

EVENT REPORT

Summary of the C2G2 workshop session at the Climate Engineering Conference (CEC17)

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Summary

On 10 October 2017, the C2G2 convened a World Café style workshop session during the Climate Engineering Conference (CEC17)¹ in Berlin, Germany. The session brought together over 60 conference participants to discuss *Achieving the SDGs: Governing Geoengineering in a post-Paris world*². Discussions were stimulated by short presentations provided by leading voices from the international climate change and SDG policy community. This report summarizes key points raised in the discussions, under four themes, with key lessons including:

A. Research Governance

- Different governance approaches may be needed for different types of research;
- Need to agree common research principles of a Code of Conduct;
- Need to better understand who will be impacted and how;
- Importance of making sense of existing and emerging transdisciplinary research;
- Recognize research knowledge as a global public good;
- Need more transdisciplinary research and collaboration across global north and south;

B. Communication, Engagement and Transparency

- Importance of society-wide engagement and transparency;
- Public communication to facilitate greater society-wide engagement will be important;
- Need for impartial, fact-based communication;

C. Designing effective governance

- Importance of how (and by who) governance is controlled;
- Importance of mutual governance, under control of democratic institutions;
- Need for flexible or adaptive governance;
- Importance of equity and ethical boundaries;

D. The role of institutions

- Draw lessons from comparable global governance arrangements;
- Multi-level governance dynamics need to be considered (local, national, international);
- Explore role of existing national legislation
- Aligning governance between countries a key challenge, where UN has key role to play.

¹ <http://www.ce-conference.org>

² <http://www.ce-conference.org/session/parallel-session-14-achieving-the-sdgs-governing-geoengineering-post-paris-world>

Given the limitations of time (the workshop was just 90 minutes) and the varied background knowledge of participants, the discussions generally remained at a high level. However, the points raised throughout the discussion confirmed C2G2 is on the right track in pursuit of its three priorities³ and this is the first of many such conversations that will be convened by C2G2 globally in the months and years ahead.

C2G2 is grateful to the conference hosts at The Institute for Advanced Sustainability Studies (IASS)⁴ and to all our speakers and workshop participants who made this such a stimulating and worthwhile conversation.

Introduction

One of the challenges C2G2 seeks to address through its activities, is the need to broaden discussion about geoengineering governance beyond the research community and into the international policy arena. To this end, in early October 2017 the C2G2 team joined over 250 participants at the Climate Engineering Conference (CEC17) in Berlin, Germany to contribute to (and learn about) the latest developments in climate engineering (or “geoengineering”) with many of the world’s leading experts in the field.

As such gatherings are traditionally (and necessarily) dominated by researchers and academics, C2G2 invited leaders from the international policy community to provide fresh insights to stimulate and engage participants in a discussion on geoengineering governance in the context of delivering the Paris Agreement⁵ and the UN Sustainable Development Goals (SDGs)⁶. Joining them were a diverse global group of around 60 participants from universities and scientific institutions, together with representatives from non-governmental, civil-society, government and inter-governmental organisations.

The discussion - moderated by C2G2’s Executive Director, Janos Pasztor - kicked-off with brief context-setting presentations from authoritative voices in the international climate and SDG policy community, including: Wenjiang Zhang, Assistant Secretary General of the World Meteorological Organisation; Michelle Gyles-McDonnough, Director of the UN Secretary General’s Sustainable Development Unit; David Cooper, Deputy Executive Secretary of the Secretariat of the Convention on Biological Diversity; and Youba Sokona, Adviser at the South Centre.

Despite the limits of time and varying levels of understanding of geoengineering, the discussions that ensued were often insightful and nuanced, throwing up some interesting and important (if not altogether unexpected) themes. The following pages summarize the key points noted on participants’ note cards and as summarized by the workshop moderator during the plenaries.

A. Research Governance

Firstly, the topic of research and how it is governed featured prominently in the discussion. Numerous participants suggested there is a need to distinguish and prioritize different approaches to governance depending on the type (e.g. lab-based, models, outdoor trials) and scale (i.e. small or large) of research.

³ <https://www.c2g2.net/c2g2-priorities/>

⁴ <http://www.iass-potsdam.de/en>

⁵ http://unfccc.int/paris_agreement/items/9485.php

⁶ <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Many emphasized the importance of agreeing on some kind of research principles or Code of Conduct (e.g. the Code under development by University of Calgary⁷).

Both broad categories of geoengineering – namely, Solar Radiation Management (SRM)⁸ and Carbon Dioxide Removal (CDR)⁹ – featured throughout the conversations and the impacts of both (albeit based on limited knowledge, due to the paucity of research) were reflected on in the context of delivering global climate change and sustainable development goals. In particular, many noted the need to more fully understand who might be impacted by different types of geoengineering and how. Will there be local or regional variation in impacts from different technologies? What will be the impact on food security? Energy security? Biodiversity? Will vulnerable communities be at greater risk if geoengineering technologies are deployed? Or from climate impacts if they are not deployed? The conclusions which emerged pointed to the need for more transdisciplinary research (i.e. natural and social scientists) to provide clearer models for understanding risk and informing policy-makers.

While several noted that research into various forms of SRM is already underway (e.g. outdoor trials planned by Harvard University's Scopex¹⁰), many emphasized that considerably more needs to be understood about under what conditions or scenarios (if at all) such technologies could or should be considered for deployment. While largely cautious, views on this discussion ranged from 'outright ban' to 'deploy when ready' with various shades of 'further research or testing required' in between.

Many noted that CDR generally enjoy greater levels of awareness and acceptance among the public than SRM, although many emphasized that much more needs to be understood about the wider impacts and feasibility of different technologies and approaches in different contexts. For example, in some countries Carbon Capture and Storage (CCS) is politically unpopular and in others, large-scale bioenergy crop production may pose significant threats to biodiversity, food or energy security.

The importance of making sense of existing and emerging research was a theme raised by many participants. Several highlighted the importance of compiling and synthesizing transdisciplinary knowledge from existing and emerging research across disciplines (e.g. legal frameworks for governance, cultural or political assessments, socio-economic impacts) and the importance of translating such knowledge to inform decision-makers.

On the issue of research funding, several noted an imbalance in the funding needed to conduct research and many highlighted the importance of funding for transdisciplinary research (e.g. from funders such as Future Earth¹¹) and the need for funding bodies to commit to ethical checks and balances before supporting research.

Many emphasized the importance of recognizing knowledge as global public good and the importance of international cooperation between researchers from the global north and south to foster greater transparency and alignment of efforts.

B. Communication, Engagement and Transparency

⁷ http://www.ce-conference.org/system/files/documents/revise_code_of_conduct_for_geoengineering_research_2017.pdf

⁸ http://www.ce-conference.org/system/files/documents/online_iass_factsheet_02_2017_en_171002.pdf

⁹ http://www.ce-conference.org/system/files/documents/online_iass_factsheet_01_2017_en_171002.pdf

¹⁰ <https://projects.iq.harvard.edu/keutschgroup/scopex>

¹¹ <http://www.futureearth.org>

Secondly, the issues of communication, engagement and transparency featured strongly across many discussions along with the need for appropriate monitoring and reporting architecture as part of a framework to ensure public accountability for any research or deployment of geoengineering in future. The issue of transparency and accountability was closely aligned with discussions around who should be engaged and how research and decision-making should be communicated. The importance of public communication to facilitate greater society-wide engagement featured throughout the discussions. In particular the need to involve low and middle-income countries and a broad global set of stakeholders reflecting the complex and multifaceted implications of potential geoengineering deployment. Conversations explored who are the key audiences that need to be reached? And how should they be engaged? There was general agreement that due to the complexity and potentially polarizing nature of discussion around geoengineering, it would be important to facilitate constructive, fact-based public conversations, tailoring information to specific audiences with the media having an important role to play in this.

C. Designing effective governance

Thirdly, discussions also explored what important elements should be considered in the design of effective governance arrangements. The conversations explored different governance forms including: bottom-up self-governance approaches, top-down, multi-lateral frameworks and various hi-bred forms such as global goals with local customization (similar to the approach adopted in the Paris Agreement on Climate Change). The issue of who controls the governance of geoengineering research or deployment was a hot topic of discussion, with many emphasizing the importance that governance be mutual (across countries) and under the control of democratically accountable institutions. Many voiced concern that narrow national self-interest may over-ride any sense of global responsibility (as has been evident with global climate change mitigation efforts) and that there consequently would need to be some kind of mechanism to prevent unilateral deployment of geoengineering (e.g. similar to a UN security council veto).

Another important area of discussion was the need for flexible or adaptive governance acknowledging that different technologies will likely require different governance responses. A strong theme that emerged was that a 'one size fits all' approach was unlikely to work. Elaborating this point further, many suggested that some kind of flexible framework could be considered, setting global priorities while at the same time allowing flexibility to accommodate adaptive action which may be needed in different contexts and at different times. Given the potential (and largely unknown) systemic impacts of geoengineering deployment, several people highlighted the implications for delivering sustainable development across different regions could vary considerably and that transboundary impacts will make effective identification of risk (and attribution of liability) highly challenging. For this reason, the importance of equity and establishing ethical boundaries, respecting the UN principle to 'leave no-one behind' was strongly emphasized by many.

D. The role of institutions

Fourthly, discussions also explored the issue of who should be involved and what roles different institutions might play. Many suggested a useful starting point would be to draw historical lessons from global attempts to govern nuclear proliferation, greenhouse gas emissions or ozone depleting substances. Others noted that early efforts through the London Convention/Protocol¹² and the Convention on Biological

¹² <http://www.imo.org/en/OurWork/Environment/LCLP/EmergingIssues/Pages/default.aspx>

Diversity (CBD)¹³ will serve as important stepping stones to guide development of more comprehensive global governance arrangements.

Several conversations noted the multi-level nature of governance (i.e. local, subnational, national, regional, international) and the importance that this be taken account of when designing any geoengineering governance regime. At a national level, discussions explored what role existing domestic legislation and governance arrangements might play in a global governance regime and asked how geoengineering proposed in countries' Nationally Determined Contributions (NDCs)¹⁴ under the United Nations Framework Convention on Climate Change (UNFCCC) might be implemented. The issue of 'unintentional' geoengineering was also raised, where the cumulative impacts of local interventions (e.g. albedo modification from urban surface brightening or CDR through land-use changes) although not deliberate under any kind of geoengineering mandate, could in practice precipitate similar effects.

Aligning governance between countries was a key issue of discussion and many conversations agreed that some sort of international coalition would be necessary and that the UN would likely have a key role to play (with a few exceptions who were skeptical of its capacity to deliver). Various people suggested that dialogue under the CBD, UNFCCC and other agencies should be aligned in order to harmonize efforts to develop effective governance under the UN.

¹³ <https://www.cbd.int/climate/geoengineering/>

¹⁴ <http://unfccc.int/focus/items/10240.php>