FORUM *for*
CLIMATE ENGINEERING
ASSESSMENT

2nd MEETING
ACADEMIC WORKING GROUP on the INTERNATIONAL GOVERNANCE of CLIMATE ENGINEERING

Meeting Report

Miranda Boettcher, IASS, &
Jane Flegal, University of California at Berkeley

for the

Forum for Climate Engineering Assessment
American University
October, 2016

SCHOOL *of* INTERNATIONAL SERVICE
AMERICAN UNIVERSITY • WASHINGTON, DC

FCEA Academic Working Group II: Meeting Report

Table of Contents

Introduction 2

Main points of discussion 2

1. Why us, why now? 3

2. Govern what? 3

3. Why govern? 4

4. How govern? 4

Outcomes 5

Next steps 5

Appendix A: Participants 6

Appendix B: Agenda 7

Introduction

The Academic Working Group (AWG) on International Governance of Climate Engineering is an international group of senior academics who have been assembled to formulate perspectives on the international governance of climate engineering research and potential deployment, with a focus on proposed solar radiation management (SRM) technologies. The AWG was convened by the Forum for Climate Engineering Assessment.

The group has been tasked with:

1. Assessing the existing SRM governance conversation;
2. Identifying key debates and open questions;
3. Providing a fresh, authoritative analysis of governance pathways; and
4. Producing crisp, policy-relevant governance recommendations.

The first meeting of the AWG took place March 6-9, 2016 at the School of International Service, American University in Washington, DC and was focused on providing the working group members with a high-level introduction to the SRM conversation. More details about the meeting can be found here.

The second meeting of the AWG took place September 22-24, 2016 at the Pocantico Meeting Center of the Rockefeller Brothers Fund in Tarrytown, New York. As is the case with all materials resulting from meetings held at The Pocantico Center, the views expressed in this report are not necessarily those of the Rockefeller Brothers Fund, its trustees, or its staff.

The meeting was principally concerned with finalizing the organization and crafting of the high-level content of the working group's joint report. The following report details the main points of discussion at the second AWG meeting. It then outlines the main outcomes from the event and indicates the groups' next steps.

Main points of discussion

The AWG members came together with several external expert participants (see Appendix A for a list of participants) for two and a half days of discussions (see agenda in Appendix B). The meeting served both as an opportunity to provide an update on the work the individual working group members had undertaken since the initial meeting in March, and to begin structuring and synthesizing the group's joint report. The discussions highlighted several key issues which revolve around 1) the context into which the AWG's recommendations on SRM governance will emerge; 2) what exactly is to be governed; 3) why and; 4) how.

1. Why us, why now?

In the process of considering how to introduce and frame the AWG report, the group contemplated how their contribution might fit with existing work on SRM, and within the context of climate change science and policy more broadly. Some members of the group wondered whether their recommendations would be perceived as authoritative, given that many are relative new-comers to the issue of SRM. While some suspected that the group's "outsider" status could negatively affect their authority, others believed it was more likely to be beneficial, as their recent introduction to the field would allow the AWG to provide innovative, impartial governance recommendations. Additionally, it was emphasized that the AWG is comprised of a heterogeneous range of members with a broad variety of governance expertise, and that this group's engagement on these questions can work to "open up" the existing SRM governance discussion to a wider set of issues and concerns. Any discussions of SRM and its governance will benefit from the articulation and contemplation of a plurality of perspectives, and this group can play an important role in this process.

The AWG also discussed the importance of identifying the audience for their report. The group noted that many previous reports on SRM governance addressed a range of audiences, including scientists, academics, publics, government agencies and non-governmental organizations. The AWG members decided to develop a concise report targeted specifically at policymakers.

Related to their decision to target a policymaking audience, the group chose to move beyond the development of a list of governance principles, and to make recommendations for the operationalization of those principles in policy terms. This specificity is intended to inform the development of national, regional and international SRM governance mechanisms.

The AWG explicitly discussed the implications of any conversation about SRM governance in the wake of the Paris Agreement, including assertions by some experts outside of the working group that the perceived difficulty of achieving the 1.5 degree Celsius target could potentially lead to the consideration of SRM by policymakers. However, the AWG decided to remain agnostic about the need for SRM research or deployment at this juncture, and focus instead on making recommendations emphasizing the need for governance.

2. Govern what?

The next set of issues discussed was related to the object of governance: What exactly is it that the AWG is developing recommendations to govern? The group discussed the merits of focusing on developing recommendations for the governance of SRM research in the short- and medium- term, as compared to incorporating recommendations for the governance of potential future deployment of SRM in the longer-term. Issues that arose included the linkages between the governance of research and deployment – i.e. that the governance of research in the near term could potentially have enabling or restrictive effects on SRM

research and perhaps indirectly on the likelihood and type of deployment in the future. The group discussed that distinguishing between research and deployment is difficult; especially given concerns about the slippery slope from research to deployment and the potential for "lock-in," and that some elements of a governance framework will, at the very least, have implications for both potential research and deployment.

To deal with these issues, the AWG discussed developing short-, medium- and long-term policy recommendations along an envisaged timeline of SRM research and development: The group plans to develop more concrete recommendations for research governance in the short- and medium-term, and more general recommendations for the anticipatory governance of potential future deployment, to ensure the adaptability of the governance recommendations to possible future developments.

3. Why govern?

Before they began to discuss how SRM could be governed, the members of the AWG discussed the range of reasons which have been put forward for why SRM should be governed. The goals of governance are key for understanding what sort of governance is needed. Several different rationales for why governance of SRM is necessary were discussed, including:

- Regulatory logic: The argument that SRM governance is needed to reduce the risk of moral hazard and to prevent "rogue actions" by researchers and potential deployers.
- Enabling logic: The argument that governance is needed to legitimize and enable research to create knowledge about SRM, which may be needed to make informed decisions in the future.
- Avoiding abdication logic: The argument that governance is needed to prevent vested interests from capturing SRM.
- Logic of public oversight: The argument that governance is needed to enable (democratic) public oversight and deliberative decision making on SRM research and potential deployment.

Although the AWG plans to take these rationales into consideration when developing governance recommendations, the group settled on one unifying rationale for the development of SRM governance that will be emphasized in the report; namely, that as research is taking place in the space, and is likely to continue to do so, governance is required.

4. How govern?

Rather than "reinventing the wheel" when it comes to answering the question as to how to govern SRM research and potential deployment, the AWG discussed drawing upon basic principles of governance outlined in existing literature, and using them as the foundation for developing concrete, context-specific governance recommendations. The group plans to do this by "operationalizing" a range of governance principles such as transparency, public participation, equitability, accountability, adaptiveness and efficiency, by developing

concrete examples of how each of these principles could be put into practice in differing national, regional and international contexts.

Outcomes

It was decided that the AWG joint report will be specifically targeted at the broad policy community. It will focus on providing innovative, authoritative insights from governance experts who are relatively new to the climate engineering discussion. The report will attempt to close gaps identified in previous reports by translating general governance principles (e.g., transparency and public participation) into specific recommendations for SRM governance policy at national, regional and international levels. These recommendations will be placed on an envisaged timeline of SRM research and development, with more concrete recommendations for research governance in the short- and medium-term, and more general recommendations for the anticipatory governance of potential future deployment in the long term. The group will focus on making recommendations for SRM governance without advocating research, development or deployment of the technologies themselves.

Next steps

Small working groups have been tasked with developing sections of the AWG report text, including the operationalization of governance principles and the development of concrete policy recommendations. These will be incorporated into a draft report skeleton, and further developed by a smaller report-writing team. The resulting draft will be shared with the wider AWG members before the group meets again February 8 -11, 2017 in Berkeley, California, USA.

Appendix A: Participants

Academic Working Group

Netra Chhetri, PhD, Senior Sustainability Scientist, Center for Science, Policy and Outcomes at Arizona State University, U.S.
Dan Chong, PhD, Arthur Vining Davis Fellow and Assistant Professor, Rollins College, U.S.
Ken Conca, PhD, Professor, School of International Service, American University, U.S.
Richard Falk, PhD, Fellow, Orfalea Center for Global & International Studies, and Albert G. Professor of International Law and Practice Emeritus at Princeton, U.S.
Alexander Gillespie, PhD, Professor, Faculty of Law, University of Waikato, New Zealand
Arti Gupta, PhD, Associate Professor, Wageningen UR, Netherlands
Sikina Jinnah, PhD, Associate Professor, UC Santa Cruz, U.S.
Myanna Lahsen, PhD, Senior Researcher, Center for Earth System Science, The Brazilian Institute for Space Research, Brazil
Andrew Light, PhD, Director of Institute for Philosophy and Public Policy, George Mason University, and Distinguished Senior Fellow at the World Resources Institute, U.S.
Jolene Lin, LLM, Faculty of Law, University of Hong Kong
Catriona McKinnon, PhD, Director, Leverhulme Programme in Climate Justice, University of Reading, UK, and Visiting Professor, Institute for Public Policy and Climate Change, NUIST, Nanjing, China
Leslie Paul Thiele, PhD, Director of Sustainability Studies, Department of Political Science, University of Florida

Forum for Climate Engineering Assessment Staff

Wil Burns, PhD, Co-Executive Director
Simon Nicholson, PhD, Co-Executive Director
Michael Thompson, Managing Director
Holly J. Buck, Faculty Fellow
David Morrow, PhD, Faculty Fellow
Gloria Gagin, Program Assistant

Expert Participants

Miranda Boetcher, Institute for Advanced Sustainability Studies
Jane Flegal, UC Berkeley
Clive Hamilton, PhD, Charles Sturt University
Pete Irvine, PhD, Harvard University
Sean Low, PhD, Institute for Advanced Sustainability Studies
Douglas MacMartin, PhD, Cornell University
Janos Pasztor, Senior Fellow, Carnegie Council for Ethics and International Affairs

Appendix B: Agenda

Thursday September 22
2 PM Arrivals (light lunch available)
2:30 - 3:15 PM Welcome and introductions; Wil Burns, Simon Nicholson, David Morrow
3:15 – 4:30pm Working Group Member Presentations
4:30 – 4:45pm Coffee
4:45 – 7:00pm Working Group Member Presentations (cont.)
7:00 - 7:45 PM Reception
8:00 - 9:30 PM Dinner

Friday September 23
7:00 AM Optional viewing of grounds
8:00 - 9:00 AM Breakfast
9:00 – 10:30 AM Assessing the Paris Target; the Evolving CE Conversation- Wil Burns, Clive Hamilton, and Janos Pasztor
10:30 - 10:45 AM Coffee
10:45 AM - Noon AWG Final Report work
Noon - 1:30 PM Lunch
1:30 - 6:00 PM AWG Final Report work
6:00 - 7:00 PM Reception
7:00 - 8:30 PM Dinner
8:30 PM - close Ongoing work on final report

Saturday September 24
7:30 - 8:30 AM Breakfast
8:30 – 9:30 AM Guided group exercise- George Collins and Sean Low
9:30 – 10:30 AM Presentation and discussion of report elements
10:30 – 10:45 AM Coffee
10:45 - Noon Report elements (cont.); Individual and small group work
Noon – 1:00 PM Lunch
1:00 - 2:00 PM Next steps: Berkeley meeting, fourth meeting
2:00 - 4:00 PM Departures