

Governance for a ban on geoengineering

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All geoengineering approaches are by definition large-scale, intentional, and high-risk. Some have well-known negative impacts, threatening the achievement of the Sustainable Development Goals and undermining fundamental human rights (for example Bio-Energy with Carbon Capture and Storage). Others have great uncertainties when it comes to their potential impacts, that will never be fully known before actual deployment (mostly Solar Radiation Management).

There is a very important principle in international and national environmental law when it comes to dealing with uncertainties and risks – the precautionary principle. Based on this principle, the outdoor testing and deployment of SRM technologies, because of their potential to weaken human rights, democracy, and international peace, should be banned outright. This ban should be overseen by a robust and accountable multilateral global governance mechanism.

Other technologies that require great scrutiny are Carbon Dioxide Removal (CDR) projects that threaten indigenous lands, food security, and water availability. Such large-scale technological schemes must be assessed diligently before setting up proper regulations, to ensure that climate-change solutions do not adversely affect sustainable development or human rights. Any intentional large-scale deployment of transboundary nature (and with potential transboundary risks and harms) needs to be assessed by an agreed UN multilateral mechanism, taking into account the rights and interests of all potentially impacted communities and future generations. Most CDR schemes currently proposed would very likely fail such a rigorous assessment.

A ban requires governance

So why should I be interested in a debate on governance of a set of technologies that I would like to see banned? The answer is clear: a ban requires governance to ensure it is being implemented and enforced. And furthermore: governance of geoengineering is not just about the rules, procedures and institutions controlling research and potential deployment, but it is also about the process and discourse leading up to it. Unfortunately, current debates about climate engineering are undemocratic and dominated by technocratic worldviews, natural science and engineering perspectives, and vested interests in the fossil-fuel industries. Developing countries, indigenous peoples, and local communities must be given a prominent voice, so that all risks can be fully considered before any geoengineering technology is tested or implemented.

The good news is that a debate of governance of geoengineering does not take place in a legal or political vacuum. There are a number of important decisions to build upon. In 2010, 193 governments – parties to the United Nations' Convention on Biological Diversity (CBD) – agreed to a *de facto* international moratorium on all climate-related geoengineering. More thematically focused, the London Convention/London Protocol (LP) to prevent marine pollution adopted a decision in 2013 to prohibit marine geoengineering (except for legitimate scientific research).

The decision (adopted but waiting to enter into force) applies to the technologies that are included in an annex, which for now only lists ocean fertilization, as other techniques have not been thoroughly considered by the LP yet.

Beyond climate change

But geoengineering is about much more than climate change. Many geoengineering techniques have latent military purposes and their deployment could violate the UN Environmental Modification Treaty (ENMOD), which prohibits the hostile use of environmental modification. The Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD) has been in force since 1978 and has been ratified by 77 states. It prohibits the use of environmental modification and commits parties “not to engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party” (Article I). Article II defines environmental modification techniques: “any technique for changing – through the deliberate manipulation of natural processes – the dynamics, composition or structure of the Earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space.” This definition encompasses many geoengineering technologies currently under active research and development.

Today, with powerful advocates generating so much pressure to bring geoengineering technologies out of the lab, soft bans with little enforcement mechanisms like the CBD decision are no longer sufficient. The world urgently needs an honest debate on the research, deployment, and governance of these technologies. The CBD and the London Protocol are essential starting points for these governance discussions, but these are certainly not enough.

Using the precautionary principle

In our civil society briefing on the Governance of Geoengineering “[Riding the Geostorm](#)” – that the Heinrich Böll Foundation published jointly with ETC Group – we highlight some key criteria for a legitimate discussion on geoengineering governance. In our view it should be based on the precautionary principle and not be confined to climate-related issues, as the consequences are more far-reaching than the climate, including weaponization, international equity, intergenerational justice, impacts on other ecosystems, such as biodiversity and oceans, impact on local and national economies dependent on those, indigenous and peasant rights.

Any debate on geoengineering, in our view, needs to be entwined with and informed by a rigorous discussion on ecologically sustainable and socially just alternatives to confront climate change and its causes, that shows that geoengineering is not a physical necessity or technical inevitability but a question of political choices.

Multilateral, participatory discussions

Discussions on the governance of geoengineering need to be multilateral and participatory, transparent and accountable. They need to allow for the full participation of civil society, social movements and indigenous peoples. All discussions must be free from corporate influence, including through philanthro-capitalists, so that private interests cannot use their power to determine favourable outcomes or to promote schemes that serve their interests. This also means that initiatives like the C2G2 need to have obligatory, public and non-ambiguous conflict of interest policies in place, that prevent researchers with commercial interests in geoengineering to act as “independent” expertise.

An agreed global multilateral governance mechanism must strictly precede any kind of outdoor experimentation or deployment. And a ban on geoengineering testing and deployment is a governance option that I would certainly like to keep on the table.

The International Campaign to Abolish Nuclear Weapons (ICAN), a long-standing partner of the Heinrich Böll Foundation, received the Nobel Peace Prize this year “for its work to draw attention to the catastrophic humanitarian consequences of any use of nuclear weapons and for its ground-breaking efforts to achieve a treaty-based prohibition of such weapons”. Maybe this shows that despite a rather negative outlook on the future of multilateralism today, there’s an appetite to take bold and clear action when it comes to enclosing high-risk technologies.

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