In May 2022, a new “global commission” will be launched to discuss and potentially devise a governance regime for solar geoengineering. This article provides background, context, and critical assessment to inform public debate about the impact of this new group, which might seek to expand and mainstream solar geoengineering as a legitimate response to the climate crisis.

Solar geoengineering is a hypothetical set of technologies to cool the planet through temporarily “dimming the sun.” One suggested technology is the continual spraying of megatons of aerosols into the upper layers of the atmosphere to reflect parts of the incoming sunlight, with huge unknown and untestable risks for ecosystems and people, and especially the global poor.

Technologies for solar geoengineering do not yet exist. Yet small groups of scientists in the Global North, often supported by wealthy private donors, increasingly explore the feasibility of solar geoengineering. Also, some professional organizations in the United States, such as the U.S. National Academy of Sciences or the American Meteorological Society, have called for expanding research programs on solar geoengineering despite the significant ecological and social risks involved. The rationale behind many of these calls is “to buy time”; given the slow pace of decarbonization and climate adaptation, they argue that solar geoengineering will be necessary to avoid the worst consequences of climate disruption.

This dangerous rationale is reflected in the title of the new group, Global Commission on Governing Risks from Climate Overshoot.[1] “Overshoot” is a new framing in some science communities that meeting the Paris goal of keeping global temperature rise below 1.5 degree Celsius may no longer be possible because of exceedingly high mitigation costs and the unlikelihood, or undesirability, of profound transformations in our economic systems. Those establishing this commission now present “climate overshoot” as almost an inevitability—as if climate mitigation policy and rapid decarbonization will be impossible. As such, they argue that “climate engineering” may become the sole technological insurance policy against devastating climate change. A fundamental problem with this rationale is of course that the potential of this technologic fix is reducing urgency for the transformative changes that are needed.
Resistance to solar geoengineering as a climate policy option is therefore strong and growing. Governments hesitate to fund research on these hypothetical technologies, and many civil society organizations are campaigning against any plans to engineer the climate.

Importantly, in January 2022, an international group of natural and social scientists has published an open letter calling for an International Non-Use Agreement on Solar Geoengineering. This letter has been signed by over 320 academics from 50 countries, who all agree that the risks of solar geoengineering are unacceptable. Further, the initiative highlights that solar geoengineering is fundamentally ungovernable.[2]

Also the Intergovernmental Panel on Climate Change remains cautious. In its latest report on the Mitigation of Climate Change,[3] the important Summary for Policymakers does not devote a single word to solar geoengineering. The message is clear: the IPCC does not see solar geoengineering as part of the global efforts to mitigate climate change. In addition to that, it is important to note that the IPCC has repeatedly and consistently warned against pathways that bet on temperature overshoot and in its latest reports confirms that CCS and CDR are unproven at scale, unavailable in the near term, of uncertain benefit for the climate, and pose significant risks of harm to humans and nature. [4]

UNELECTED AND UNACCOUNTABLE

The members of this new Global Commission on Governing Risks from Climate Overshoot have not yet been revealed, but they are supposed to be about fifteen “global leaders” including former presidents, ministers and representatives of international organizations.[5]

Publicly available information about the climate overshoot commission is limited, and many details including the participants selection process and the source of funding for the commission remains shrouded in mystery.

What is known about this new commission is cause for deep concern to those worried about the risks of solar geoengineering, and those who cherish democratic values.

First, it is a commission of fifteen former politicians and diplomats with no public legitimacy. Several pro-geoengineering individuals that were part of the Steering Committee had a significant influence on its formation. The commission is not mandated by the United Nations or by the United Nations Environment Programme. It is not linked to or supported by the Intergovernmental Panel on Climate Change. It is not part of the institutional structure of the UN Framework Convention on Climate Change or any other international organization. Instead, the commission is hosted by a small non-governmental organization, the Paris Peace Forum, a recently created private institute which, according to its website, organizes governance platforms, in particular “when these [multilateral] institutions cannot act or when the solutions proposed are insufficient.”[6] It is not revealed who selected the commissioners, and they are not accountable to the public or potentially affected people and communities.

NOT REPRESENTATIVE

Second, the commission is unlikely to represent the global youth and thus to bring a strong commitment to principles of intergenerational justice. Based on what has been revealed so far, most commissioners are likely to be retired or close to retirement. By and large, they represent the generation that is responsible for the looming climate crisis, linked to the political power and authority that they once wielded as former leaders in their countries and in international institutions. Given that the decades of ineffective leadership and action on climate, a commission comprised of former politicians, who will not live through the worst of the climate crisis, seems ill-equipped to assume authority in shaping global debate on whether to geoengineer the planet.

The chair of this climate overshoot commission, Pascal Lamy, provides a helpful example. Mr. Lamy had a long career in French, European and international public service, including as secretary-general of the Committee for the Remodeling of Industrial Structures in the French Treasury Department and as the European Union’s Commissioner for Trade. He has worked for Crédit Lyonnais and advises several multinational corporations, including Danone and Bosch. Most importantly, from 2005 to 2013, Lamy was at the helm of the World Trade Organization (WTO), the body responsible for the massive expansion of trade and of related sharp increase in carbon emissions at a time when the extent of the climate crisis was clear. As a former leader of the WTO, Lamy is complicit and partly responsible for the massive growth in emissions during that period. His legacy of insufficient climate action is concerning.
ELITE AND UNDEMOCRATIC

Third, the overall set up of this elite geoengineering commission is counter to the urgent calls for more, rather than less democracy. As the inequities and disparities of climate impacts become more obvious, inclusive participation and diverse representation is essential to any and all deliberations on how to respond to the climate crisis. Instead of supporting this private elite group, investment should be made in social innovations including listening to grassroots, Indigenous organizations and popular movements, citizen assemblies, citizen parliaments and deliberative democracy, where citizens debate the future, develop novel solutions to the climate crisis and find common ground on a “just transition” away from fossil fuels.

CREATED BY GEOENGINEERING ADVOCATES

Fourth, the process around which the commission has been created, was initiated and has been shaped by some of the world’s most outspoken advocates and leading campaigners for solar geoengineering. As a result, the commission is already deeply biased towards promoting and justifying geoengineering.

A small steering group, constituted in early 2021, was mandated to define the objectives, scope and design of the commission, including seeking co-chairs, raising funds, staffing the secretariat, and recruiting the commission.[7] The idea for this commission to assess climate engineering options was floated in 2017 in a policy paper by Edward Parson, a law professor from the United States who has for many years been at the forefront of geoengineering advocacy and leads the Geoengineering Governance Project at the University of California, Los Angeles (UCLA).

Jesse Reynolds, a former fellow at UCLA in 2018-2021, is another long-standing advocate for geoengineering who authored a book making the case for geoengineering. Using his academic credentials, he has repeatedly attacked leading civil society organizations who are opposing solar geoengineering. With Reynolds now as the executive secretary of the new climate overshoot commission, there is no doubt about the aspired direction of its findings. With Reynolds coordinating the effort, the new commission is set to normalize and mainstream a pro-geoengineering position within the climate policy portfolio.

Unsurprisingly, David Keith, the most widely known and best funded advocate of geoengineering who has been strategically leveraging his power and privilege to push the solar geoengineering agenda for over a decade, was part of the steering group as well. Keith is a professor of Applied Physics and the director of the Solar Geoengineering Research program at Harvard University; he also has financial interests in the success of this commission because he is founder and board member of a company (Carbon Engineering) that is profiting from the development of technology to remove carbon dioxide through Direct Air Capture.

Janos Pasztor, another member of the steering team that designed the climate overshoot commission, is a former UN official with a degree in nuclear engineering, who has worked since 2016 as the executive director of the Carnegie Climate Geoengineering Governance Project. The Carnegie project is a privately funded group of lobbyists focused on catalyzing “the creation of effective governance for climate-altering technologies, in particular for solar radiation modification and large-scale carbon dioxide removal” (now called Carnegie Climate Governance Initiative, C2G). C2G calls itself “impartial regarding the potential use of any proposed climate-altering technologies or interventions”[8]. But its consistent advocacy for CDR and solar geoengineering and its close ties with geoengineering proponents clearly contradict that statement.

The UCLA, Harvard, and Carnegie geoengineering programs are all funded by similar billionaire-founded philanthropic organizations. Some of these include Bill Gates’ Fund for Innovative Climate and Energy Research, the Open Philanthropy Project, the OAK Foundation, along with several other wealthy foundations and individuals connected to tech and financial corporations.

Stewart M. Patrick, another member of the steering group that set up the climate overshoot commission is a former UN official with a degree in nuclear engineering, who has worked since 2016 as the executive director of the Carnegie Climate Geoengineering Governance Project. The Carnegie project is a privately funded group of lobbyists focused on catalyzing “the creation of effective governance for climate-altering technologies, in particular for solar radiation modification and large-scale carbon dioxide removal” (now called Carnegie Climate Governance Initiative, C2G). C2G calls itself “impartial regarding the potential use of any proposed climate-altering technologies or interventions”[8]. But its consistent advocacy for CDR and solar geoengineering and its close ties with geoengineering proponents clearly contradict that statement.

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Stewart M. Patrick, another member of the steering group that set up the climate overshoot commission is a former policy planner at the US State Department and Head of the Global Governance Program at the US Council on Foreign Relations. Patrick has publicly argued that solar geoengineering is inevitable.[9] Through publications, blogs and events, the powerful Council on Foreign Relations has led in pushing the solar geoengineering conversation in US policy circles.

Given the relatively strong interest in geoengineering in the United States, it is not surprising that the planning group was heavily biased towards representatives of the Global North: over half of the members of the group came from the Global North. Harvard University and the University of California, Los Angeles—that is, the research groups of Keith and Parson—are noted as co-initiators of the global overshoot commission. No institution from the Global South was mentioned as a co-initiator.
Critical voices on geoengineering—like representatives of the 320 scientists who called for an International Non-Use Agreement on Solar Geoengineering—seem to not have been involved at all, while at least four members of the steering group - Keith, Parson, Patrick and the committee’s secretary Reynolds – are among the most prominent advocates of solar geoengineering.

Officially, the commission will also look into adaptation and the protection of vulnerable people in the Global South—but given the dominant role of Parson, Keith, Reynolds, Pasztor, and Patrick, it is evident that solar geoengineering is the group’s core focus. Adaptation and vulnerability may serve as fig leaves to conceal this core focus, and to add legitimacy to the commission. Notably, the original proposal for this commission, in 2017 by Parson, was exclusively about a world commission on geoengineering, with no mention of adaptation.

**INDEPENDENT FROM THE MULTILATERAL PROCESS**

Fifth, conceptually, the global overshoot commission seems to envisage governance outside the established multilateral process. The background note for the commission asserts that the “current global governance framework is ill-equipped to integrate a mix of different technology and policy responses into a single, coherent strategy for reducing risks from climate overshoot,” which could suggest a novel governance regime for solar geoengineering outside the democratic political processes under the UN and the climate convention.

In addition, the overshoot commission itself seems to operate largely outside the intergovernmental process that has been built over the last thirty years.

This independence relates, first, to the institutional set-up itself. The global overshoot commission, as noted above, has no relationship to any of the established multilateral processes, neither the UN Framework Convention on Climate Change, the UN Environment Programme, nor the Intergovernmental Panel on Climate Change. The reason for this is simple: none of these institutions have expressed any interest in viewing solar geoengineering as a plausible policy option.

The Intergovernmental Panel on Climate Change has made its position clear by not including any reference to solar geoengineering in the Summary for Policymakers of its 2022 report *Mitigation of Climate Change*. The global overshoot commission seems to envisage here its own science support system. According to the background note, the commission “will be aided by a select group of leading scientists, who will assess the relevant range of available scientific and technical knowledge.” Given the strong and formal role of Harvard’s Solar Geoengineering Research program and the UCLA Geoengineering Governance Project in setting up the global overshoot commission, it seems likely that these teams will be among the “leading scientists” who will “assess the relevant range of available scientific and technical knowledge”. Notably, the only scientific study that is cited in the background note is a paper from Peter Irvine and colleagues, again one of the well-known solar geoengineering advocates.

**A WAY FORWARD**

For those concerned about the risks of advancing solar geoengineering, this article explores two of the many possible ways to respond to the efforts of a self-appointed experts of the climate overshoot commission.

One is to ignore this new commission. It is unelected. It is private. It is simply a group of former public servants posing as a “global commission” to influence the future governance for climate engineering.

It is likely, however, that this commission and its supporters will try to further leverage their influence. Those who are behind this commission will work hard to present the group as legitimate, and while the group is not related to the United Nations, its advocates will want to represent it in line with official UN panels, such as the Brundtland commission. And because they are well financed, the future report of the climate overshoot commission will be widely distributed by its supporters and affiliated lobbyists, in an attempt to present the group’s conclusions as authoritative and as something that the world is supposed to take seriously. The well-oiled public relations teams and deep-pocketed foundations behind the overshoot commission and key geoengineering advocates associated with it make it likely that this attempt could, at least to some extent, be successful. Its timing is also well coordinated with other efforts aiming to normalize solar geoengineering at the UN level, including a push for a resolution at the UN General Assembly in 2023 as proposed by C2G.[10]

A second option is thus to closely monitor, assess, discuss, and critique all communications and outputs from this group. Given
the attention the commission is likely to generate, it would be unwise to ignore it. Civil society organizations, academics and climate justice advocates need to pay attention to monitor its processes and publicly comment whenever it makes pronouncements.

Government agencies and elected representatives need to carefully consider whether they will give this private, unelected commission any attention or legitimacy. Debate on whether societies should invest in advancing solar geoengineering needs to happen in public forums with broad and inclusive participation. It most certainly must not be left to fifteen former politicians that nobody has elected or holds to account.


[8] See https://www.c2g2.net/c2g-mission/


[10] See https://www.c2g2.net/our-approach/