The Security Implications of Emerging Climate
Altering Technologies

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Applying European and International Law Principles and Practice to Geoengineering Governance

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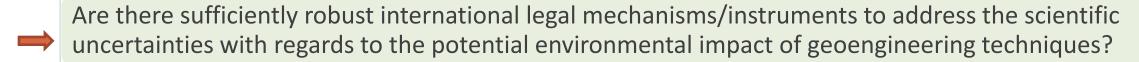








Key questions on the applicability of international and EU law and principles to geoengineering



- Is a governance regime at the United Nations level a way forward in addressing the deficiency in regulation despite of the lack of political commitments?
- Is a general ban or a moratorium of the development, testing and use of certain techniques a way forward in managing the enforceable and unintended environmental risks?
- To what extent precautionary principle as applied in EU law (relevant ECJ jurisprudence) is addressing the matter?
- Will it be enough if the precautionary principle is applied, strictly in conjunction with early and adequate participation/consultation of the public concerned and the environmental NGOs?
- The precautionary principle, will it guarantee the inter-generational equity considering the possible long-lasting impact of geoengineering techniques?



International context and international law relevant to the governance of geoengineering

- SRM and CDR not just an issue of scientific inquiry they are being promoted onto the political agenda through research, government subsidies, and favourable legislation
- The Intergovernmental Panel on Climate Change (IPCC) is expected to dedicate more attention on SRM and CDR in its forthcoming sixth assessment report
- Several treaties and international documents relevant to geoengineering contain an obligation or a reference to carrying out environmental assessments
- Some techniques were regulated at the international level, in particular the moratorium by the Convention on Biological Diversity and the ban on ocean fertilization and other regulation for marine geoengineering under the London Protocol/London Convention (risk assessment framework).
- CBD decision- no climate-related geoengineering activities that may affect biodiversity take place
- Switzerland put geoengineering governance on UN agenda (UNEA4) the resolution was not adopted
- There is no sufficient political commitment to regulate the development, testing and application of geoengineering techniques globally





Geoengineering and precautionary principle Scientific uncertainty v/s possible harm of 'doing nothing'

Precautionary principle – designed to assist with decision-making under uncertainty (Rio declaration and EU legislation)

- Plausible risks/treats but inconclusive evidence, incomplete information, enforceable impact
- 'Better safe than sorry' -regulatory intervention may still be legitimate even with incomplete or speculative evidence
- Application of the principle should start after as complete as possible scientific evaluation and examination with the identification of the degree of scientific uncertainty at each stage (where possible)
- EU provides step by step guide on the application of the principle, still it is flexible and not prescriptive, which questions its reliability and its consistent application (a certain degree of interpretation)





Scientific uncertainty and the evidence –based policy

 How to determine when and how to act on potential risk in case of uncertainty and apply the principle?

Uncertainty **might be complex** including:

- Indeterminacy (not all factors known which influence the cause chain)
- Ambiguity (contradictory certainty)
- Ignorance (we don't know what we don't know)
- Unknown nature or scale of likely adverse effect
- Cause-effect relationship cannot be established

The principle ensures that decision makers take risks into account even if they are not proven with scientific certainty!



Criticism

- Ambiguity of terms: 'irreversibly harm' or 'lack of full scientific certainty' –inconsistency in application which undermines the legal certainty
- Unclear what level of uncertainly invokes the precautionary principle
- Anti scientific, halt innovation and technical advancement, discourages investments
- Attacked on the basis that there is no zero risk activity

Limitations:

- all the principle can provide is establish interpretative guidance and procedural safeguards for dealing with scientific uncertainty
- does not provide a sufficient legal tool for making essentially political decisions about conflicting objectives and managing risks



The application of the principle should involve open, informed and democratic process!

The principle becomes more reasonable, inclusive and accountable

EU communication on the principle suggests:

- Fullest possible scientific evaluation incl. degree of scientific uncertainty
- Evaluation of various risk management option incl. not to take precaution
- Involvement as early as possible to the extent reasonable of all interested parties

Any measure should be

- proportionate
- based on cost benefit analysis
- subject to review when new scientific information becomes available





Objectives and criteria of international geoengineering governance – the way forward

Overarching **objectives** can guide us:

- a) to avoid negative transboundary environmental and health risks and impacts;
- b) to avoid political tension and conflicts, in particular resulting from unilateral action, as well as legal disputes;
- c) to coordinate scientific research.

Following more concrete criteria:

- a) It should implement a precautionary approach in respect of the risks of geoengineering;
- b) It should facilitate broad international participation and acceptance;
- c) It should avoid or at least minimize any direct or indirect undermining of climate mitigation efforts;
- d) It should aim at a high level of legitimacy, including through (public) participation and transparency, in particular with respect to (i) general rule-making, (ii) case-specific decision-making on any proposed concrete geoengineering activity in the field, and (iii) any actual permitted geoengineering activity, e.g. through monitoring and reporting; and
- e) It should allow for a sufficient level of flexibility in order to be able to respond to new scientific knowledge as well as the evolving public debate on geoengineering.







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