

Climate Interventions

Program Factsheet

→ The issue

Climate interventions are not a solution to the climate crisis nor a substitute for phasing out fossil fuels as quickly as possible.

Nonetheless, as the climate crisis intensifies, and the world fails to decarbonise at a sufficient pace, there is growing interest in powerful new technological interventions in the climate system aimed at limiting some of its worst effects. With heating trending towards 3°C - twice the 1.5°C goal - these technologies reflect a growing sense of desperation and urgency.

Stratospheric aerosol injection (SAI), also known as solar geoengineering, is the only method that might, within a handful of years, lower global temperatures by several tenths of a degree at a low direct cost. But its impacts are highly uncertain and it could introduce major new risks. Much more needs to be learned about its potential risks and benefits through well-governed research and serious public engagement.

ICFG believes deployment at this time is unacceptable for environmental, geopolitical, and ethical reasons.

→ The context

The risk of poorly or ungoverned deployment of climate interventions is becoming a critical issue. Policymakers face difficult decisions but lack the information and public input they need.

New inflows of private funding and planned tests by commercial actors and research groups underscore the urgency for governments to step in. There is growing pressure to restrict research and development, driven by legitimate concerns about environmental and geopolitical impacts and the potential for things to go wrong. At the same time, misinformation can undermine the public debate – a risk potentially exacerbated by Artificial Intelligence. The EU can lead by example by establishing guardrails and supporting responsible global research. **The European Commission has stated it is keen to engage in international efforts to assess risks and uncertainties and to support and promote governance of climate interventions.**¹

Tests and even sub-scale (less than global) deployment of SAI could theoretically move ahead in the next five years, without public oversight. This might send shock waves across the geopolitical landscape. In contrast, a scientifically robust, diplomatically coordinated global deployment would require at least a decade.

→ The potential impacts

The stakes could not be higher. Deciding to use - or not use - SAI and other climate interventions will have profound consequences for present and future generations.

Climate change affects everything: entire civilisations are under threat. The grim challenge for policy-makers is to weigh up the potential reduction of existential risks from runaway heating against the new known and unknown risks SAI could introduce, including a warming shock in case of sudden termination.² There are no risk-free options. This requires far more than just a scientific assessment: decisions on SAI will affect all human experience, environmental, political and ethical. Both climate change and climate interventions affect:

¹ [European Commission and High Representative](#), 2023; and [European Commission](#), 2023

² [Parker and Irvine](#), 2018.

- **Security and migration:** geopolitical tensions are multiplied by climate change and SRM could pose additional complexities at a time of rising instability.³
- **Sustainable development:** climate change threatens health, food security, access to water, and prosperity, yet it is unclear how climate interventions might improve or worsen developments across countries and regions.⁴
- **Justice:** procedural (who decides), distributive (who benefits), intergenerational (how to empower future generations faced with unknown challenges).⁵
- **Nature and ecosystem health:** climate change is destroying vulnerable ecosystems, yet climate interventions raise deep ethical questions about humanity's role within nature, and its approach to climate action.

Critical decisions await: on whether and how to conduct research, how to guard against risky testing, and how the world might decide on potential deployment, or rule out SAI altogether. Some would rather avoid this conversation, but a lack of governance is itself a risk. **ICFG believes the time has come for an honest, sober and inclusive discussion, and for responsible governance to be put in place. The EU can and should play a central role.**

→ Our objectives

ICFG strongly supports prioritising mitigation and responsible planetary stewardship as the cornerstones of climate action. At the same time, ICFG also wants to see European institutions take an active role in governing disruptive technologies, based on robust scientific evidence and society-wide consultations. ICFG facilitates access to research, global expert networks, and potential policy options. In the field of climate interventions, ICFG seeks to build accountable and inclusive governance that safeguards this and future generations, including:

- Strengthening transparency with an international public registry of research and funding
- Encouraging monitoring for tests in the stratosphere
- Cooperating in guiding and pursuing responsible research and preventing ungoverned deployment
- Developing scenarios informed by geopolitical and foresight analysis

ICFG may build on work already underway among EU institutions. This includes the Co-CREATE project on SRM research governance and convening discussions with researchers, policy advisors and civil society groups to jointly develop and road-test policy options.

The ICFG team is committed to a balanced and just consideration of the full range of risks, uncertainties, ethical challenges and societal values. Independent of government or corporate funding, ICFG listens and responds to diverse needs for information and deliberation.

³ [US National Intelligence Council, 2021](#), [US Department of Defense, 2021](#), [Young 2023](#).

⁴ [Honegger, Michaelowa, and Pan, 2021](#).

⁵ [Clingerman, 2018](#); [Morrow and Svoboda, 2014](#); [Táíwò and Talati, 2021](#).



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