



Documentation

Transatlantic Policy Dialogue: Climate engineering science and governance

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New York University Campus

Background

Climate engineering (CE), also known as geoengineering, encompasses a set of proposed ideas that aim to remove greenhouse gases from the atmosphere or to reflect sunlight away from the Earth to counter some of the effects of climate change. In the past decade, CE has garnered prominent attention in scientific and policy circles and environmental discourse in Europe, North America and other regions and countries. In the United States, the National Academy of Sciences is set to present its report on geoengineering by the end of the year. At the international level, the IPCC recently included climate engineering in the summary for policy makers of its working group I and working group III reports in its Fifth Assessment, as well as including extensive sections on the topic in all three of its full working group reports.

In spite of the numerous initiatives around the topic in different countries, transatlantic initiatives have been more limited thus far. The European Commission funded project “European Trans-disciplinary Assessment of Climate Engineering” (EuTRACE) and the Forum for Climate Engineering Assessment partnered up to co-host a lunch event to exchange views between members of the government, academic and non-governmental sectors in Europe and the United States.

Key Messages

State of the conversation in the United States: U.S. scientists have been at the forefront of climate geoengineering research and advocacy for a broader research agenda. A limited number of scientists and academics from a fairly large range of disciplines have focused on CE in the country since the 1965 Report of the Environmental Pollution panel of the President’s Science Advisory Committee. The latest effort is to be published at the end of 2014 by the National Academy of Science.

In the current state of affairs in the United States, political actors and decision makers are unwilling to voice their opinions and questions around climate change (including climate engineering) because of the strong polarization between Democrats and Republicans. While Republicans still represent in large part constituencies that are sceptical of climate change, Democrats are cautious of any possible backlash to any signal that they are not fully committed to mitigation only. Getting closer to the mid-term elections, this caution on both sides to restrain from political statements on the issue will likely become stronger.

Building blocks of CE governance are also in place in the US: A number of federal laws are already in place that would be pertinent to geoengineering deployment, including the Safe Drinking Water Act, the Clean Air Act, the Marine Protection, Research, and Sanctuaries Act and the National Environmental Policy Act.

A broad-scale CE program is not likely to proceed in the US under current circumstances: On the one hand, the US has been condemned by the world community for cutting targets and timetables in UNFCCC

negotiations, for not joining the Kyoto Protocol, and now for its fracking activity. On the other hand CE would be construed as seeking a quick technological fix and flouting its obligation to the world community to take the lead in mitigating emissions. Crucially, there is a strong ideological aversion to CE from all political directions.

CE needs to be discussed at all levels and by all actors in an integrated form with the broader discussion on climate change. The discussion is disjointed. It is not a matter of "climate engineering or no climate engineering", it is a matter of "climate change with CE and without".

Highly theoretical and academic approaches to discuss CE run the risk to be dismissive of the work and opinion of people on the ground. There is a need to conjoin the policy, the theory and the science with the grassroots level. This is important to establish ownership and agreement, and to get the best input possible. It is also important to frame the issue in terms of very specific impacts (to the extent possible), not only regional or global average impacts, in order to relate it better to those on the ground.

Discussion around CE needs to be as specific as possible, with specific emission scenarios at hand, the worst-case and best-case scenarios, as well as generally more realistic scenarios (e.g., ramp-up rather than sudden full deployment), and to explore what would happen in terms of CE. This is the most realistic way to proceed.

Policy approaches in the US and the EU seem to vary. While in the US there seems to be an approach based on a practical body of laws, policy in the EU around CE seems to revolve around principles. There is also a different agenda and different risk perception in the two regions.

The conditions in which decisions on CE are taken (and the actors that will take it) will change in the future. Because of the ongoing and possible future decline in power of the United States, powerful emerging countries will play important roles in the future. This is a "classic case of international relations theory", according Lee Lane, with a diffusion of power leading to the expectation of "low dose" and geographically limited initial implementation.

"Mitigation is the only response" – this seemed to be the sentiment of many who participated from both sides of the Atlantic.

Some key questions raised

- Where should things be going for transatlantic discussions in this context?
- Are there any specific CE techniques that present more risks in terms of use as weapons? And are there any techniques that can be ruled out for use as weapons (so that there is less need for armed forces attention on them)?