Change.

The [initiative's website](#) offers updated scientific information on various risks posed by solar geoengineering and its hypothetical technologies. For further information and updates follow @SolarGeoeng on [Twitter](#).

ENDS//

Contact:

Carol Bardi – c.costadesouza@uu.nl – WhatsApp + 31 6 51 35 62 05

For more information and interview requests with the lead author, co-authors of the WIREs article or other leading signatories, please contact Carol Bardi, the global coordinator of the initiative for an International Non-Use Agreement on Solar Geoengineering.

The initiative’s website will be launched on 17 January. On 14 January, it will be online as a soft launch.

Notes to editor

The initiative is led by Frank Biermann, Professor of Global Sustainability Governance at the Copernicus Institute of Sustainable Development, Utrecht University, The Netherlands.

The 16 scientists who co-authored the article in *WIREs Climate Change* are:

- FRANK BIERMANN, Professor of Global Sustainability Governance at the Copernicus Institute of Sustainable Development, Utrecht University, The Netherlands.
- JEROEN OOMEN, Researcher, Urban Futures Studio, Copernicus Institute of Sustainable Development, Utrecht University, The Netherlands
- AARTI GUPTA, Professor of Global Environmental Governance, Wageningen University, The Netherlands
- SALEEM H. ALI, Distinguished Professor of Energy and the Environment, University of Delaware; Member of the Scientific and Technical Advisory Panel of the Global Environment Facility, United States of America
- KEN CONCA, Professor of International Relations, School of International Service, American University, USA
- MAARTEN A. HAJER, Distinguished Professor of Urban Futures and Scientific Director, “Pathways to Sustainability” programme, Utrecht University, The Netherlands
- PRAKASH KASHWAN, Associate Professor of Political Science, Department of Political Science, University of Connecticut, United States of America
- LOUIS J. KOTZÉ, Research Professor of Law, Faculty of Law, North-West University, Potchefstroom, South Africa
- MELISSA LEACH, Professor of Anthropology and Director, Institute of Development Studies, United Kingdom
- DIRK MESSNER, Professor and President, German Environment Agency, Germany
- CHUKWUMERIE OKEREKE, Professor of Climate Governance and International Development and Director of the Centre for Climate Change and Development at the Alex-Ekwueme Federal University Ndufu-Alike, Nigeria
- ÅSA PERSSON, Research Director, Stockholm Environment Institute, and Adjunct Lecturer, Department of Thematic Studies – Environmental Change, Linköping University, Sweden

- JANEZ POTOČNIK, Co-chair, International Resource Panel, United Nations Environment Programme, and partner at SYSTEMIQ, Slovenia
- DAVID SCHLOSBERG, Professor of Environmental Politics, and Director, Sydney Environment Institute, University of Sydney, Australia
- MICHELLE SCOBIE, Lecturer in International Law and Global Environmental Governance, Institute of International Relations, The University of the West Indies, Trinidad and Tobago
- STACY D. VANDEVEER, Professor and Department Chair, Conflict Resolution, Human Security and Global Governance, McCormack Graduate School of Policy and Global Studies, University of Massachusetts Boston, United States of America

Forty-six additional senior climate scientists and governance experts back this initiative as First Signatories of the Open Letter:

- | | | |
|--|--------------------------------------|---|
| 1. Prof. Julian Agyeman,
FRSA, FRGS | 17. Prof. Anna-Katharina
Hornidge | 32. Prof. Sebastian
Oberthür |
| 2. Prof. Steven Bernstein | 18. Prof. Mike Hulme | 33. Prof. Hiroshi Ohta |
| 3. Prof. Michele Betsill | 19. Prof. Sheila Jasanoff | 34. Prof. Lennart Olsson |
| 4. Prof. Harriet Bulkeley,
FBA, FAcSS | 20. Asst. Prof. Dhanasree
Jayaram | 35. Prof. Daniel Panario |
| 5. Prof. Jennifer Clapp | 21. Prof. Jean Jouzel | 36. Prof. Matthew Paterson |
| 6. Prof. Wolfgang Cramer | 22. Prof. Patricia Kameri-
Mbote | 37. Prof. Raymond T.
Pierrehumbert, FRS |
| 7. Prof. Simon Dalby | 23. Asst. Prof. Rakhyun E.
Kim | 38. Prof. Stefan Rahmstorf |
| 8. Prof. Peter Dauvergne | 24. Prof. Tatiana
Klůvánková | 39. Prof. Eduardo S.
Brondizio |
| 9. Prof. John S. Dryzek | 25. Prof. Miriam Lang | 40. Prof. Mary Scholes |
| 10. Prof. Robyn Eckersley | 26. Prof. Hervé Le Treut | 41. Prof. Imme Scholz |
| 11. Prof. Arturo Escobar | 27. Prof. Enrique Leff | 42. Prof. Clifford Shearing |
| 12. Dr. Amitav Ghosh | 28. Prof. Philip Macnaghten | 43. Prof. Jennie C. Stephens |
| 13. Prof. Alex Godoy-
Faúndez | 29. Prof. Duncan McLaren | 44. Prof. Jack Stilgoe |
| 14. Prof. Christopher
Gordon | 30. Prof. Peter Newell | 45. Asst. Prof. Yixian Sun |
| 15. Prof. Clive Hamilton | 31. Prof. Karen O'Brien | 46. Prof. Oran Young |
| 16. Prof. Matthew
Hoffmann | | 47. Asst. Prof. Margaretha
Wewerinke-Singh |

What is solar geoengineering?

Solar geoengineering (known also as solar radiation modification or management) describes a set of hypothetical technologies to lower global temperatures by intervening in planetary climate systems. One widely debated approach is the massive spraying of aerosols in the stratosphere for instance via special airplanes or balloons. These tiny particles would scatter a small part of incoming sunlight back into space. Solar geoengineering is highly controversial, although some research groups have begun study programmes on stratospheric aerosol injection, including highly contested plans for outdoor experiments.