

German Environment Agency

**Umwelt Bundesamt**

*SCIENCE DAY – Scientific Groups LP/LC March 2023*

# The amendment of 2013 on Marine Geo-Engineering

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## Background

**London Convention 1972 and London Protocol 1996**

**Focus:** Prohibition of Incineration  
Dumping of Waste and other matter in the ocean

**Not with the scope:**  
Waste Disposal from Abstraction Industries (Oil, Gas, mineral Resources): Competence of International Seabed Organization  
Regional Organizations (OSPAR, HELCOM)  
Waste Disposal from Normal Shipping Operations: Competence of IMO

**London Protocol = International Treaty for its own  
More Modern, More Stringent  
More up to date: Inter alia: Geo Engineering amendments**

**LC: 90 Contracting Parties, LP: 50 contracting Parties**

**LC Parties accept LP standards informally or by national law**

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## The Framework

- **Amendment of 2013 on Marine Geo-engineering Techniques**
  - Framework Regulation
- **Definition of Marine Geo-Engineering**
  - Marine geoengineering" means **a deliberate intervention in the marine environment to manipulate natural processes**, including **to counteract anthropogenic climate change and/or its impacts**, and that has the **potential to result in deleterious effects, especially where those effects may be widespread, long lasting or severe.**"
- **Art. 6bis**
  - Contracting Parties shall not allow **the placement of matter into the sea** from vessels, aircraft, platforms or other man-made structures at sea **for marine geoengineering activities listed in annex 4**, unless the listing provides that the activity or the subcategory of an activity may be authorized under a permit."

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## The Framework

- **Listing Approach: Annex 4**
  - So far: only Ocean Fertilization
  - Emerging technologies, eg. Macroalgae, Alkalinisation
  - No separate Ratification for additional listings
- **Specific Regulation of ocean Fertilization**
  - Prohibition of commercial projects
  - Research project in general permissible: control mechanism by national authorities
- **Control by Competent Authority of States**
- **Legally binding: In Force after about 35 Ratifications: Currently about 6 Ratifications**

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### Annex 5: legitimate scientific research

- **Annex 5 – First: Criteria to differentiate Research and Deployment**
  - Addition to scientific knowledge
  - Accepted methodology
  - Peer review
  - Evidence required: Not influence of Research contents and Design through economic interests
  - Obligation to Publish Research results
  
- **Novum in international law**

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### Annex 5: Substantial and procedural requirement

- **Annex 5 - Second: Structured Environmental Impact Assessment**
  - General Description of Activity
  - Site Description
  - Matter Description
  - Assessment of Impacts on the mairne environment
  - Risk management measures
  - Monitoring measures
  - > Permit conditions
  - Reporting and continuous review
  
- **Annex 5 – Third: Procedural Requirements**
  - Consultation of all concerned states, regional organizations and all stakeholder
  - Involvement of international independent Experts  
Potentially concerned States could request the involvement
  
  - > Conflict solving Mechanism: Objectivity and Transparency

**No Comparable Detailed Regulation under CBD, Montreal Protocol or UNFCCC**

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➤ **Annex 5: Criteria to differentiate Research and Deployment**

- Objective and functionality of these criteria - „**legitimate scientific research**“
  - Ensuring compliance with standards of good scientific practice
    - Prevention of „fake science“
    - Prevention of deployment
    - Focussing on promising techniques

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➤ **Annex 5: Criteria to differentiate Research and Deployment**

	Good standards of scientific practices - No „fake science“	Prevention of deployment	Focus on promising techniques
Addition to knowledge	Yes	Yes	Potentially
Accepted methodology	Yes – good science in essence	Yes – good science in essence	To a certain extent
Peer review	Yes – control and transparency	Yes – control and transparency	Potentially
No influence of economic interests – evidence	Yes	Yes	Potentially
Obligation to publish results	Yes – control of criteria 1 and 2	Yes – control of criteria 1 and 2	Potentially

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## Conclusions on the Amendments 2013

- **Definition of Marine Geo-Engineering**
- **Ocean Fertilization only technique regulated so far**
  - Prohibition of deployment of OF
- **Effective control mechanism of research activities – four core elements**
  - Criteria to determine research
  - Structured assessment of potential effects on marine environment
  - Consultation requirements and involvement of independent experts
  - Control by competent authority
- **Future proof: Inclusion of additional techniques in Annex 4**
  - No ratification needed

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**Thank you for your  
attention**

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