

# CLIMATE INTERVENTION: THE CASE FOR RESEARCH



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Climate change policy needs to be able to anticipate and plan for the possibility of rapidly escalating or abrupt changes that dramatically increase risks to the environment, the economy, and public safety.

International climate policy has focused on limiting future greenhouse gas emissions. While this is essential, it may act too slowly to address potential near-term hazards. We may need more rapid "climate interventions" with the potential to substantially reduce warming within a decade or less to ensure safety for present and future generations. To consider this, we need information to inform decision-making.

## Critical Need To Pursue Research In Climate Intervention

As temperatures rise, so do the near-term risks that the climate system will cross critical thresholds, resulting in abrupt and possibly irreversible changes.

In order to promote safety and effective decision-making, we need to better understand both near-term catastrophic risks resulting from climate warming, and the risks, benefits, and feasibility of potential rapid interventions to reduce warming.

Research is required to fill enormous gaps in existing knowledge to support science-based decision-making on climate response.

## Key Goals For Climate Intervention Research

In order to assess and make science-based decisions about possible climate interventions, governments, stakeholders, and the public need the best possible information about:

- The risks of abrupt changes.
- The effectiveness, feasibility, and safety of potential interventions.
- The comparative risks and benefits of intervention versus no intervention and of different types of interventions.

Research on abrupt changes and climate interventions will have important positive societal impacts:

- Promote climate safety by improving our understanding of the likelihood of abrupt changes and our ability to respond safely and effectively.
- Enable more inclusive and democratic decision-making regarding possible interventions.
- Promote social justice by identifying additional options to reduce the risks of climate change for vulnerable groups and countries.
- Promote responsible decision-making between actors and reduce the risk of geopolitical tensions over climate interventions caused by uncertainty or mistakes.

Read the paper at [C2ES here](#).