

an initiative of CARNEGIE COUNCIL for Ethics in COUNCIL International Affairs



### Dear Friend,

The terrible images of recent extreme weather events have left no doubts as to the severe consequences of climate change. Recent advances in climate modelling are showing with greater clarity how these events are directly linked to anthropogenic emissions of greenhouse gases. New research is warning the costs of overshooting international temperature goals may be more severe than previously imagined.

As the magnitude of the challenge becomes clearer, we expect the conversation around large-scale carbon removal to switch into a new gear during the second half of this year – in particular after the publications of the IPCC Special Report on 1.5°C and the intergovernmental discussions at the UN Climate Change

Conference (UNFCCC COP24) in Katowice, Poland, in December. This includes its research, testing and potential deployment, as well as the need for appropriate governance at every stage.

Over recent months, our C2G2 team has talked with civil society groups, foundations, the private sector, UN entities and national governments about what this could entail. How should large-scale carbon removal be governed, nationally and internationally, to ensure just outcomes, in line with the Sustainable Development Goals? What more research needs to be done to understand and manage its risks and benefits?

The emerging scale of the challenge is also prompting a renewed interest in solar geoengineering, to hedge against the risks of exceeding the Paris temperature goals, and to possibly buy more time to tackle underlying causes.

In addition to continuing our work with the Convention on Biological Diversity (CBD), we have expanded our activities with various intergovernmental processes. We expect that the UN Environment Assembly (UNEA) will address some of these issues at its March 2019 session. We have started to look at the challenges posed to governance in the Arctic region, and we will also be intensifying our efforts to address governance issues within the UNFCCC process as well.

We cannot predict where these conversations will go, nor do we have an opinion on how they should go. But the risks of not talking about the governance of these technologies clearly outweigh the risks of tackling them head-on. So let us begin, before events overtake our capacity to respond.

*—Janos Pasztor, Executive Director, C2G2* 

## New from C2G2

### Governments' increasing interest in the governance of geoengineering

C2G2 spent two days working with Permanent Representatives to the UN Environment Assembly (UNEA), which is the world's highest-level decisionmaking body on the environment, on the need to design effective governance for these emerging technologies.

### Can solar geoengineering be democratically governed?

In a guest post, Jesse Reynolds, Joshua Horton and David W. Keith reject the argument that solar geoengineering is inherently incompatible with democracy. At the same time, they warn that we must think carefully about how to design norms, rules, and institutions in line with democratic values.

### What we don't know about geoengineering and biodiversity

As communities, ecosystems and economies reel from the impacts of extreme weather events considering whether or not geoengineering has a role to play in protecting biodiversity has become an increasingly hot topic. There are still many questions to be answered, but the conversation is now well underway.

### A living guide to geoengineering terms

Geoengineering terminology brings with it a host of values and assumptions, often political, some with significant ramifications for governance. By alerting constituencies to these complexities, we hope to lessen the very real possibility of accidental misunderstandings.

## **Publications**

**Carbon Removal and Solar Geoengineering: Potential implications for delivery of the Sustainable Development Goals** (landing page and full report)

Technical Briefing Paper: Knowledge gaps on climate-related geoengineering in relation to the Convention on Biological Diversity (CBD) (pdf)

## C2G2 Events

# Side-event on Climate-related Geoengineering: Research, Governance and the 2050 vision (SBSTTA-22)

43 international experts (including SBSTTA Members and Observers) explored new insights into transdisciplinary knowledge and governance of climate-related geoengineering.

### Vatican Seminar on the Governance of Geoengineering

In June 2015, the Pope described climate as "a common good, belonging to all and meant for all". What does this mean for the Vatican's stance on the potential use of geoengineering technologies?

## From C2G2 Partners

### FCEA: Power and Responsibility in a Broken World

A debate continues over whether geoengineering might not be better called 'climate restoration' or even 'climate repair'. Recent examples include the Climate Restoration Foundation's advocacy for marine cloud brightening, ocean fertilisation, and mechanical thickening of Arctic sea ice.

### FCEA: When the Humanities Are Useful in Teaching Climate Engineering

The information gap between specialists and the public is a challenging issue for climate engineering researchers. The undergraduate humanities classroom is an important site for more education.

### **Climate Interactive: How to Run the World Climate Simulation with Younger Children**

Climate Interactive finds that children love the drama of negotiating, the visual delight of graph lines changing, and the solutions-oriented approach to learning about climate change.

## **C2G2 Vacancies**

### Senior Advisor for Resource Development (2 years)



C2G2, an initiative of **Carnegie Council for Ethics in International Affairs**, seeks to catalyse the creation of effective governance for climate geoengineering technologies by shifting the conversation from the scientific and research community to the global policy-making arena, and by encouraging a broader, society-wide discussion about the risks, potential benefits, ethical and governance challenges raised by climate geoengineering. The C2G2 initiative is not for or against the research, testing or potential use of climate geoengineering technologies. That is a choice for society to make.



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Our mailing address is: Carnegie Council for Ethics in International Affairs 170 E 64th St New York, NY 10065-7478

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