

SOLAR CLIMATE INTERVENTION: OPTIONS FOR INTERNATIONAL ASSESSMENT AND DECISION-MAKING



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The international response to climate change has been, and may continue to be, inadequate to ensure a safe global climate.

While rapidly reducing carbon emissions must remain our highest priority, there is increased interest in exploring forms of climate intervention (geoengineering). This includes the potential use of rapid interventions such as **solar climate intervention (SCI)**—increasing the reflection of sunlight from the atmosphere—to avoid dangerous or abrupt climate change.

Such interventions would have to be implemented as safely as possible, which raises the question: how can we adequately assess and govern these technologies?

Assessing “Two Safeties”

Any exploration of SCI must consider “two safeties”:

1. The safety of the global climate, and
2. The safety of the potential use of SCI

Decision-making should consider these two safeties together, instead of only one or the other in isolation. Even though they are somewhat distinct, there is likely significant overlap in the technical knowledge required to address both.

A Cooperative, Science-Based Approach

Assuming a group of states is interested in an approach to the potential use of SCI that is both cooperative and based in science, the desired approach should:

1. Provide for expert assessment of available scientific and technological research, and
2. Provide for international decision-making, based on this expert scientific assessment, on whether and under what conditions to use one or more SCI technologies

After surveying existing international institutions, it is clear that no existing international body is ideally suited to perform both functions: assessment and decision-making. This leaves room for multiple potential approaches:

1. Separate the functions, which may be adequately managed by existing international bodies.
2. Evolve the abilities of suitable international bodies to perform both functions.

This survey did not look beyond the capabilities of existing institutions, and did not consider the option of creating a new, ad hoc forum or process, specifically designed to address SCI.