

The following statement was adopted by the 44th Consultative Meeting of Contracting Parties to the London Convention and the 17th Meeting of Contracting Parties to the London Protocol (LC 44/LP 17) and is taken from LC 44/17, annex 2.

STATEMENT ON MARINE GEOENGINEERING

MINDFUL of the Intergovernmental Panel on Climate Change (IPCC) report of 2018 (special report of 1.5 degree)¹ and the IPCC Sixth Assessment Report;²

RECALLING the 2008 and 2010 resolutions on ocean fertilization, and the 2013 resolution adopting the amendment to the London Protocol to regulate marine geoengineering;

URGING the ratification and implementation of the 2013 amendment, while recognizing the controls provided in the 2008 and 2010 resolutions;

EMPHASIZING that marine geoengineering should not be considered as a substitute for measures to reduce carbon dioxide emissions;

MINDFUL of investigations into the potential for marine geoengineering to mitigate the effects of climate change and of multiple interests driving urgency for deployment;

ACKNOWLEDGING the limited information about certain marine geoengineering techniques and scientific uncertainties on effectiveness; and

ACKNOWLEDGING nonetheless the potential for these techniques to have deleterious effects, especially where those effects may be widespread, long lasting or severe.

The forty-fourth Consultative Meeting of Contracting Parties to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (London Convention) convened in conjunction with the seventeenth Meeting of Contracting Parties to the 1996 Protocol to the London Convention, 1972 (London Protocol) developed the following “statement on marine geoengineering”:

1 The governing bodies recognize the growing interest in marine geoengineering³ techniques and their potential to cause pollution⁴ or other adverse effects on the marine environment.

2 Based on the information in the GESAMP WG 41 report of 2019,⁵ the advice provided by GESAMP to the Scientific Groups (LC/SG 45/3) and the further refinement and prioritization of the techniques outlined in the report of the Correspondence Group on Marine Geoengineering (LC 44/5), the governing bodies have identified four techniques for priority evaluation.

¹ IPCC, 2018: Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 3-24. <https://doi.org/10.1017/9781009157940.001>

² IPCC, 2022: Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, UK and New York, NY, USA. doi: 10.1017/9781009157926

³ As defined in resolution LP.4(8), *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.

⁴ As defined in article 1.10 of the London Protocol, *pollution* means the introduction, directly or indirectly, by human activity, of wastes or other matter into the sea which results or is likely to result in such deleterious effects as harm to living resources and marine ecosystems, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of seawater and reduction of amenities.

⁵ GESAMP (2019). “High level review of a wide range of proposed marine geoengineering techniques”. (Boyd, P.W. and Vivian, C.M.G., eds.). (IMO/FAO/UNESCO-IOC/UNIDO/WMO/IAEA/UN/UN Environment/UNDP/ISA Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection). Rep. Stud. GESAMP No. 98, 144 p.

3 These four techniques involve either carbon dioxide removal (CDR) or solar radiation modification (SRM) as follows:

- enhancing ocean alkalinity (CDR);
- macroalgae cultivation and other biomass for sequestration including artificial upwelling (CDR);
- marine cloud brightening (SRM); and
- microbubbles/reflective particles/material (SRM).

4 The LP and LC Parties are undertaking a legal and technical analysis in order to evaluate options for appropriate action, including regulation, within the scope of the LP/LC.

5 Furthermore, taking into account the precautionary approach outlined in article 3 of the London Protocol, and while the 2013 LP amendment on marine geoengineering awaits entry into force (resolution LP.4(8)), the governing bodies encourage Contracting Parties to apply Annex 5 (the marine geoengineering assessment framework) to evaluate proposed marine geoengineering projects, including the four techniques mentioned above, to apply the utmost caution to their consideration, and to provide information to the LP/LC about ongoing and planned marine geoengineering activities.

**Background information on LP/LC ocean fertilization resolutions
and the 2013 LP amendment**

In 2008, Parties to the LP and LC adopted resolution LC-LP.1 (2008) by consensus. The resolution states that ocean fertilization activities fall within the purview of the LC/LP and that ocean fertilization activities other than legitimate scientific research should not be allowed.

LP and LC Parties also agreed under resolution LC-LP.2 (2010) on the “Assessment Framework for Scientific Research involving Ocean Fertilization” that proposed research projects should be assessed to determine if they qualify as legitimate scientific research.

Together, these resolutions apply to all LC Contracting Parties and continue to apply to LP Contracting Parties, pending the entry into force of the 2013 amendment to the LP.

In 2013, the LP was amended to further regulate ocean fertilization. This amendment will, when in force, create a legally binding regime providing a science-based, global, transparent and effective regulatory and control mechanism for marine geoengineering. The amendment enables the future regulation of marine geoengineering techniques that fall within the scope of the LP and have the potential to cause widespread, long-lasting or severe impacts on the marine environment.
