

THIRTY-FIFTH CONSULTATIVE MEETING  
OF CONTRACTING PARTIES TO THE  
LONDON CONVENTION  
&  
EIGHTH MEETING OF CONTRACTING  
PARTIES TO THE LONDON PROTOCOL  
14 – 18 October 2013

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**REPORT OF THE THIRTY-FIFTH CONSULTATIVE MEETING AND  
THE EIGHTH MEETING OF CONTRACTING PARTIES**

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## **4 REGULATION OF OCEAN FERTILIZATION AND OTHER ACTIVITES**

### **OCEAN FERTILIZATION INCIDENT**

4.1 The delegation of Canada updated the Meetings on the alleged ocean fertilization incident that occurred in the summer of 2012 in waters off the Canada's west coast. As indicated to the governing bodies in 2012, it reiterated that the Government of Canada had not authorized this alleged activity nor received in advance any details from the proponent about the alleged activity that would have allowed an assessment of the project. Environment Canada's Enforcement Branch had been informed of an alleged ocean fertilization incident off Canada's west coast, in international waters, and had launched an investigation on 30 August 2012. In March 2013, Environment Canada had executed three search warrants and two production orders relating to the alleged incident. One of the parties on which a search warrant was executed has filed an application in court to have the search warrant set aside. Court proceedings relating to this are underway. The delegation highlighted that, while the execution of search warrants and production orders can mean that the current investigation is progressing, it cannot, as a matter of policy, address any specific questions regarding potential violations nor make further comments on the case, until the investigation is complete. The delegation stressed that the Government of Canada continues to take this matter very seriously and generally reaffirmed its commitment to taking the necessary measures to protect the marine environment and to actively support the London Convention and Protocol.

### **PROPOSAL TO AMEND THE LONDON PROTOCOL TO REGULATE PLACEMENT OF MATTER FOR OCEAN FERTILIZATION AND OTHER MARINE GEOENGINEERING ACTIVITIES**

4.2 It was recalled that in 2010, the governing bodies had adopted resolution LC-LP.2(2010) on the "Assessment Framework for Scientific Research Involving Ocean Fertilization". Since that time, and in accordance with that resolution, the governing bodies continued to work towards providing a global, transparent and effective control and regulatory mechanism for ocean fertilization activities and other activities that fall within the scope of the London Convention and the London Protocol and have the potential to cause harm to the marine environment.

4.3 The delegations of Australia, Nigeria and the Republic of Korea informed the Meeting of Contracting Parties of their proposal to amend the London Protocol to regulate placement of matter for ocean fertilization and other marine geoengineering activities (LC 35/4). The delegations underlined that the proposed amendment was intended to effect a legally binding regulation of ocean fertilization and is structured to allow other marine geoengineering activities to be considered in the future, if they fall within the scope of the London Protocol and have the potential to cause harm to the marine environment. The Meeting of Contracting Parties noted that the proposed amendment, as set out in annex 1 to the document, includes the addition of a new article *6bis*, two new annexes and a new definition for marine geoengineering.

4.4 The new article *6bis* provides that, in relation to marine geoengineering activities listed in a new annex 4, placement of matter shall not be allowed except where its listing in annex 4 provides for the activity or subcategory of the activity to be regulated under a permit. This is a positive list approach; activities not listed in annex 4 would not be regulated by the new article *6bis*. The new annex 4 currently contains one listing, namely, ocean fertilization, but could be amended in the future to contain further listings, as appropriate. A new annex 5 contains a generic Framework for the Assessment of Matter that may be considered for placement under annex 4 and stipulates the fundamental aspects of the assessment being conducted before a permit is to be granted. The definition of "marine geoengineering" will be

inserted as a new subparagraph *5bis* in article 1. The proposal also requires a limited number of consequential amendments. Suggested text for these amendments is contained in annex 2 to the document. The draft text of an adopting resolution for this proposal is contained in annex 3 to the document.

4.5 The Meeting of Contracting Parties thanked Australia and the co-sponsors, Nigeria and the Republic of Korea, for their submission.

4.6 The delegation of Germany, in introducing its document (LC 35/4/3 and Corr.1) on amendment proposals to the proposal submitted by Australia and co-sponsors, highlighted that Germany generally supports the proposed amendment to the London Protocol and has provided comments, as shown in annex 1 and explained in annex 2 to this document. The Meeting noted that Germany believes that the establishment of an independent international expert group is necessary which should have two tasks: 1) to provide an independent scientific statement concerning the state of scientific knowledge before a decision is taken whether a specific activity is listed in annex 4 according to the proposal as outlined in LC 35/4; and 2) to scientifically review applications for permissions.

4.7 The Meeting thanked Germany for its comments.

4.8 In the ensuing discussion the following views were expressed:

- .1 several delegations highlighted the currently inadequate international regulation of marine geoengineering and the continued risk that research experiments or full-scale deployment could be conducted without a proper assessment of effects on the marine environment or on human health and, therefore, expressed support for the proposal by Australia, co-sponsored by the Republic of Korea and Nigeria, to amend the London Protocol (LC 35/4). It was emphasized that these amendments would provide the global, transparent and effective control and regulatory mechanism for ocean fertilization and other activities that fall within the scope of the LC/CP and have the potential to cause harm to the environment;
- .2 some delegations highlighted the need to first gain further experience in applying the Assessment Framework for Scientific Research Involving Ocean Fertilization before regulating other marine geoengineering activities, and expressed the view that only ocean fertilization should be regulated at this stage;
- .3 there were differing views on the definition of "marine geoengineering", ranging from being completely appropriate to being too broad and having the potential to include activities that are regulated via other mechanisms; and
- .4 with regard to the proposal to establish an independent international expert group, as proposed by Germany (LC 35/4/3), several delegations highlighted that creating an IIEG could have financial and sovereignty implications even if it were to be fully funded by proponents. In this regard, the need to use existing structures was suggested, with one possible example being an Ad Hoc Group under the Scientific Groups.

## **ESTABLISHMENT OF THE WORKING GROUP ON THE PROPOSAL TO AMEND THE LONDON PROTOCOL**

4.9 The Meeting, having noted the considerable support for the tabled amendment and the comments offered by Germany and others, established a working group, under the lead of Dr. Chris Vivian (United Kingdom), with the following tasks:

- .1 taking into account the comments received in plenary, review the draft texts in annexes 1 to 3 of document LC 35/4, with a view to preparing revised draft texts for the amendment and resolution, for adoption; and, in particular, focus on the following specific points:
  - .1 definition of "marine geoengineering";
  - .2 the establishment of an independent international expert group; and
  - .3 conclude on any remaining drafting issues.
- .2 consider any advice on further action for consideration by the Meeting of Contracting Parties; and
- .3 present a written report to plenary on Thursday morning, 17 October 2013.

### **OUTCOME OF THE WORKING GROUP**

4.10 The Chairman of the working group, Dr. Chris Vivian, (United Kingdom), in introducing the report of the group (LC 35/WP.3), highlighted that the group met from 14 to 17 October 2013. In attendance were: delegations from the following Contracting Parties to the London Protocol: Australia, Canada, China, France, Germany, Japan, the Netherlands, New Zealand, Nigeria, Norway, the Republic of Korea, Spain, Sweden, South Africa, the United Kingdom and Vanuatu; delegations from the following Contracting Parties to the London Convention: Argentina, Brazil, and the United States; an observer from Thailand, a State that is neither Contracting Party to the London Convention nor to the London Protocol; as well as observers from the following non-governmental organizations: ACOPS, Greenpeace International and IUCN.

4.11 The Contracting Parties noted that the group had completed its tasks and that the draft amendment and associated draft resolution, shown in annexes 1, 2 and 3 of document LC 35/WP.3, contained no square brackets.

4.12 The Contracting Parties also noted that:

- .1 the definition of "marine geoengineering" is necessarily broad so as to provide for the flexibility to respond to new activities and techniques in the future. The amendments establish a regime by which listed activities in annex 4 will be regulated. In order to be considered for a listing in the new annex 4, a proposed activity must come within the scope of the Protocol, that is, it involves the introduction of matter into the sea which has the potential to cause harm to the marine environment;
- .2 it is not intended that the amendment will apply to other established legitimate uses of the sea that have effects on the marine environment, such as the direct harvesting of marine organisms; conventional

aquaculture or mariculture; the creation of artificial reefs; use of dispersants in oil spill response; or the production of energy from wind, currents, waves, tides; ocean thermal energy conversion; deep sea mining; conventional marine observation and sampling methods; and

3. in the context of article 6*bis* a permit shall only be issued for an activity if all the conditions in the proposed annex 5 (Assessment Framework for matter that may be considered for placement under proposed annex 4) are met.

4.13 The delegation of Japan stated that while it had actively contributed to the work of the group and, in particular, to ensure that all activities to promote fisheries be excluded from the draft amendment, it believed that this was not entirely accomplished and that it feared some fishing aspects could be inadvertently regulated by this amendment. While not wishing to stand in the way of consensus, Japan stressed that fisheries are an important issue from a Japanese perspective, in particular, in relation to food security and it was consequently concerned that the amendment might not be accepted by the Japanese Diet (parliament).

4.14 The delegation of Italy indicated that given the lack of experience in these matters it could not put forward a position on the proposed amendments and considered it important to continue to assess scientific and technical issues in this regard.

4.15 Several other delegations were satisfied that the draft amendment would provide the global, transparent, and effective control and regulatory mechanism for ocean fertilization and other geoengineering activities and would fulfil the commitments of the LC-LP.1(2008) and LC-LP.2(2010) resolutions.

4.16 The delegation of China recalled that the working group discussed the difference between using the word "shall" or "should" in the proposed paragraph 12*bis* of annex 5 to the London Protocol. In English those words mean something different. The working group's discussion confirmed the general understanding that in English, of these two words, only the word "shall" creates legally binding obligations.

4.17 The Meeting, having noted that the working group had not finalized its discussion on the Independent Expert Advice Group, defined in paragraph 12*bis* of annex 5, agreed to establish an intersessional correspondence group, under the lead of Germany<sup>2</sup>, to continue to work on the arrangements under which the Independent Expert Advice Group could be operationalized, and, in particular:

- .1 the focus of work would include the following aspects:
  - .1 required expertise
  - .2 criteria for the nomination of experts
  - .3 criteria for the selection of experts
  - .4 common understanding of "independent"
  - .5 operational arrangements
  - .6 involvement of other international bodies

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<sup>2</sup> The coordinator, Dr. Harald Ginzky, can be contacted at: [harald.ginzky@uba.de](mailto:harald.ginzky@uba.de)

- .7 working conditions of experts, including potential remuneration
- .8 conflict of interest
- .9 budgetary implications
- .2 examine options how the above mentioned arrangements could be given effect, such as Guidelines, Guidance or terms of reference; and
- .3 report the results to the next Meeting of Contracting Parties.

#### **ACTION BY THE MEETING OF CONTRACTING PARTIES**

4.18 **Following a brief discussion and noting the consensus, the Meeting of Contracting Parties approved the report in general and, in particular:**

- .1 adopted, in accordance with article 21 of the Protocol, resolution LP.4(8) on the Amendment to the London Protocol to Regulate Placement of Matter for Ocean Fertilization and Other Marine Geoengineering Activities, as set out at annex 4, to this report. The amendment will enter into force for those Parties which have accepted it on the 60th day after two-thirds of the Contracting Parties have deposited their instruments of acceptance with IMO; and**
- .2 instructed the Secretariat, in accordance with article 21.4, to inform Contracting Parties of the amendment.**

4.19 The Meeting thanked the working group for its excellent work and particularly, Dr. Chris Vivian (United Kingdom) for completing this difficult task.

#### **REPORT OF THE CORRESPONDENCE GROUP TO DEVELOP A GUIDANCE ON A PROCEDURE FOR CONSIDERING THE INCLUSION OF NEW ACTIVITIES IN A PROPOSED NEW ANNEX 4 TO THE LONDON PROTOCOL**

4.20 The Meeting of Contracting Parties considered document LC 35/4/1 (United Kingdom) describing the results of the correspondence group's work to develop further potential text for guidance on a "procedure" for the listing of new activities in the proposed new annex 4 to the London Protocol. The group comprised Argentina, Australia, Brazil, Canada, Germany, Japan, the Netherlands, Norway, the Philippines, the Republic of Korea, the United Kingdom (lead), the United States, Vanuatu, Thailand and Greenpeace International. The Meeting noted that the annex to LC 35/4/1 contained the consolidated results of all the responses from the two rounds of correspondence, with key comments from the correspondence group members inserted where appropriate.

4.21 The Meeting thanked the United Kingdom for its submission and hard work.

4.22 Following a brief discussion, the Meeting forwarded the draft Guidance to the working group dealing with the proposal to amend the London Protocol and instructed the group, time permitting, to review the draft text of the guidance once it had completed its work on the proposed amendment to the London Protocol.

4.23 The Meeting noted that the working group had met on 17 October 2013 under the chairmanship of Dr. Chris Vivian (United Kingdom) and that the following Contracting Parties to the London Protocol had been in attendance: Australia, Canada, China, France, Germany,

Japan, the Netherlands, New Zealand, Nigeria, Norway, the Republic of Korea, Spain, Sweden, South Africa, the United Kingdom and Vanuatu. Delegations from Argentina, Brazil, Thailand, the United States, ACOPS, Greenpeace International and IUCN were also in attendance.

#### **ACTION BY THE MEETING OF CONTRACTING PARTIES**

**4.24 The Meeting, having noted that the group had made considerable progress in reviewing the draft text of the "Guidance for considering the inclusion of new activities in annex 4 to the London Protocol", as set out in annex 5 to this report, agreed to establish an intersessional correspondence group, under the lead of the United Kingdom<sup>3</sup>, to complete this work, with a view to submitting a finalized draft text, for adoption, at the next Meeting of Contracting Parties in 2014.**

#### **SCIENCE OVERVIEWS ON OCEAN FERTILIZATION**

4.25 It was recalled that, in 2010, the governing bodies had adopted resolution LC-LP.2(2010) on the "Assessment Framework for Scientific Research Involving Ocean Fertilization", with the understanding that the framework should be reviewed at appropriate intervals in light of new and relevant scientific information and knowledge and in light of experience in applying the framework". It was also recalled that, in 2012, the governing bodies, having noted the offer by the delegation of the United States to lead on the development of a (web-based) repository of references relating to the application of the Assessment Framework which would be accessible to LC-LP Parties, invited the Scientific Groups to review the progress made on this matter and to provide advice to this session of the governing bodies, as appropriate (LC 34/15, paragraphs 4.25 to 4.27).

4.26 The Meetings considered document LC 35/4/2 (United States), providing an update on progress in developing the web-based repository of references relating to the application of the Assessment Framework.

4.27 The Meetings noted that progress had been good, but that further work needed to be undertaken in the intersessional period. Contracting Parties were also invited to visit the prototype document repository at <https://sites.google.com/site/lc1pofdocs/> and to provide comments, as they deem appropriate. Comments should also be sent to the Chair of the correspondence group, Dr. Marian Westley (United States), by sending an email to [marian.westley@noaa.gov](mailto:marian.westley@noaa.gov).

4.28 The Meetings thanked the United States for its efforts so far and invited it to report on the work of the correspondence group to the Scientific Groups for review.

#### **OTHER ISSUES RELATED TO MARINE GEOENGINEERING**

4.29 The Meetings noted the information provided by the United Kingdom (LC 35/INF.2) on marine geoengineering techniques. It was noted that the annex to this document contained a significant update of the 2010 document (LC 32/4) and contained a brief summary of marine geoengineering techniques that have been proposed to date as approaches that potentially could help in addressing climate change. It illustrates the wide range and diversity of marine geoengineering techniques that have been proposed. Since they all depend on modifying the ocean in some way to have their desired effect, they all have the potential to have harmful effects on marine ecosystems. The references in the text of the annex all have hyperlinks to the original source for the publications concerned so that the reader can consult the source documents.

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<sup>3</sup> The coordinator, Mr. Philip Stamp, can be contacted at: [Philip.stamp@defra.gsi.gov.uk](mailto:Philip.stamp@defra.gsi.gov.uk)

4.30 The Meetings also noted the information provided by the Executive Secretary of the Secretariat of the Convention on Biological Diversity (CBD) on the topic of climate-related geoengineering and, in particular, on a number of studies published in CBD Technical Series relating to policy, technical and regulatory matters (LC 35/J/4). Further information can be found at: <http://www.cbd.int/climate/geoengineering/>.

## **5 CO<sub>2</sub> SEQUESTRATION IN SUB-SEABED GEOLOGICAL FORMATIONS**

### **REVIEW OF THE CO<sub>2</sub> SEQUESTRATION GUIDELINES**

5.1 It was recalled that in 2009, the Meeting of Contracting Parties had adopted resolution LP.3(4) "on the amendment of article 6 of the London Protocol" and invited the LP Scientific Group, inter alia, to consider the need for amendments to the *Specific Guidelines for Assessment of Carbon Dioxide Streams for Disposal into Sub-seabed Geological Formations*, in short, the CO<sub>2</sub> Sequestration Guidelines. It was also recalled that in 2012 the Meeting had adopted the *Revised CO<sub>2</sub> Sequestration Guidelines* (LC 34/15, annex 8), which had been developed by the Scientific Groups, and had established an intersessional correspondence group, under the lead of Canada (LC 34/15, paragraph 5.12), to:

- .1 further consider the annex to those Revised Guidelines and the draft text entitled: "Development and implementation of arrangements or agreements for the export of CO<sub>2</sub> streams for storage in sub-seabed geological formations", with a view to finalizing consideration of the Revised Guidelines before the amendment to article 6 of the London Protocol enters into force; and
- .2 consider what the status or purpose of the draft text would be (e.g. guidance, legal interpretation of LP article 6).

5.2 The Meeting reviewed the report of the correspondence group contained in document LC 35/5 (Canada) and considered the revised draft text on this subject, as contained in the annex. It was noted that Australia, Canada, Germany, Japan, the Netherlands, New Zealand, Norway, Panama, the Philippines, the Republic of Korea, South Africa, Thailand and the United States had participated in the correspondence group as well as the following observer representatives: the International Energy Agency, the Carbon Capture and Storage Association, and the International Association of Oil and Gas Producers.

### **ESTABLISHMENT OF THE WORKING GROUP TO REVIEW THE SEQUESTRATION GUIDELINES**

5.3 Following a brief discussion, the Meeting established a working group under the lead of Ms. Anne Daniel (Canada) with the following terms of reference:

- .1 review the draft text as set out in annex to document LC 35/5 and, taking into account comments received in plenary, finalize the draft text and prepare advice accordingly for consideration by the Meeting of Contracting Parties; and
- .2 present a written report to plenary on Thursday morning, 17 October 2013.