



FORTY-EIGHTH CONSULTATIVE
MEETING OF CONTRACTING PARTIES TO
THE LONDON CONVENTION
&
TWENTY-FIRST MEETING OF CONTRACTING
PARTIES TO THE LONDON PROTOCOL
5 – 9 October 2026
Agenda item 5

LC 48/5/4
3 July 2026
Original: ENGLISH
Pre-session public release: ☑

MARINE GEOENGINEERING INCLUDING OCEAN FERTILIZATION

Report of the Legal Intersessional Correspondence Group (LICG) on Marine Geoengineering

Submitted by the Co-Chairs of the Correspondence Group

SUMMARY

Executive summary: This document contains the report of the Legal Intersessional Correspondence Group (LICG) on Marine Geoengineering, established at LC 47/LP 20.

Action to be taken: Paragraph 53

Related documents: LC 47/18, LC 47/5, LC 47/5/4 and LC/SG 49/3

General

1 In 2025, the governing bodies, at the 47th session of the London Convention and the twentieth session of the London Protocol (LC 47/LP 20), established the Legal Intersessional Correspondence Group (LICG) on Marine Geoengineering (MGE) (the Group), under the coordination of Belgium and Panama (LC 47/18, paragraph 5.32 and annex 3).

Terms of reference

2 Taking into account the comments and decisions made at LC 47/LP 20, the Group was instructed to (LC 47/18, annex 4):

- .1 endeavour to develop a draft resolution to provide clarity and address challenges regarding the purpose and application of the LC and LP to MGE, taking into account, as appropriate, the 2013 amendment, the relevant resolutions and the statements of 2022 and 2023 and the envisioned measures necessary to deal with the challenges identified;
- .2 further refine the working definitions for the four prioritized MGE techniques in collaboration with the other Intersessional Correspondence Group under the Scientific Groups, and forward the definitions to the Correspondence Group under the Scientific Groups, for consideration;

- .3 clarify how to apply the draft revised Ocean Fertilization Assessment Framework (OFAF) and advise on the next steps needed to promote its effective implementation by the Contracting Parties of the LC/LP, and provide a way forward for the governing bodies in 2026, including the communication of the framework;
- .4 clarify how to apply the draft assessment frameworks on ocean alkalinity enhancement, biomass sinking and marine albedo modification being developed by the Scientific Groups and advise on the next steps needed to promote their effective implementation by the Contracting Parties of the LC/LP and provide a way forward for the governing bodies in 2026, including the communication of the frameworks;
- .5 identify options for the listing of the new techniques for the purpose of article 6*bis* of the 2013 amendment and develop suitable regulatory text where appropriate and in collaboration with the intersessional Correspondence Groups under the Scientific Groups, by considering the potential regulations of each technique separately, taking into account the review of scientific information undertaken by the Scientific Groups;
- .6 discuss the interpretation of paragraph 8.4 of annex 5 of the 2013 amendment, with the aim of understanding the implications of and coming to a common interpretation of this paragraph, applying the consideration that economic interests do not influence the design, conduct and/or outcome of the proposed activity and that there should not be any financial and/or economic gain arising directly from the experiment or the outcomes;
- .7 explore the synergies and complementarity of the Agreement under the United Nations Convention on the Law of the Sea (UNCLOS) on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction (BBNJ Agreement) and the LC/LP with regard to marine geoengineering; and
- .8 submit a report to the next meeting of the governing bodies in 2026.

3 In this regard, the governing bodies authorized the Group to convene remote meetings, as necessary, using a suitable platform, in order to consider any of the terms of reference.

Method of work

4 As instructed by the governing bodies, the Group made use of a phased approach and sub-groups, where appropriate, to organize the work on the various terms of reference (TORs). The Group further relied on volunteering Member States and NGOs for the development of the basis for discussion of several TORs.

5 The following paragraphs give more detail regarding the work of the Group on each element of its TORs.

TOR 1 – Draft resolution of marine geoengineering

6 As per the TORs, the Group was instructed to endeavour to develop a draft resolution to provide clarity and address challenges regarding the purpose and application of the LC and LP to MGE, taking into account, as appropriate, the 2013 amendment, the relevant resolutions and the MGE statements of 2022 and 2023 by the governing bodies and the envisioned measures needed to address the identified challenges.

7 At its first virtual meeting on the topic of TOR 1, the Group decided that the draft resolution on marine geoengineering would have most effect if the three proposed assessment frameworks were adopted as best practice guidance, once complete. The delegation of Germany, assisted by others, provided the Group with a first draft of a cover resolution that was discussed at subsequent meetings.

8 During the subsequent exchanges through correspondence and virtual meetings, the draft resolution was further refined to (1) maintain a strong focus on the adoption of the three assessment frameworks, and (2) remain as brief as practicable to facilitate broad agreement by participating Contracting Parties. Some delegations reserved their positions on whether the assessment frameworks should be adopted. The draft resolution is set out in annex 1.

9 Although the Group finalized the text of the draft resolution, there were concerns expressed by a number of delegations on several clauses. The delegation of the United States indicated that it did not view the text of the draft resolution as having consensus. Some delegations also requested specific mention of their delegations' opposition to certain paragraphs in the text of the draft resolution, as follows:

- .1 non-operative clause 2 (United States),
- .2 non-operative clause 4 (United States),
- .3 non-operative clause 8 (United States),
- .4 operative clause 3 (United Kingdom, United States), and
- .5 operative clause 4 (Japan, United Kingdom, United States),

with further discussion requested on:

- .6 operative clause 6 (United Kingdom), and
- .7 operative clause 7 (United Kingdom).

TOR 2 – Working definitions

10 As per the TORs, the Group was instructed to further refine the working definitions for the four prioritized MGE techniques in collaboration with the other Intersessional Correspondence Group under the Scientific Groups, and forward the definitions to the Correspondence Group under the Scientific Groups, for consideration.

11 The Group decided to focus on the working definitions for the three prioritized MGE techniques for which draft assessment frameworks have been developed (ocean alkalinity enhancement, ocean sinking of biomass) or are actively being developed (marine albedo surface modification). Since there is no clarity yet on whether marine cloud brightening falls under the scope of LC/LP, this working definition was not further refined.

12 Over the course of several rounds of written correspondence and virtual meetings, the Group further refined the working definitions as set out in annex 2. One delegation noted that it had reviewed the working definitions in the context of their use in the assessment frameworks, and that further refinement may be needed for other uses.

13 The Group completed its work on the working definitions, as set out in annex 2, and forwarded them to the Intersessional MGE Correspondence Group under the Scientific Groups for their use.

TORs 3 and 4 – Ocean Fertilization Assessment Framework and Assessment Frameworks for Other Marine Geoengineering Techniques

14 As per the TORs, the Group was instructed to clarify how the draft revised OFAF and the draft assessment frameworks for Ocean Alkalinity Enhancement (OAE), Biomass Sinking (BS) and Marine Albedo Modification (MAM) should be applied, to advise on the next steps to promote their effective implementation by Contracting Parties to the London Convention and London Protocol (LC/LP), and to provide a way forward for the governing bodies in 2026, including the communication of the frameworks.

15 The Group considered TORs 3 and 4 together, noting that the assessment frameworks share a common structure and that many of the legal, policy and implementation issues discussed were broadly applicable to all. During its discussion, the Group also considered the legal and policy questions identified in table 1 of document LC/SG 49/3.

16 The Group first considered the legal status and application of the assessment frameworks. Many delegations viewed the assessment frameworks as best practice guidance intended to support the implementation of annex 5 to the 2013 amendment. A number of delegations emphasized that the assessment frameworks do not create new legally binding obligations and should not be interpreted as creating expectations beyond those contained in annex 5. At the same time, some delegations observed that, the assessment frameworks may provide practical guidance beyond the minimum requirements of annex 5, provided that they remain consistent with the amendment. Delegations further recognized that Contracting Parties retain discretion with respect to national administrative arrangements, institutional responsibilities and permitting processes, and that the assessment frameworks should therefore preserve sufficient flexibility to accommodate different national legal and institutional systems. The United States noted its concern that several technical/scientific issues remain in the draft assessment frameworks for OAE, BS and MAM, which was also raised at the joint session of the Scientific Groups.

17 The Group also noted that the OFAF is intended to serve as a Specific Assessment Framework under article 6*bis* of the 2013 amendment and that its application should be considered in light of the status and level of acceptance of that amendment. Some delegations also recalled that the revised OFAF builds upon the framework adopted through resolution LC-LP.2(2010). Accordingly, the Group agreed that the OFAF should continue to be used as practical guidance to support the implementation of annex 5, while remaining consistent with the provisions of the 2013 amendment.

18 The Group considered the roles and responsibilities of competent authorities in applying the assessment frameworks. Views differed among delegations as to whether additional clarification would facilitate implementation. While some delegations considered that no further clarification was necessary, given that institutional arrangements fall within national discretion, others considered that additional guidance could assist implementation, particularly by clarifying the oversight role of competent authorities where technical assessments are prepared by external consultants or research organizations. These delegations also

highlighted the importance of maintaining appropriate governmental oversight throughout the assessment process and avoiding conflicts of interest.

19 The discussion also identified broader legal issues relating to jurisdiction, flag State responsibility and potential liability, which several delegations considered may warrant further legal and policy consideration. In light of the differing views expressed, the Group recognized that further discussion would be required before determining whether additional guidance on the roles and responsibilities of competent authorities should be reflected in the assessment frameworks.

20 The Group considered the level of detail expected when applying the assessment frameworks. Views differed among delegations as to whether proportionality should be reflected through a risk-based approach or whether all stages of the assessment frameworks should be completed with the same level of detail, irrespective of the scale of the proposed activity. Some delegations supported a case-by-case approach, under which the level of detail would be determined by the competent authority according to the nature and potential risks of the proposed activity. Other delegations emphasized that all stages of the assessment frameworks should be completed and that the level of detail required within each stage should not vary according to project scale alone, noting that risk cannot be determined solely by the quantity of material involved.

21 The Group recognized that, given the diversity of potential marine geoengineering activities and associated risks, it may not be appropriate or feasible to prescribe a uniform level of detail applicable to all techniques. The Group further recognized that the differing views would require further discussion before determining whether and how proportionality should be reflected in the assessment frameworks. It further noted that issues relating to scale, uncertainty and the depth of assessment would benefit from continued scientific consideration.

22 The Group considered the consistency of the assessment frameworks with annex 5 of the 2013 amendment. Delegations noted that paragraphs 2 and 3 of annex 5 clarify the relationship between Specific Assessment Frameworks and the general assessment requirements. The Group emphasized the importance of ensuring consistency between the assessment frameworks and annex 5 throughout their continued development. The Group agreed that consistency with annex 5 should remain a guiding principle in the further development of the assessment frameworks and that the legal and policy considerations identified during its discussions should be communicated to the Scientific Groups.

23 The Group also considered comments relating to figure 1 of document LC/SG 49/3, which illustrates the overall assessment process. Delegations identified several implementation-related considerations, including the iterative nature of the assessment process, the relationship between post-approval monitoring and earlier assessment stages, the integration of risk management and contingency planning, and the need to ensure that the diagram accurately reflects the agreed regulatory process, without implying outcomes not agreed by the governing bodies. The Group agreed that these considerations should be communicated to the Scientific Groups for consideration during the continued development of the assessment frameworks.

24 The Group considered the consultation and decision-making provisions contained in the assessment frameworks. Delegations generally considered these provisions to be broadly consistent with annex 5 to the 2013 amendment and emphasized the importance of consultation with relevant stakeholders, engagement with potentially affected States, and appropriate consideration of consultation outcomes during the decision-making process. Some delegations suggested that certain provisions of annex 5, including those relating to consent and the possibility for affected States to seek independent expert advice, could be more clearly

reflected in the assessment frameworks. Other delegations emphasized that the assessment frameworks should avoid introducing expectations beyond those contained in annex 5 and should preserve flexibility for differing national environmental assessment and permitting systems. The Group agreed that any further refinement of these provisions should remain consistent with annex 5 while preserving flexibility for national implementation.

25 The Group also discussed possible approaches for promoting the implementation and communication of the assessment frameworks by Contracting Parties. Delegations considered a range of approaches, including adoption by resolution of the governing bodies, inviting Contracting Parties to use the assessment frameworks as guidance, and clarifying their relationship with annex 5 and the 2013 amendment. Delegations further discussed possible approaches to communication once the assessment frameworks are finalized, including requesting the Secretariat to promote awareness through circulars, public information materials, communication with relevant international organizations and processes, and participation in side events. Other delegations considered that extensive external communication may not be necessary, noting that Contracting Parties already closely follow developments under the LC/LP and that communication could follow the Secretariat's established practices for disseminating the outputs of the governing bodies. Delegations further emphasized that any communication should support the practical application of the assessment frameworks without implying legal obligations beyond those established under the Convention and Protocol.

26 The Group agreed that the legal and policy considerations identified during its discussions should be communicated to the Scientific Groups to support their ongoing technical review and further development of the assessment frameworks.

TOR 5 – Article 6*bis* listing and regulatory text

27 As per the TORs, the Group was instructed to identify options for the listing of new marine geoengineering techniques for the purposes of article 6*bis* of the 2013 amendment and to develop suitable regulatory text, where appropriate, by considering the potential regulation of each technique separately.

28 The Group generally expressed support for continuing to consider marine geoengineering techniques on a technique-by-technique basis, taking into account differing environmental risks, varying levels of scientific maturity, differing regulatory concerns and potential differences in climate effectiveness and scale. The Group agreed that different marine geoengineering techniques may raise distinct governance and regulatory considerations and may therefore require differing approaches under the LC/LP framework.

29 A number of delegations highlighted the role of domestic regulatory frameworks and noted that marine geoengineering-related activities may already be addressed through national legislation and permitting systems.

30 In addition to the approach outlined above, the Group also considered a proposal that would apply a different regulatory approach to marine geoengineering activities. In this context, the Group discussed precautionary approaches, including a prohibition on activities unless expressly authorized. Under the proposal, marine scientific research would continue to be permitted, provided that it had been assessed in accordance with the applicable assessment frameworks.

31 Many delegations expressed support for further consideration of such a precautionary approach, considering that it could provide a more consistent and precautionary framework for the assessment, control and potential future deployment of marine geoengineering techniques.

These delegations noted, however, that further discussion would be required regarding its design, implementation and legal implications.

32 Other delegations expressed concerns regarding this approach, including its relationship with domestic permitting authorities, its interaction with the existing article 6*bis* framework, the potential for creating overlapping regulatory regimes, its implications for Contracting Parties that have already accepted the 2013 amendment, and whether it would provide additional legal clarity beyond the framework.

33 The Group agreed that the discussions under TOR 5 identified issues that would require further consideration before suitable regulatory text could be developed. Accordingly, no regulatory text was prepared at this stage. The Group further agreed that priority should remain on the completion of the assessment frameworks, and that consideration of broader regulatory approaches should continue as part of its future work.

TOR 6 – Interpretation of annex 5, paragraph 8.4

34 As per the TORs, the Group was instructed to discuss the interpretation of paragraph 8.4 of annex 5 to the 2013 amendment, with a view to understanding its implications and reaching a common interpretation. In doing so, the Group was instructed to take into account that economic interests should not influence the design, conduct and/or outcome of the proposed activity and that there should be no financial and/or economic gain arising directly from the experiment or its outcomes.

35 To facilitate the discussions, Canada and the United Kingdom submitted a joint document identifying a number of key interpretative questions relating to paragraph 8.4. Drawing on these questions, the Co-Chairs structured the discussion under TOR 6 around a series of interpretative questions. The Group subsequently requested that these questions be reflected in the report for transparency. Accordingly, the discussions under TOR 6 are presented below, following the interpretative questions considered by the Group.

36 At the outset of the discussion on this question, one delegation expressed the view that demonstration activities and pilot projects should not fall within the concept of "legitimate scientific research", referring to its national interpretation of the term "research" and to the understanding of the term under UNCLOS, including in the context of part XI relating to deep seabed mining. There was limited discussion on this point, but not all delegations shared this view.

Interpretative question 1: Do delegations agree that paragraph 8.4 is not intended to prohibit private entities from conducting research or financing research activities?

37 The Group first considered whether paragraph 8.4 is intended to prohibit private entities from conducting legitimate scientific research or financing research activities. Delegations generally agreed that paragraph 8.4 plays an important role in preserving the scientific integrity of legitimate scientific research. A majority of delegations considered that the provision establishes a substantive safeguard intended to prevent economic interests from influencing the design, conduct or outcomes of research activities, rather than restricting participation solely on the basis of the identity of the entity conducting or financing the research. Some delegations nevertheless observed that paragraph 8.4 may restrict certain financing arrangements by requiring that there be no direct financial or economic gain arising from the experiment or its outcomes. Some delegations, however, considered that paragraph 8.4 should primarily operate as a consideration to be applied through domestic assessment and permitting processes.

38 Many delegations further emphasized the importance of maintaining a clear distinction between legitimate scientific research and commercial activities, including activities that generate financial or economic gain from research outcomes. Some delegations considered that private funding does not necessarily compromise scientific integrity and that financing arrangements should be assessed in light of the specific circumstances of the activity and any safeguards in place to preserve research independence.

39 The Group generally agreed that paragraph 8.4 is intended to preserve the scientific integrity of legitimate scientific research. However, differing views remained regarding its legal effect and practical application, noting that further discussion would be required before reaching a common interpretation of this aspect of paragraph 8.4.

Interpretative question 2: Do delegations agree that "economic interests" include both direct and indirect financial interests, whether public or private?

40 The Group considered whether the term "economic interests" in paragraph 8.4 should be understood as including both direct and indirect financial interests, whether public or private. Delegations recognized that economic interests may arise in different forms and discussed whether public and private financial interests should be treated similarly for the purposes of paragraph 8.4. Many delegations considered that the relevant consideration is whether such interests have the potential to influence the design, conduct or outcomes of the scientific research, irrespective of whether they are public or private. Some delegations, however, considered that public and private financial interests should not necessarily be treated in the same manner, noting that public funding may pursue broader public policy objectives and should not automatically be regarded as giving rise to the same concerns as private financial interests. Some delegations further considered that the interpretation and application of this concept should ultimately be assessed by domestic authorities in light of the specific circumstances of each activity.

41 The Group noted that differing views remained regarding the scope of the term "economic interests" and its practical application and agreed that more discussion was needed on this point.

Interpretative question 3: How should paragraph 8.4 be applied in practice?

42 The Group considered how paragraph 8.4 should be applied by domestic consenting authorities. Some delegations considered that the potential influence of financing arrangements on scientific integrity should be assessed on a case-by-case basis, taking into account the specific circumstances of the activity and any safeguards in place. Other delegations emphasized that paragraph 8.4 establishes substantive limitations that should guide permitting decisions irrespective of the financing model. The Group also discussed whether additional guidance could assist domestic authorities in ensuring greater consistency in the application of paragraph 8.4, while preserving national discretion.

43 The Group noted the broad support for case-by-case assessment by domestic authorities. However, differing views remained regarding the extent to which additional guidance may be required to support consistent implementation among Contracting Parties.

Interpretative question 4: Can a research or development activity still be considered legitimate scientific research where it receives financial gain from its outputs, including through carbon credits?

44 The Group considered whether research activities receiving financial or economic gain from their outputs, including through the sale or pre-sale of carbon credits, may qualify as

legitimate scientific research. A majority of delegations considered that the sale or pre-sale of carbon credits is inconsistent with paragraph 8.4, particularly where such arrangements create financial incentives linked to the expected outcomes of research activities. These delegations emphasized that financial gain arising from research outputs may undermine the distinction between legitimate scientific research and commercial activities.

45 Some delegations considered that carbon credits would not necessarily constitute a contravention of paragraph 8.4 in all circumstances. Accordingly, the compatibility of such arrangements with legitimate scientific research would depend on the specific circumstances of the activity and the safeguards in place to preserve scientific integrity and independence. Many delegations also indicated that a distinction should be drawn between the use of carbon credits to support or finance research activities and their use as part of a broader commercial business model.

46 Other delegations considered that an activity receiving financial gain from outputs such as carbon credits should not qualify as legitimate scientific research and would therefore be inconsistent with paragraph 8.4. Some delegations considered that such activities may nevertheless qualify as legitimate scientific research in certain circumstances, provided that appropriate safeguards are in place to preserve scientific integrity and independence and that any potential conflicts of interest are appropriately addressed.

47 The Group recognized that further discussion would be required before reaching a common interpretation of paragraph 8.4 in relation to financial or economic gain arising from research activities, including activities involving carbon credits.

Interpretative question 5: What safeguards may be necessary where private funding is involved?

48 The Group discussed a range of safeguards that could support the implementation of paragraph 8.4 where private funding was involved. Delegations expressed broad support for safeguards intended to preserve scientific integrity, transparency and independence. Examples mentioned included declarations of interests or conflicts of interest, independent oversight and verification, transparency of methodologies and data, disclosure of research outcomes, and separation of roles between researchers, verifiers and funding entities. There was broad support for the value of such safeguards in preserving scientific integrity. The Group further agreed that the proposed safeguards should be recorded as examples of elements for future consideration, while recognizing that they do not represent agreed guidance and would require further discussion before any conclusions could be reached.

TOR 7 – LC/LP and other international processes (including BBNJ)

49 As per the TORs, the Group was instructed to explore the synergies and complementarity of the BBNJ Agreement and the LC/LP with regard to marine geoengineering.

50 At its first virtual meeting on the topic of TOR 7, the Group had decided that this task was of lower priority than some of the other more pressing issues, and that a list of questions to be answered about the interaction between the BBNJ Agreement and the work on marine geoengineering by the LC/LP could be developed. The delegation of Norway, assisted by others, provided the Group with an initial list of questions that were discussed over the next meetings.

51 Some delegations were of the view that the questions were outside of the scope of the work of the Group, as they pertained to a much larger part of the LC/LP than only marine geoengineering, and could therefore not be answered within the confines of marine geoengineering only, and one delegation expressed the view that the questions were not yet ready for wider consideration. The questions, as finalized by the Group, are set out in annex 3.

Proposal

52 The Group concluded that, while significant progress had been made under its terms of reference, a number of scientific, legal and policy issues remained and would require further work.

Action requested of the governing bodies

53 The governing bodies are invited to consider the information provided in this report, in general, and, in particular, to note the progress made by the Group and comment as they deem appropriate.

ANNEX 1

DRAFT RESOLUTION LC-LP. ... (2026)

**ON THE REVISED ASSESSMENT FRAMEWORK FOR SCIENTIFIC RESEARCH
INVOLVING OCEAN FERTILIZATION AND ON THE NEW ASSESSMENT
FRAMEWORKS FOR SCIENTIFIC RESEARCH INVOLVING OCEAN
ALKALINITY ENHANCEMENT AND OCEAN SINKING OF BIOMASS**

(Adopted on October 2026)

THE FOURTY-EIGHTH CONSULTATIVE MEETING OF THE CONTRACTING PARTIES TO THE LONDON CONVENTION AND THE TWENTY-FIRST MEETING OF THE CONTRACTING PARTIES TO THE LONDON PROTOCOL

RECALLING the objectives of the London Convention and the London Protocol,

NOTING the findings of GESAMP Working Group 41 on Ocean Interventions for Climate Change Mitigation of 2019 and 2025,

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

NOTING the Statements on marine geoengineering (MGE) of 2022, 2023 and 2025 by the governing bodies,

URGING Contracting Parties to the London Protocol to accept as well as to implement the 2013 amendment, while recognizing the guidance provided in the 2008 and 2010 resolutions,

RECOGNIZING the need for high-quality scientific research on marine geoengineering,

ENCOURAGING Contracting Parties to support further study and enhance understanding of MGE,

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

BEING AWARE of scientific papers on the growing number of MGE activities including those conducted by private or commercial companies,

NOTING the need for activities to be consistent with the applicable provisions and instruments under the London Convention and the London Protocol,

RECOGNIZING the need for access to information and resources for all, notably developing countries and especially least developed countries (LDCs) and small island developing States (SIDS), with regard to MGE techniques and the use of the three Assessment Frameworks,

BEING AWARE that the Contracting Parties to the London Protocol may consider that each of the three Assessment Frameworks should be applied as "specific assessment framework pursuant to article 6*bis* paragraph 2 of the 2013 amendment once the 2013 amendment has entered into force and the respective MGE technique is listed in annex 4 of this amendment, allowing for revision of the titles and/or the content as necessary,

NOTING that the three AF may also be valuable to Contracting Parties when assessing research projects involving ocean fertilization, ocean alkalinity enhancement and ocean sinking of biomass which are not within scope of the London Convention and London Protocol,

1 ADOPT the revised "Assessment Framework for Scientific Research Involving Ocean Fertilization", the "Assessment Framework for Scientific Research involving Ocean Alkalinity Enhancement" and the "Assessment Framework for Scientific Research involving Ocean Sinking of Biomass", as set out in annexes 1-3 hereto;

2 INVITE the Contracting Parties to the London Convention and the London Protocol to assess scientific research proposals on a case-by-case basis using the respective Assessment Framework as best available practice;

3 ENCOURAGE Contracting Parties to take into account the respective Assessment Framework to determine, with utmost caution, whether a proposed activity constitutes legitimate scientific research and is not contrary to the aims of the London Protocol or the London Convention;

4 RECOGNIZE the current limits to scientific knowledge regarding the three MGE techniques and that activities employing such techniques should be limited to legitimate scientific research for the time being;

5 EMPHASIZE that timely notification and sharing of information would facilitate consistency in the application of the three Assessment Frameworks, taking into account their notification and consultation provisions;

6 ENCOURAGE Contracting Parties to provide information to the LC/LP Secretariat and the governing bodies about ongoing and planned marine geoengineering activities, and the application of the three Assessment Frameworks within their jurisdiction;

7 INVITE Contracting Parties, on a continuing basis, to submit proposals to the GB for technical updates to the Assessment Frameworks for consideration by the Scientific Groups based on new and relevant scientific information and experience gained from applying the Assessment Frameworks;

8 REQUEST the Governing Bodies to consider the need to review the three Assessment Frameworks, on a continuing basis, at least every three years, in light of new and relevant scientific information and knowledge and in light of experience applying the Assessment Frameworks; and

9 EMPHASIZE that the London Convention and London Protocol Parties are continuing to evaluate additional options for effective governance of MGE.

ANNEX 2

Working definitions for the four prioritized Marine Geoengineering (MGE) techniques

Ocean alkalinity enhancement

Ocean alkalinity enhancement is any activity undertaken by humans to introduce matter to increase the alkalinity of seawater to enhance the uptake of atmospheric CO₂ by the ocean (i.e. change the air-to-sea CO₂ partial pressure gradient) or to counteract ocean acidification.

Ocean sinking of biomass

Ocean sinking of biomass for carbon storage is any activity undertaken by humans to introduce, including by sinking, biological matter, such as marine or terrestrial plant matter, into the sea to store carbon in the ocean. This definition does not include efforts to restore or create habitats such as mangroves, seagrass beds, salt marshes, and macroalgae beds.

Marine surface albedo modification

Marine surface albedo modification is any activity undertaken by humans that introduces matter to the ocean, including on or within sea ice or ocean surface waters, to modify the amount of solar radiation reflected by the ocean.

Marine cloud brightening

Draft definition from LC 46/WP.4: Marine cloud brightening is any activity undertaken by humans that introduces matter, such as aerosols, into the atmosphere above the ocean to increase the reflectivity or modify longevity of marine clouds or fog, or to create marine clouds or fog.

ANNEX 3

List of guiding questions to explore the interaction between the BBNJ Agreement and the work of the LC/LP on Marine Geoengineering (MGE)

- 1 Does the regulation of MGE under the LC/LP meet the objective of the BBNJ agreement "conservation and sustainable use of marine biological diversity", including consideration of article 7 of the BBNJ Agreement?
- 2 What are the implications of article 5, paragraph 2 of the BBNJ Agreement on the "not undermine"- obligation with regard to MGE regulation under LC/LP? What interests does LC/LP need to preserve?
- 3 What are the implications of the obligation pursuant to article 8, paragraph 2 of the BBNJ Agreement to promote the objective of the BBNJ Agreement with respect to the work of LC/LP on MGE?
- 4 What are the implications of the obligation pursuant to article 8, paragraph 3 of the BBNJ Agreement to promote the "international cooperation on marine scientific research" with respect to the work of LC/LP on MGE, including consideration of part XIII of UNCLOS and article 14 of the London Protocol?
- 5 How are parts III (area-based management tools, including MPAs), IV (environmental impact assessment), and V (capacity-building and transfer of marine technology) of the BBNJ Agreement relevant to the LC/LP's work on marine geoengineering (MGE)?
- 6 Is part II (marine genetic resources, including the fair and equitable sharing of benefits) of the BBNJ Agreement relevant to the LC/LP's work on MGE and, if so, how?
- 7 How could part III, IV and V of the BBNJ Agreement impact the work of the LC/LP with regard to MGE? In particular:
 - .1 Is there a legal obligation to have equivalent EIA standards for the assessment of MGE projects under LC/LP? If so:
 - .2 Do annex 5 of the 2013 amendment and the three Assessment Frameworks on MGE techniques under development fulfil this?
 - .3 How and by which process will the legal test for equivalence in art. 29 of the BBNJ Agreement be clarified? And how can it be ensured that the LC/LP's views on this test are taken into account in this clarification? How could the LC/LP consider Area-Based Management Tools (ABMTs), including Marine Protected Areas (MPAs), proposed or adopted under the BBNJ Agreement with regard to MGE?
 - .4 What processes or mechanisms could the LC/LP develop to take into account ABMTs, including MPAs, established under the BBNJ Agreement when assessing MGE activities?
 - .5 What are the possible implications of the provisions in part V of the BBNJ Agreement on existing mechanisms for capacity-building and transfer of marine technology under the LC/LP, taking into account article IX of the London Convention and article 13 of the London Protocol?