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FIRST MEETING OF THE LP
INTERSESSIONAL LEGAL AND
RELATED ISSUES WORKING GROUP ON
OCEAN FERTILIZATION
11 – 13 February 2009
Agenda item 5

LP/CO2 2/5
20 February 2009
Original: ENGLISH

REPORT OF THE 1ST MEETING OF THE LP INTERSESSIONAL LEGAL AND RELATED ISSUES WORKING GROUP ON OCEAN FERTILIZATION

1 INTRODUCTION

1.1 The 1st Meeting of the LP Intersessional Legal and Related Issues Working Group on Ocean Fertilization was convened at IMO Headquarters, London, from 11 to 13 February 2009.

1.2 Delegations from the following 17 Contracting Parties to the London Convention attended the meeting:

| | |
|-----------|----------------|
| ARGENTINA | MEXICO |
| AUSTRALIA | NETHERLANDS |
| BRAZIL | NORWAY |
| CANADA | PERU |
| CHILE | SOUTH AFRICA |
| CHINA | SPAIN |
| DENMARK | UNITED KINGDOM |
| GERMANY | UNITED STATES |
| JAPAN | |

1.3 Delegations from the following 13 Contracting Parties to the London Protocol also attended the meeting:

| | |
|-----------|----------------|
| AUSTRALIA | NETHERLANDS |
| CANADA | NORWAY |
| CHINA | SAUDI ARABIA |
| DENMARK | SOUTH AFRICA |
| GERMANY | SPAIN |
| JAPAN | UNITED KINGDOM |
| MEXICO | |

1.4 An observer from the following State that is neither a Contracting Party to the London Convention nor to the London Protocol also attended:

SYRIAN ARAB REPUBLIC

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1.5 Representatives from the following two United Nations organizations attended the meeting:

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION – INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (UNESCO-IOC)

UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP) – SECRETARIAT OF THE CONVENTION ON BIOLOGICAL DIVERSITY

1.6 Observers from the following intergovernmental organizations attended the meeting:

NORTH PACIFIC MARINE SCIENCE ORGANIZATION (PICES)
COMMISSION FOR THE PROTECTION OF THE MARINE ENVIRONMENT OF THE NORTH-EAST ATLANTIC (OSPAR COMMISSION)

1.7 Observers from the following three international non-governmental organizations also attended the meeting:

GREENPEACE INTERNATIONAL
ADVISORY COMMITTEE ON PROTECTION OF THE SEA (ACOPS)
INTERNATIONAL EMISSIONS TRADING ASSOCIATION (IETA)

OPENING OF THE MEETING

1.8 In opening the proceedings, the Secretary, Mr René Coenen, welcomed all participants to the 1st meeting of the Intersessional Legal and Related Issues Working Group on Ocean Fertilization under the London Protocol.

TERMS OF REFERENCE

1.9 The Working Group noted that, in October 2008, the governing bodies adopted resolution LC-LP.1(2008) on the regulation of ocean fertilization and had agreed to further consider a potential legally binding resolution or an amendment to the London Protocol on ocean fertilization at their next session in 2009. Those Meetings identified in this regard the need for preparatory work in the intersessional period on legal/administrative issues related to ocean fertilization (LC 30/16, paragraph 4.15). Consequently, the Intersessional Legal and Related Issues Working Group on Ocean Fertilization was instructed to commence the development of:

- .1 options to clarify/interpret/amend the London Protocol for the purpose of regulation of ocean fertilization; and
- .2 options to clarify/interpret the London Convention for the purpose of regulation of ocean fertilization.

ELECTION OF CHAIRMAN

1.10 The Working Group unanimously elected Ms Wini Broadbelt (Netherlands) as its Chairman.

ADOPTION OF THE AGENDA AND ORGANIZATION OF WORK

1.11 The agenda for the meeting (LP/CO2 2/1) was structured in accordance with the terms of reference and was adopted, as shown at annex 1 to this report.

2 INTERIM REPORT FROM THE MEETING OF THE INTERSESSIONAL TECHNICAL WORKING GROUP ON OCEAN FERTILIZATION (9 to 13 FEBRUARY 2009)

2.1 The Working Group noted that the Intersessional Technical Working Group on Ocean Fertilization was held, concurrently, to conduct preparatory work on the technical/scientific issues associated with ocean fertilization. Specifically, that Working Group was instructed to:

- .1 commence the development of an assessment framework on ocean fertilization ensuring compatibility with Annex 2 to the London Protocol; and
- .2 prepare, with the assistance of experts, as required, and in co-operation with relevant international organizations, as appropriate, a document, for the information of all Contracting Parties, summarizing the current state of knowledge on ocean fertilization, relevant to assessing impacts on the marine environment, taking into account the work done on this issue in other fora.

2.2 The Chairman of the Intersessional Technical Working Group on Ocean Fertilization, Dr Chris Vivian (United Kingdom) informed the Legal Working Group of the progress made thus far in his Group. That Group had agreed to model the assessment framework on ocean fertilization after the “Risk Assessment and Management Framework for CO₂ Sequestration in Sub-seabed Geological Structures (CS-SSGS), adopted in 2006.

2.3 Dr Vivian informed the Working Group that there had been some debate in the Technical Working Group on the adequacy of the definition of ocean fertilization as used in resolution LC-LP.1(2008) (LC/SG CO2 3/5, paragraphs 2.7 and 2.8).

2.4 Furthermore, he also informed the Working Group that the following issues had been raised but had not been addressed by the Technical Working Group:

- .1 what is “contrary to the aims of the London Convention/Protocol”; and
- .2 who would have the responsibility for carrying out risk assessments on ocean fertilization.

3 REGULATION OF OCEAN FERTILIZATION

3.1 The German delegation gave a brief presentation on the German/Indian LOHAFEX iron fertilization experiment which was currently being conducted in the Southern Atlantic Ocean and on the decisions taken by the responsible German Ministry regarding this experiment.

3.2 Clarifications were given in a short question and answer session and the German delegation offered to request the Alfred Wegener Institute to present the first scientific results to the next session of the Scientific Groups in May 2009. The progress with the experiment can also be followed by visiting <http://www.awi.de>.

3.3 The Australian delegation informed the meeting that government officials had been approached by a representative of a university in Australia who indicated that they intend to apply for approval to conduct a nitrogen/phosphorus addition experiment within Australia’s exclusive economic zone. No formal application had yet been received but the potential applicant intended to use the outcomes of the Technical Working Group session this week to aid the preparation of their application.

3.4 The observer from Greenpeace International suggested that proposals for legitimate scientific research on ocean fertilization must meet, as a minimum, a set of seven principles or conditions (Justification; Consultation; Assessment; Regulation; Transparency; Liability and redress; and Non-commerciality).

3.5 Based on the various options developed in preparation of the current resolution LC-LP.1(2008), the Working Group identified the following eight options for further review:

| | |
|----------|--|
| Option 1 | Statement of concern |
| Option 2 | Simple resolution |
| Option 3 | Simple resolution intending to build upon resolution LC-LP.1(2008) |
| Option 4 | Interpretative resolution |
| Option 5 | An amendment to Annex 1 to the London Protocol |
| Option 6 | Amendments to Annex 1 and the definition of dumping |
| Option 7 | Amendments to the definition of dumping and exclusions for dumping |
| Option 8 | A new, stand-alone article in the Protocol on ocean fertilization |

3.6 Based on these discussions, the Working Group established two drafting groups:

Drafting Group 1 (Resolution applicable to LC/LP under options 3 and 4) under the lead of Miss Carla Pike (United Kingdom).

Drafting Group 2 (Amendments under options 5 to 8) under the lead of Ms Anne Daniel (Canada).

3.7 Both drafting groups were instructed to:

- .1 draft text on ocean fertilization, taking into account resolution LC-LP.1(2008);
- .2 prepare, where necessary, an explanation of the draft text;
- .3 describe all relevant procedural requirements and implications; and
- .4 list the points to note.

OUTCOME OF THE DRAFTING GROUPS

3.8 The Chairpersons of the two drafting groups introduced their reports.

3.9 The Working Group agreed to retain the definition of ocean fertilization from resolution LC-LP.1(2008) as the current working definition. The Scientific Groups may review this definition. Some proposals by members of the Legal Working Group as shown in the options use various formulations of a possible definition and are reflected for further consideration.

3.10 The Working Group agreed to forward the options 1 and 2, which were not discussed in detail at this session, as well as the results of the two drafting groups concerning the options 3 to 8 to the next session of the governing bodies in October 2009 for their consideration. All options are shown in the annexes 2 to 9 to this report.

4 ANY OTHER BUSINESS

4.1 The Working Group was informed that the London Protocol would enter into force for the Republic of Korea on 21 February 2009, bringing the total number of Protocol Parties to **37**.

4.2 The Working Group noted that in accordance with Article 21 of the Protocol, any proposal by Contracting Parties for amendments would have to be submitted six months in advance, i.e. by Friday, 24 April 2009, at the latest, for consideration by the 4th Meeting of Contracting Parties (26 to 30 October 2009).

4.3 The following two issues were noted:

- .1 what is “contrary to the aims of the Convention/Protocol”?; and
- .2 who should have the responsibility for carrying out risk assessments on ocean fertilization?

No substantive discussion took place and the Working Group recommended that delegations reflect on these issues when preparing for the next session of the governing bodies in October 2009.

4.4 The observer from Greenpeace International raised the issue that the focus of this session had primarily been on the legal aspects related to ocean fertilization, but that the following policy issues should not be forgotten:

- .1 the LOHAFEX experiment had learned that the sharing of information in all stages of an ocean fertilization project (preparation, assessment, execution and evaluation) was crucial;
- .2 the LOHAFEX experiment had also learned that the issue of liability should not be forgotten, i.e. the monitoring period under this experiment was planned for 40 days after completion of the fertilization. However, what would happen if matters did not develop as anticipated?
- .3 the Parties to the Convention on Biological Diversity had in their decision IX/16, paragraph 4, concerning a moratorium on ocean fertilization activities explicitly referred to a prohibition of research for “generating and selling offsets or any other commercial purposes”, whereas resolution LC-LP.1(2008) had made no explicit reference to research for commercial purposes, while ruling it out. This issue would need to be addressed in any future decision under the London Convention and Protocol.

4.5 The Working Group took note of this concern.

4.6 One delegation expressed the view that ocean fertilization research for commercial purposes fell outside the remit of the London Convention and Protocol.

4.7 The Working Group took note of the concern expressed by the delegation of Argentina on the issue of “scale” in relation to ocean fertilization experiments. In this regard it was noted that this issue, being one of a range of issues discussed, is part of the ongoing discussions in the intersessional period (e.g., the Scientific Groups in May 2009). The results of these discussions may play a role in the further development of the legal options as identified by the Legal Working Group in this report.

5 CONSIDERATION AND ADOPTION OF THE REPORT

5.1 The LP Intersessional Legal and Related Issues Working Group on Ocean Fertilization adopted the report of its first meeting on Friday, 13 February 2009.

5.2 The Working Group expressed its appreciation for the excellent leadership of Ms Wini Broadbelt in conducting this session, as well as for Ms Anne Daniel and Miss Carla Pike concerning the expeditious manner in which they had led their respective drafting groups.

ANNEX 1

**AGENDA FOR THE LP INTERSESSIONAL LEGAL AND RELATED ISSUES
WORKING GROUP ON OCEAN FERTILIZATION**

- 1 Adoption of the agenda
- 2 Interim report from the meeting of the Intersessional Technical Working Group on Ocean Fertilization (9 to 13 February 2009)
- 3 Regulation of Ocean Fertilization:
 - .1 development of options to clarify/interpret/amend the London Protocol
 - .2 development of options to clarify/interpret the London Convention
- 4 Any other business
- 5 Consideration and adoption of the report

ANNEX 2**OPTION 1: (STATEMENT OF CONCERN)**

1 Large-scale fertilization of ocean waters using micro-nutrients such as iron to stimulate phytoplankton growth in order to sequester carbon dioxide is the subject of recent commercial interest. The Scientific Groups of the London Convention and Protocol took the view that knowledge about the effectiveness and potential environmental impacts of ocean iron fertilization currently was insufficient to justify large-scale operations.

2 According to the Intergovernmental Panel on Climate Change (IPCC), iron fertilization of the oceans may offer a potential strategy for removing carbon dioxide from the atmosphere by stimulating the growth of phytoplankton and thereby sequestering the carbon dioxide in the form of particulate organic carbon. However, the IPCC also stated that ocean iron fertilization remains largely speculative, and many of the environmental side effects have yet to be assessed.

3 The Scientific Groups of the London Convention and Protocol noted with concern the potential for large-scale ocean iron fertilization to have negative impacts on the marine environment and human health. They, therefore, recommended that any such operations be evaluated carefully to ensure, among other things, that such operations were not contrary to the aims of the London Convention and Protocol (Source: LC/SG 30/14, paragraphs 2.23 to 2.25).

ANNEX 3

OPTION 2: (SIMPLE RESOLUTION)**RESOLUTION LC-LP.1(2008)
ON THE REGULATION OF OCEAN FERTILIZATION
(Adopted on 31 October 2008)****THE THIRTIETH CONSULTATIVE MEETING OF THE CONTRACTING PARTIES
TO THE LONDON CONVENTION AND THE THIRD MEETING OF THE
CONTRACTING PARTIES TO THE LONDON PROTOCOL,**

RECALLING the objectives of the London Convention¹ and Protocol²;

NOTING that the ‘Statement of concern’ on large-scale ocean fertilization by the Scientific Groups in June 2007 endorsed by the 29th Consultative Meeting and the 2nd Meeting of Contracting Parties in November 2007, and expanded on by the Scientific Groups in May 2008, remains valid;

NOTING decision IX/16 on 30 May 2008 of the 9th Meeting of the Conference of the Parties to the Convention on Biological Diversity which “requests Parties and urges other Governments, in accordance with the precautionary approach, to ensure that ocean fertilization activities do not take place until there is an adequate scientific basis on which to justify such activities, including assessing associated risks, and a global, transparent and effective control and regulatory mechanism is in place for these activities; with the exception of small scale scientific research studies within coastal waters”;

NOTING United Nations General Assembly resolution 62/215, concerning “Oceans and the law of the sea”, adopted on 22 December 2007, which in its paragraph 98 “encourages States to support the further study and enhance understanding of ocean iron fertilization”;

NOTING that a number of other international organizations are considering the issue of ocean fertilization;

NOTING that knowledge on the effectiveness and potential environmental impacts of ocean fertilization is currently insufficient to justify activities other than legitimate scientific research;

¹ “Contracting Parties shall individually and collectively promote the effective control of all sources of pollution of the marine environment, and pledge themselves especially to take all practicable steps to prevent the pollution of the sea by the dumping of waste and other matter that is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.” (Article II of the London Convention).

² “Contracting Parties shall individually and collectively protect and preserve the marine environment from all sources of pollution and take effective measures, according to their scientific, technical and economic capabilities, to prevent, reduce and where practicable eliminate pollution caused by dumping or incineration at sea of wastes or other matter. Where appropriate, they shall harmonize their policies in this regard.” (Article 2 of the London Protocol).

1. **AGREE** that the scope of the London Convention and Protocol includes ocean fertilization activities;
2. **AGREE** that for the purposes of this resolution, ocean fertilization is any activity undertaken by humans with the principle intention of stimulating primary productivity in the oceans³;
3. **AGREE** that in order to provide for legitimate scientific research, such research should be regarded as placement of matter for a purpose other than the mere disposal thereof under Article III(1)(b)(ii) of the London Convention and Article 1.4.2.2 of the London Protocol;
4. **AGREE** that scientific research proposals should be assessed on a case-by-case basis using an assessment framework to be developed by the Scientific Groups under the London Convention and Protocol;
5. **AGREE** that the aforementioned assessment framework should include, *inter alia*, tools for determining whether the proposed activity is contrary to the aims of the Convention and Protocol;
6. **AGREE** that until specific guidance is available, Contracting Parties should be urged to use utmost caution and the best available guidance⁴ to evaluate the scientific research proposals to ensure protection of the marine environment consistent with the Convention and Protocol;
7. **AGREE** that for the purposes of this resolution, legitimate scientific research should be defined as those proposals that have been assessed and found acceptable under the assessment framework;
8. **AGREE** that, given the present state of knowledge, ocean fertilization activities other than legitimate scientific research should not be allowed. To this end, such other activities should be considered as contrary to the aims of the Convention and Protocol and not currently qualify for any exemption from the definition of dumping in Article III(1)(b) of the Convention and Article 1.4.2 of the Protocol;
9. **AGREE** that this resolution should be reviewed at appropriate intervals in light of new and relevant scientific information and knowledge.

³ Ocean fertilization does not include conventional aquaculture, or mariculture, or the creation of artificial reefs.

⁴ Such guidance includes, but is not limited to: previous agreements of the Consultative Meetings/Meetings of Contracting Parties; Annex III to the London Convention and Annex 2 to the London Protocol; the considerations for evaluating ocean fertilization proposals developed by the Scientific Groups (LC/SG 31/16, annex 2, appendix 3); and the Revised Generic Waste Assessment Guidance (LC 30/16).

ANNEX 4

**OPTION 3: (SIMPLE RESOLUTION INTENDING TO BUILD UPON
RESOLUTION LC-LP.1(2008))****RESOLUTION XXXX ON [THE REGULATION OF OCEAN FERTILIZATION]
(ADOPTED ON XXXX)****THE XXXX CONSULTATIVE MEETING OF THE CONTRACTING PARTIES TO THE
LONDON CONVENTION AND THE XXXX MEETING OF THE CONTRACTING
PARTIES TO THE LONDON PROTOCOL,**

RECALLING the objectives of the London Convention¹ and Protocol²;

RECALLING resolution LC-LP.1(2008) of the 30th Consultative Meeting and the 3rd Meeting of Contracting Parties in October 2008 on the Regulation of Ocean Fertilization, in which the Parties agreed that “given the present state of knowledge, ocean fertilization activities other than legitimate scientific research should not be allowed. To this end, such other activities should be considered as contrary to the aims of the Convention and Protocol and not currently qualify for any exemption from the definition of dumping in Article III(1)(b) of the Convention and Article 1.4.2 of the Protocol;

NOTING that the 30th Consultative Meeting and the 3rd Meeting of Contracting Parties agreed to further consider a potential legally binding resolution or an amendment to the London Protocol at its next session in 2009;

NOTING that the ‘Statement of concern’ on large-scale ocean fertilization by the Scientific Groups in June 2007 endorsed by the 29th Consultative Meeting and the 2nd Meeting of Contracting Parties in November 2007, and expanded on by the Scientific Groups in May 2008, remains valid;

NOTING decision IX/16 on 30 May 2008 of the 9th Meeting of the Conference of the Parties to the Convention on Biological Diversity which “requests Parties and urges other Governments, in accordance with the precautionary approach, to ensure that ocean fertilization activities do not take place until there is an adequate scientific basis on which to justify such activities, including assessing associated risks, and a global, transparent and effective control and regulatory mechanism is in place for these activities; with the exception of small scale scientific research studies within coastal waters”;

¹ “Contracting Parties shall individually and collectively promote the effective control of all sources of pollution of the marine environment, and pledge themselves especially to take all practicable steps to prevent the pollution of the sea by the dumping of waste and other matter that is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.” (Article II of the London Convention).

² “Contracting Parties shall individually and collectively protect and preserve the marine environment from all sources of pollution and take effective measures, according to their scientific, technical and economic capabilities, to prevent, reduce and where practicable eliminate pollution caused by dumping or incineration at sea of wastes or other matter. Where appropriate, they shall harmonize their policies in this regard.” (Article 2 of the London Protocol).

NOTING United Nations General Assembly resolution 63/111, concerning “Oceans and the law of the sea”, adopted on 5 December 2008, which in its paragraph 115 “welcomes resolution LC-LP.1(2008)”;

NOTING that a number of other international organizations are considering the issue of ocean fertilization;

NOTING that knowledge on the effectiveness and potential environmental impacts of ocean fertilization is currently insufficient to justify activities other than legitimate scientific research;

1. **AGREE** that the scope of the London Convention and Protocol includes ocean fertilization activities;
2. **AGREE** that for the purposes of this resolution, ocean fertilization is any activity undertaken by humans with the intention of stimulating primary productivity in the oceans³;
3. **AGREE** that in order to provide for legitimate scientific research, such research should be regarded as placement of matter for a purpose other than the mere disposal thereof under Article III(1)(b)(ii) of the London Convention and Article 1.4.2.2 of the London Protocol;
4. **AGREE** that scientific research proposals should be assessed on a case-by-case basis using an assessment framework to be developed by the Scientific Groups under the London Convention and Protocol;
5. **AGREE** that the aforementioned assessment framework should include, *inter alia*, tools for determining whether the proposed activity is contrary to the aims of the Convention and Protocol;
6. **AGREE** that until the aforementioned assessment framework is available, Contracting Parties should be urged to use utmost caution and the best available guidance⁴ to evaluate the scientific research proposals to ensure protection of the marine environment consistent with the Convention and Protocol;
7. **AGREE** that for the purposes of this resolution, legitimate scientific research should be defined as those proposals that have been assessed and found acceptable under the aforementioned assessment framework;
8. **AGREE** that, given the present state of knowledge, ocean fertilization activities other than legitimate scientific research should not be allowed;

³ Ocean fertilization does not include conventional aquaculture, or mariculture, or the creation of artificial reefs.

⁴ Such guidance includes, but is not limited to: previous agreements of the Consultative Meetings/Meetings of Contracting Parties; Annex III to the London Convention and Annex 2 to the London Protocol; the considerations for evaluating ocean fertilization proposals developed by the Scientific Groups (LC/SG 31/16, annex 2, appendix 3); and the Revised Generic Waste Assessment Guidance (LC 30/16).

9. AGREE, in accordance with the precautionary approach, [to a suspension of all ocean fertilization activities other than legitimate scientific research][that all ocean fertilization activities other than legitimate scientific research are not allowed]. This is on the basis that ocean fertilization activities other than legitimate scientific research are contrary to the aims of the Convention and Protocol and not currently able to qualify for any exemption from the definition of dumping in Article III(1)(b) of the Convention and Article 1.4.2 of the Protocol;

[**10. AGREE** that this suspension of ocean fertilization activities other than legitimate scientific research will continue until there is an adequate scientific basis on which to justify such activities, including assessing associated risks, and until it is lifted by agreement of the Parties;

11. AGREE that this suspension of ocean fertilization activities other than legitimate scientific research should be reviewed at appropriate intervals in light of new and relevant scientific information and knowledge;]

[**12. AGREE** that the London Convention and Protocol constitute a global, transparent and effective control and regulatory mechanism for the purposes of regulating ocean fertilization activities, particularly in light of this resolution and the aforementioned assessment framework.]

EXPLANATION OF THE DRAFT TEXT

This resolution would constitute a non-legally binding agreement of the Contracting Parties which is intended to build upon resolution LC-LP.1(2008) adopted in October 2008. Legitimate Scientific Research, assessed on a case-by-case basis using an assessment framework, is allowed on the basis that it is to be regarded as placement of matter for a purpose other than the mere disposal thereof. All other ocean fertilization activities would, depending on the approach taken in the resolution, not be allowed, or suspended. If suspended, the suspension would continue until there is an adequate scientific basis on which to justify such ocean fertilization activities other than scientific research, and until it is lifted by agreement of the Parties.

PROCEDURAL REQUIREMENTS AND IMPLICATIONS

This resolution would be presented to the Contracting Parties for agreement by consensus.

POINTS TO NOTE

- 1 This resolution would not be legally binding.
- 2 It is intended that this resolution would build on resolution LC-LP.1(2008). However, it should be noted that there are concerns whether and how this would be the case and how a new resolution would relate to what has already been agreed in resolution LC-LP.1(2008).
- 3 This resolution applies both to the London Convention and Protocol.
- 4 This resolution may be considered to follow the precedent by the Consultative Meeting of taking a resolution approach with respect to the management of radioactive wastes, e.g., resolution LDC.21(9) adopted in 1985.
- 5 This resolution has immediate effect on adoption.

- 6 Research bodies would be responsible for the science and research itself. The London Convention and Protocol are not responsible for actual evaluation of research projects but only for their agreement of assessment criteria under these instruments.
- 7 This resolution may be seen as not regulating research adequately in the sense that once an ocean fertilization activity meets the criteria for legitimate scientific research, it is covered neither by the Convention nor the Protocol.
- 8 This resolution may need something additional, e.g., another resolution/statement, to address other concerns raised, such as reporting requirements and who conducts the assessment. This may also address issues raised in point 7 above.
- 9 The definition of ocean fertilization needs to be addressed given issues raised in the Intersessional Technical Working Group.
- 10 Operative paragraph 12 is placed in square brackets as it is acknowledged that such a statement will need careful consideration.

ANNEX 5

OPTION 4: (INTERPRETATIVE RESOLUTION)

RESOLUTION [XXXX]
ON THE INTERPRETATION OF THE LONDON CONVENTION AND PROTOCOL
WITH RESPECT TO OCEAN FERTILIZATION
 (Adopted on XXXX)

THE XXXX CONSULTATIVE MEETING OF THE CONTRACTING PARTIES TO THE LONDON CONVENTION AND THE XXXX MEETING OF THE CONTRACTING PARTIES TO THE LONDON PROTOCOL,

RECALLING the objectives of the London Convention¹ and Protocol²;

RECALLING resolution LC-LP.1(2008) of the 30th Consultative Meeting and the 3rd Meeting of Contracting Parties in October 2008 on the Regulation of Ocean Fertilization, in which the Parties agreed that “given the present state of knowledge, ocean fertilization activities other than legitimate scientific research should not be allowed. To this end, such other activities should be considered as contrary to the aims of the Convention and Protocol and not currently qualify for any exemption from the definition of dumping in Article III(1)(b) of the Convention and Article 1.4.2 of the Protocol”;

NOTING that the 30th Consultative Meeting and the 3rd Meeting of Contracting Parties agreed to further consider a potential legally binding resolution or an amendment to the London Protocol at its next session in 2009;

NOTING that the ‘Statement of concern’ on large-scale ocean fertilization by the Scientific Groups in June 2007 endorsed by the 29th Consultative Meeting and the 2nd Meeting of Contracting Parties in November 2007, and expanded on by the Scientific Groups in May 2008, remains valid;

NOTING decision IX/16 on 30 May 2008 of the 9th Meeting of the Conference of the Parties to the Convention on Biological Diversity which “requests Parties and urges other Governments, in accordance with the precautionary approach, to ensure that ocean fertilization activities do not take place until there is an adequate scientific basis on which to justify such activities, including assessing associated risks, and a global, transparent and effective control and regulatory mechanism is in place for these activities; with the exception of small scale scientific research studies within coastal waters”;

¹ “Contracting Parties shall individually and collectively promote the effective control of all sources of pollution of the marine environment, and pledge themselves especially to take all practicable steps to prevent the pollution of the sea by the dumping of waste and other matter that is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.” (Article II of the London Convention).

² “Contracting Parties shall individually and collectively protect and preserve the marine environment from all sources of pollution and take effective measures, according to their scientific, technical and economic capabilities, to prevent, reduce and where practicable eliminate pollution caused by dumping or incineration at sea of wastes or other matter. Where appropriate, they shall harmonize their policies in this regard.” (Article 2 of the London Protocol).

NOTING United Nations General Assembly resolution 63/111, concerning “Oceans and the law of the sea”, adopted on 5 December 2008, which in its paragraph 115 “welcomes resolution LC-LP.1(2008)”;

NOTING that a number of other international organizations are considering the issue of ocean fertilization;

NOTING that knowledge on the effectiveness and potential environmental impacts of ocean fertilization is currently insufficient to justify activities other than legitimate scientific research;

1. **AGREE** that this resolution is a subsequent agreement between the Contracting Parties regarding the interpretation and application of the London Convention and Protocol under Article 31(3)(a) of the Vienna Convention on the Law of Treaties 1969;
2. **AGREE** that the scope of the London Convention and Protocol includes ocean fertilization activities;
3. **AGREE** that for the purposes of this resolution, ocean fertilization is any activity undertaken by humans with the principal intention of stimulating primary productivity in the oceans³;
4. **AGREE** that in order to provide for legitimate scientific research, such research shall be regarded as placement of matter for a purpose other than the mere disposal thereof under Article III(1)(b)(ii) of the London Convention and Article 1.4.2.2 of the London Protocol;
5. **AGREE** that scientific research proposals should be assessed on a case-by-case basis using an assessment framework to be developed by the Scientific Groups under the London Convention and Protocol;
6. **AGREE** that the aforementioned assessment framework should include, *inter alia*, tools for determining whether the proposed activity is contrary to the aims of the Convention and Protocol;
7. **AGREE** that until the aforementioned assessment framework is available, Contracting Parties should be urged to use utmost caution and the best available guidance⁴ to evaluate the scientific research proposals to ensure protection of the marine environment consistent with the Convention and Protocol;
8. **AGREE** that for the purposes of this resolution, legitimate scientific research should be defined as those proposals that have been assessed and found acceptable under the aforementioned assessment framework;

³ Ocean fertilization does not include conventional aquaculture, or mariculture, or the creation of artificial reefs.

⁴ Such guidance includes, but is not limited to: previous agreements of the Consultative Meetings/Meetings of Contracting Parties; Annex III to the London Convention and Annex 2 to the London Protocol; the considerations for evaluating ocean fertilization proposals developed by the Scientific Groups (LC/SG 31/16, annex 2, appendix 3); and the Revised Generic Waste Assessment Guidance (LC 30/16).

9. **AGREE** that, given the present state of knowledge, ocean fertilization activities other than legitimate scientific research shall not be allowed. To this end, such other activities shall be considered as contrary to the aims of the Convention and Protocol and not qualify for any exemption from the definition of dumping in Article III(1)(b) of the Convention and Article 1.4.2 of the Protocol.

EXPLANATION OF THE DRAFT TEXT

This is a subsequent agreement under Article 31(3)(a) of the Vienna Convention on the Law of Treaties 1969 and contains an agreed interpretation of the London Convention and Protocol with respect to ocean fertilization activities. It provides that ocean fertilization activities for legitimate scientific research are interpreted as placement under the London Convention and Protocol and that all other fertilization activities are prohibited.

PROCEDURAL REQUIREMENTS AND IMPLICATIONS

- 1 This subsequent agreement is in the form of a resolution and would be presented to the Contracting Parties for adoption by consensus.
- 2 It should be noted that there are different views as to the correct interpretation of Article 31(3)(a) of the Vienna Convention. On one view, interpretations under that Article requires consensus and would bind all Parties. On the other view, such interpretations would not require consensus and would only bind those Parties which agree to it.

POINTS TO NOTE

- 1 This resolution supports resolution LC-LP.1(2008) adopted in October 2008.
- 2 The resolution contains an agreed interpretation of the London Convention and Protocol under Article 31(3)(a) of the Vienna Convention. There are different views as to whether such an agreed interpretation would be legally binding or not on the basis that Article 31(3)(a) refers to such agreements being “taken into account” in the interpretation of a Treaty.
- 3 This resolution provides for a clear transparent global regulation (prohibition) on most ocean fertilization and allows guidance to be used to define research.
- 4 Research bodies would be responsible for the science and research itself. The London Convention and Protocol are not responsible for actual evaluation of research projects but only for their agreement on meeting the assessment criteria under these instruments.
- 5 This resolution can have immediate effect on adoption. Alternatively, Contracting Parties may wish to agree that the resolution will become effective on a future determined date.
- 6 This resolution can be applied to both the London Convention and Protocol.
- 7 This resolution may be seen as not regulating research adequately in the sense that once an ocean fertilization activity meets the criteria for legitimate scientific research, it is covered neither by the Convention nor the Protocol.

- 8 This resolution may require consensus (see above).
- 9 This resolution may need something additional, e.g., another resolution/statement, to address other concerns raised, such as reporting requirements and who conducts the assessment. This may also address issues raised in point 7 above.
- 10 The definition of ocean fertilization needs to be addressed given issues raised in the Intersessional Technical Working Group.
- 11 There are different views as to how the resolution should make reference to, *inter alia*, Article 31(3)(a) of the Vienna Convention. On the one view, the resolution should clearly identify those particular provisions which constitute a subsequent interpretative agreement under the Vienna Convention. Paragraphs 4 and 9 are clear examples of such provisions, although it may be considered that other paragraphs, such as 5 and 8 are also relevant. This view could be achieved by either amending paragraph 1 to make specific reference to the relevant paragraphs or, alternatively, paragraph 1 could be deleted and a reference to Article 31(3)(a) could be inserted in each relevant paragraph. On the other view, an integrated approach should be taken, which incorporates the definition of ocean fertilization and the implications of the interpretation, in this case being those pertaining to the assessment framework. Therefore, there would be no need to isolate particular provisions of the interpretative resolution.

ANNEX 6

OPTION 5: (AN AMENDMENT TO ANNEX 1 TO THE LONDON PROTOCOL)

NOTE: The Working Group agreed to retain the definition of ocean fertilization from resolution LC-LP.1(2008) as the current working definition. The Scientific Groups may review this definition. Some proposals by members of the Intersessional Legal Working Group as shown in this option use various formulations of a possible definition and are reflected for further consideration.

DRAFT TEXT

Add a new paragraph 1.9 to Annex 1:

“1.9 [Matter for which the principal intention is to stimulate primary productivity in the oceans.] [Matter, such as nutrients or micronutrients, added or redistributed to stimulate primary productivity in the [sea] [ocean] [for the purpose of sequestering carbon in ocean waters].]”

In paragraph 3 replace “1.8” with “1.9” to take account of the new paragraph “1.9”.

Add a new paragraph 5 to Annex 1:

- “5 The matter referred to in paragraph 1.9 may only be considered for dumping, if:
- .1 disposal is for [the purposes of] legitimate scientific research; [FOOTNOTE: Agree that for the purposes of this Annex, legitimate scientific research should be defined as those proposals that have been assessed and found acceptable under the assessment framework.]
 - [.2 no wastes or other matter are added for the purpose of disposing of those wastes or other matter. The matter referred to in paragraph 1.9 may contain incidental associated substances as trace contaminants;]
 - [.3 disposal meets a threshold test.] [FOOTNOTE: This may already be covered in point 1 above.]

EXPLANATION OF THE DRAFT TEXT

The effect of the text would be to regulate ocean fertilization as dumping and only allow for legitimate scientific research. By utilizing the annex regime the permitting system would apply as well as other elements of the Protocol such as reporting. The existing Protocol regime for issuing permits would apply (such as the loading State or flag State if loading in a State which is not a Contracting Party).

PROCEDURAL REQUIREMENTS AND IMPLICATIONS

Article 22 (Amendment of the Annexes):

- 1 Amendments need to be adopted by two-thirds majority of the Contracting Parties present and voting.
- 2 The amendments enter into force for each Contracting Party 100 days after adoption unless you declare otherwise.
- 3 Amendments to the Annexes other than Annex 3 will be based on scientific or technical considerations and may take into account legal, social and economic factors as appropriate.

POINTS TO NOTE

- 1 Use of the word ‘matter’ in paragraph 1.9 and whether it is appropriate.
- 2 Whether the assessment framework should constitute specific guidance.
- 3 Relationship of Annex 2 to the assessment framework.
- 4 Whether it is appropriate, given Article 4.1.1, to include specific purpose language in the Annex 1 and whether the current language is appropriate.
- 5 Whether it is appropriate to have a permit regime for legitimate scientific research.
- 6 Whether scientific research can be legally regarded as dumping according to the definition in the London Convention and Protocol and according to the overall objectives of UNCLOS, taking into account provisions for marine scientific research.
- 7 Whether this is legally sufficient on its own without an interpretative resolution or amendment clarifying whether ocean fertilization is dumping.
- 8 Consideration of whether this will create different systems under the Convention versus the Protocol.
- 9 Degree to which this allows Contracting Parties to uphold the CBD decision, i.e. “globally transparent and effective control and regulatory mechanism”.
- 10 Considering the procedural requirements, the level of flexibility should be assessed which this option offers to adapt to future scientific and policy direction.
- 11 An appropriate reference to the assessment framework as amended from time to time should be considered.
- 12 The language in Annex 1, paragraphs 5.2 and 5.3, is kept in square brackets as it was language used in the CO₂ sequestration amendment of 2006, which may not be appropriate here.

ANNEX 7

OPTION 6: (AMENDMENTS TO ANNEX 1 AND THE DEFINITION OF DUMPING)

NOTE: The Legal Working Group agreed to retain the definition of ocean fertilization from resolution LC-LP.1(2008) as the current working definition. The Scientific Groups may review this definition. Some proposals by members of the Legal Working Group as shown in this option use various formulations of a possible definition and are reflected for further consideration.

DRAFT TEXT

Add a new paragraph 1.9 to Annex 1:

“1.9 [Matter for which the principal intention is to stimulate primary productivity in the oceans.] [Matter, such as nutrients or micronutrients, added or redistributed to stimulate primary productivity in the [sea] [ocean] [for the purpose of sequestering carbon in ocean waters].]”

In paragraph 3 replace “1.8” with “1.9” to take account of the new paragraph “1.9”.

Add a new paragraph 5 to Annex 1:

“5 The matter referred to in paragraph 1.9 may only be considered for dumping, if:

- .1 disposal is for [the purposes of] legitimate scientific research; [FOOTNOTE: Agree that for the purposes of this Annex, legitimate scientific research should be defined as those proposals that have been assessed and found acceptable under the assessment framework.]
- [.2 no wastes or other matter are added for the purpose of disposing of those wastes or other matter. The matter referred to in paragraph 1.9 may contain incidental associated substances as trace contaminants;]
- [.3 disposal meets a threshold test.] [FOOTNOTE: This may already be covered in point 1 above.]”

ADD:

- Interpretative resolution language:
 - Contracting Parties agree that dumping under article 1.4.1 [1.4.2] includes any deliberate addition or redistribution into the sea of matter such as nutrients or micronutrients to stimulate primary productivity in the [sea] [ocean] [for the purpose of sequestering carbon in ocean waters.], from vessels, aircraft, platforms or other man-made structures at sea.
 - [Dumping means any activity undertaken by humans with the principal intention of stimulating primary productivity in the oceans], from vessels, aircraft, platforms or other man-made structures at sea.

OR

- Amendment to article 1.4.1: To add a new paragraph 5.

EXPLANATION OF THE DRAFT TEXT

The effect of the text would be to regulate ocean fertilization as dumping and only allow for legitimate scientific research. By utilizing the annex regime the permitting system would apply as well as other elements of the Protocol such as reporting. The existing Protocol regime for issuing permits would apply (such as the loading State or flag State if loading in a State which is not a Contracting Party). The additional language in an amendment or resolution would legally clarify that ocean fertilization activities in Annex 1 are dumping under the Protocol regime.

PROCEDURAL REQUIREMENTS AND IMPLICATIONS

Article 21 (Amendment of the Protocol):

- 1 Should an amendment to the definition of dumping be chosen then Article 21 would apply.
- 2 Notice required: The text of a proposed amendment should be communicated to Contracting Parties at least six months prior to its consideration.
- 3 Adoption: two-thirds majority vote of Contracting Parties present and voting.
- 4 Entry into force: 60 days after two-thirds of the Contracting Parties have accepted.
- 5 Article 21.5: New Contracting Parties to the Protocol become Parties to it as amended.

Article 22 (Amendment of the Annexes):

- 1 Amendments adopted by two-thirds majority of Contracting Parties present and voting.
- 2 Enter into force for each Contracting Party 100 days after adoption unless you declare otherwise.
- 3 Amendments to the Annexes other than Annex 3 will be based on scientific or technical considerations and may take into account legal, social and economic factors as appropriate.

Article 22.6:

An amendment to an Annex does not enter into force until related amendments to Protocol articles enter into force.

POINTS TO NOTE

- 1 All 'points to note' under option 5 also apply to this option 6.
- 2 The issue whether the placement exemption applies needs to be addressed.
- 3 Further consideration should be given to the scope of application of Article 21.5 of the Protocol, as well as Article 40 of the Vienna Convention on the Law of Treaties, specifically paragraphs 1 and 5.

ANNEX 8

OPTION 7: (AMENDMENTS TO THE DEFINITION OF DUMPING AND EXCLUSIONS FOR DUMPING)

NOTE: The Legal Working Group agreed to retain the definition of ocean fertilization from resolution LC-LP.1(2008) as the current working definition. The Scientific Groups may review this definition. Some proposals by members of the Legal Working Group as shown in this option use various formulations of a possible definition and are reflected for further consideration.

DRAFT TEXT

Clarification of the definition of dumping.

New 1.4.1.5:

any deliberate disposal into the sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea for the purposes of ocean fertilization.

-OR-

New 1.4.1.5

[any deliberate addition or redistribution into the sea of matter such as nutrients or micronutrients to stimulate primary productivity in the [sea] [ocean] [for the purpose of sequestering carbon in ocean waters].]

-OR-

New 1.4.1.5

[any activity undertaken by humans with the principal intention of stimulating primary productivity in the oceans.]

-OR-

Amend 1.4.1.1

any deliberate disposal into the sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea, including for the purposes of ocean fertilization.

Clarification of the definition of placement.

New 1.4.2.4 [or Addition to 1.4.2]

(subparagraph under “dumping does not include”) ... placement of matter for legitimate scientific research [on ocean fertilization].

EXPLANATION OF THE DRAFT TEXT

Ocean fertilization is included in the definition of dumping, and not allowed. Legitimate scientific research is included in the definition of placement and thus is not subject to the permitting regime.

PROCEDURAL REQUIREMENTS AND IMPLICATIONS

Article 21 (Amendment of the Protocol):

- 1 Should an amendment to the definition of dumping be chosen then Article 21 would apply.
- 2 Notice required: Text of a proposed amendment to be communicated to Contracting Parties at least six months prior to its consideration.
- 3 Adoption: two-thirds majority vote of Contracting Parties present and voting.
- 4 Entry into force: 60 days after two-thirds of the Contracting Parties have accepted.
- 5 Article 21.5: New Contracting Parties to the Protocol become Parties to it as amended.

POINTS TO NOTE

- 1 The definition of ocean fertilization should be reviewed.
- 2 The consequence of dealing with legitimate scientific research as a placement activity will affect transparency as the permitting requirements will not apply.
- 3 It should be considered whether other avenues can promote transparency with this option.
- 4 Should the assessment framework be referenced in the textual proposals above? An appropriate reference to the assessment framework as amended from time to time should be considered.
- 5 It should be considered whether the various definitions for dumping above result in the same legal implications.
- 6 There is a need to consider the implications for the London Convention as well as other legal instruments on dumping.
- 7 There is a need to consider who is obliged to conduct the assessment since no permit would be required.
- 8 Considering the procedural requirements, the level of flexibility should be assessed which this option offers to adapt to future scientific and policy direction.

ANNEX 9

OPTION 8: (A NEW, STAND-ALONE ARTICLE IN THE PROTOCOL ON OCEAN FERTILIZATION)**DRAFT TEXT****Article XX:**

- 1 For the purpose of this article, ocean fertilization is defined as being (insert the resolution definition or any revised definition from the Scientific Groups).
- 2 For the purpose of this Protocol, ocean fertilization activities are not regarded as being dumping within the meaning of article 1.4.
- 3 Contracting Parties shall prohibit ocean fertilization activities with the exception of those ocean fertilization activities [that have been assessed and found acceptable in accordance with the assessment framework to be defined as][for the purpose of] legitimate scientific research. Contracting Parties shall ensure that an effective assessment is undertaken as to whether the activity is legitimate scientific research. To this end, Contracting Parties shall take into account the guidance as developed (insert appropriate reference to assessment framework) as revised from time to time.

EXPLANATION OF THE DRAFT TEXT

The prohibition of all other ocean fertilization activities and the exemption for legitimate scientific research is regulated in a stand-alone article. Ocean fertilization would then be considered neither as dumping nor as placement. In particular, scientific research is not considered to be dumping. Another [control] [authorization] mechanism other than the standard permitting regime under the Protocol is utilized for the assessment of scientific research.

PROCEDURAL REQUIREMENTS AND IMPLICATIONS

This would create a stand-alone article.

Article 21 (Amendment of the Protocol):

- 1 Should an amendment to the definition of dumping be chosen then Article 21 would apply.
- 2 Notice required: Text of a proposed amendment to be communicated to Contracting Parties at least six months prior to its consideration.
- 3 Adoption: two-thirds majority vote of Contracting Parties present and voting.
- 4 Entry into force: 60 days after two-thirds of the Contracting Parties have accepted.
- 5 Article 21.5: New Contracting Parties to the Protocol become Parties to it as amended.

POINTS TO NOTE

- 1 One consideration as to whether a new stand-alone article is appropriate is that new technologies will continue to emerge over time.
- 2 Contracting Parties may wish to consider the need to find a way in which a permission regime is also allowable under this option.

- 3 Consideration is needed whether this will create different systems under the Convention versus the Protocol.
 - 4 It should be considered whether or not this is an overly prescriptive approach to achieving the objective of regulating ocean fertilization.
 - 5 It should be considered how the new paragraph 2 would link with the existing definition of dumping under the Convention and Protocol.
 - 6 The manner in which the “incineration at sea” provision and definition was included in the London Convention may provide a useful analogy for this approach.
 - 7 It should be considered who is obliged to conduct the assessment since no permit would be required.
 - 8 There is a question whether this option is consistent with resolution LC-LP.1(2008) adopted in October 2008.
 - 9 Clarity may be needed on the distinction between the permitting regime and the authorization resulting from the assessment procedure for legitimate scientific research.
 - 10 Considering the procedural requirements, the level of flexibility should be assessed which this option offers to adapt to future scientific and policy direction.
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