



## ENVIRONMENTAL COMMITTEE

Topic 1: The Question of the Validity of Solar Geoengineering Experiments: Should All Nations Have Access to Controlling Global Systems?

## Committee overview

Welcome, Delegates, to FLOMUN 2026! The Environmental Committee focuses on the environmental challenges the world faces, addressing issues such as climate change, pollution, loss of biodiversity and sustainability. The purpose of this committee is to empower young individuals to speak up about ecological issues, allowing them to discuss and develop solutions together.

Issues like climate change cannot be contained by borders. On the contrary, they affect all nations equally. Thus, the Environmental Committee is highly relevant to global governance, as it addresses transnational concerns and crises. We hope that you all bring innovative ideas and have a fruitful debate.

## Background on the topic

Solar Geoengineering (also known as SG, Solar Radiation Management or SRM) is a suggested approach on how to reduce the Earth's temperatures through reflection of solar radiation back into space. It refers to several theoretical technological approaches on how to reduce the effects of climate change, such as Stratospheric Aerosol Injection (SAI), which suggests the injection of small particles into the stratosphere, the purpose of which would be to reflect some sunlight away from the Earth. Other major examples are Marine Cloud Brightening (MCB) and Cirrus Cloud Thinning (CCT).

The concept of SRM is controversial for several reasons. The first is that it treats the symptoms of climate change, and not its actual causes; it does not reduce the amount of greenhouse gases released into the atmosphere. The second is that the implementation of SRM technologies by one country has the possibility of impacting climate systems globally. It is very difficult to predict to what extent this would take place, as the Earth's climate systems are complex and the effects of such technologies on them are difficult to anticipate. This could lead to a rise in international tensions, caused by the possibly uneven distributions of SRM's effects. All of this poses the question whether all nations should have access to technologies such as SRM, which have the potential of influencing climate on a global level.

The UN believes that further research and scientific assessment of SRM is necessary prior to its implementation, as it is unclear how serious the possible downsides of its use could be. Additionally, the UN calls for a precautionary approach to SRM, and stresses the importance of the possible risks of geoengineering as a tool to manage climate change.

## Key terms and definitions

**Solar Geoengineering:** Also known as Solar Radiation Management (SRM), several suggested approaches for the reduction of the Earth's temperatures through the reflection of solar radiation back into space.

**Greenhouse Gases:** Gases in the Earth's atmosphere that trap heat near the surface of the planet, elevating its temperatures.

**Global Warming:** An increase in the Earth's atmosphere's temperature, usually due to the effects of greenhouse gases.

**Solar Radiation:** Usually called sunlight, and is the energy emitted by the sun.

**Stratospheric Aerosol Injection (SAI):** A Solar Geoengineering technique that involves the injection of microparticles into the earth's atmosphere, which then scatter solar radiation back into space.

**Marine Cloud Brightening (MCB):** A suggested Solar Geoengineering technique that involves the enhancing of cloud reflectivity by making them brighter.

**Cirrus Cloud Thinning (CCT):** The thinning of Cirrus clouds as a potential Solar Geoengineering technique.

## Relevant UN bodies and resolutions

### UN Bodies

- **The Intergovernmental Panel on Climate Change (IPCC)** - A specific intergovernmental panel that addresses the effects of climate change. It acknowledges SRM as a possible tactic to reduce the effects of climate change and calls for the creation of a coherent framework to better assess SRM techniques.
- **The UN Environment Program (UNEP)** - The UN's leading authority on the Environment. Recognises SRM as a speculative short-term solution to the impacts of climate change, but acknowledges the risks of its use.
- **The UN Environmental Assembly and UN General Assembly** - Have both called for more research into Solar Engineering and its possible effects.

### Conventions/Treaties

- There are no specific international treaties governing SRM, however, it is mentioned in other international treaties, such as **The Convention on Biological Diversity (CBD)**, which addresses it in its COP 10 decision X/33.

Given the minimal knowledge on the possible negative effects of SRM, UN initiatives addressing it are currently focusing on deepening scientific understanding of the issue, rather than immediate deployment.

One of such suggested initiatives includes the formation of a scientifically-informed forum, which would have the aim of combining political and scientific organisations in efforts to create principles, standards and regulations on SRM. This would help build consensus about SRM on a global level, allowing for a clearer understanding of the issue internationally.

Furthermore, the UN urges for a scientific review process on SRM, which would include indoor and small-scale outdoor testing of SRM techniques. It would also include a large range of perspectives, including members of different communities to gain a deeper insight into the possible effects of SRM.

Lastly, the UN suggests a precautionary approach to SRM, due to uncertainty in the implications of the deployment of SRM.

## Major actors and their relevance

### Countries

- **USA** - The US Environmental Protection Agency (EPA) states that the US congress has not passed any laws on SRM, yet several statutes require individuals to submit a report prior to engaging in weather modification activities. These weather modification activities are not regulated, however are tracked by the National Oceanic and Atmospheric Administration (NOAA). NGOs within the US (such as Make Sunsets) are already utilising SRM to try and regulate the rise of national temperatures due to climate change. Despite this, some individual states have banned specific methods of weather modification.
- **China** - This country is known to be exploring the use of weather modification to reduce the impacts of climate change. China's efforts include investments into cloud seeding as well as SRM, considering both of these as possible solutions to climate induced weather changes.
- **Australia** - Known for its exploration of MCB in the ocean, specifically the use of MCB as a Solar Geoengineering method used to protect the Great Barrier Reef. However, the country recognises the possible risks of such an approach, and thus it is not a given that they will deploy them.

### Organisations

- **SilverLining** - An organisation that launched research into SAI in 2020, with the goal of improving understanding of the methods and its possible stratospheric impacts, as well as supporting the possible potential of SAI.
- **Friends of the Earth (FoE)** - Have actively campaigned against the use of geoengineering, given its potential side effects and the risks these pose to the environment.
- **Action Group on Erosion, Technology and Climate (ETC group)** - Opposes the use of all Geoengineering and identifies it as a "false solution" to climate change overall. This suggests they do not support SRM given its failure to address the actual causes of climate change.
- **Make Sunsets** - A US based company that uses Geoengineering for "cooling credits", the group launches reflective clouds into the stratosphere. This is very controversial, as scientists have repeatedly stressed the lack of knowledge present on the impacts of Solar Geoengineering.

## Guiding questions

- 1. Should countries facing extreme climate change induced weather conditions be permitted to use SRM to attempt to mitigate them?
- 2. What are the possible disadvantages of delaying the implementation of SRM out of precaution?

- 3. What are some possible reasons that some states should have less access to SRM techniques than others?
- 4. How could the deployment of SRM techniques lead to international tensions?
- 5. Do the potential negative effects of SRM outweigh its possible benefits?

## Works cited

Brief of the Scientific Advisory Board on Solar Radiation Modification.

"Climate & Geoengineering." ETC Group, 2025, [www.etcgroup.org/issues/climate-geoengineering](http://www.etcgroup.org/issues/climate-geoengineering). Accessed 15 Feb. 2026.

"FAQ." Make Sunsets, 2025, [makesunsets.com/pages/new-faq](http://makesunsets.com/pages/new-faq).

"Geoengineering." Friends of the Earth, 25 Aug. 2017, [foe.org/projects/geoengineering/](http://foe.org/projects/geoengineering/).

"Government Action | US EPA." US EPA, 24 June 2025, [www.epa.gov/geoengineering/government-action](http://www.epa.gov/geoengineering/government-action).

Lima, et al. IPCC Expert Meeting on Geoengineering Meeting Report Edited By. 2011.

"Solar Geoengineering and Climate Change." Congress.gov, 2025, [www.congress.gov/crs-product/R47551](http://www.congress.gov/crs-product/R47551).

"Solar Radiation Modification." United Nations University, 2025, [unu.edu/cpr/brief/solar-radiation-modification](http://unu.edu/cpr/brief/solar-radiation-modification).

Stratospheric Aerosol Research Program — SilverLining. "SilverLining." SilverLining, 2019, [www.silverlining.ngo/stratospheric-aerosol-research-program](http://www.silverlining.ngo/stratospheric-aerosol-research-program). Accessed 15 Feb. 2026.

Unit, Biosafety. "Climate-Related Geoengineering and Biodiversity." Www.cbd.int, 23 Mar. 2017, [www.cbd.int/climate/geoengineering](http://www.cbd.int/climate/geoengineering).

---. "COP Decision." Wwww.cbd.int, [www.cbd.int/decision/cop?id=12299](http://www.cbd.int/decision/cop?id=12299).

"What Is Solar Geoengineering." Solar Geoengineering Non-Use Agreement, [www.solargeoeng.org/what-is-solar-geoengineering/](http://www.solargeoeng.org/what-is-solar-geoengineering/).