New Activity: Geo-Engineering – Comment

CIL High Seas Governance: Gaps and Challenges
Panel 6
24-25 April 2017, Singapore
Youna Lyons, Centre for International Law, NUS
1. About ocean fertilization
2. Responses to Ocean Fertilization from CBD and LC/LP
3. LC/LP approach and recent development
Ocean-fertilization project off Canada sparks furore

Bid to boost salmon stocks relied on hotly debated science and dubious carbon credits.

Jeff Tollefson

23 October 2012

Workers on a Haida Salmon Restoration Corporation boat release iron sulphate into the Pacific Ocean.
West Coast controversy

In this illustration based on NASA satellite data, yellow and brown areas show relatively high concentrations of chlorophyll in the Pacific Ocean off the coast of British Columbia in August 2012, after roughly 100 tonnes of iron sulphate were dumped into waters near the islands of Haida Gwaii.

SOURCE: Giovanni/Goddard Earth Sciences Data and Information Services Center/NASA
2. CBD Response to Ocean Fertilization

Statement of concern from the LC/LP

Statement of concern on long term on large-scale ocean fertilization by the SG in June 2007 endorsed by the COP to the LC/LP in May 2008

CBD COP Decision IX/16 on 20 May 2008

‘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 basis on which to justify such activities, including assessing associated risks, and a global transparent and effective control and regulatory mechanisms is in place for these activities; with the exception of small scale scientific research studies within coastal waters. Such studies should only be authorized if justified by the need to gather specific scientific data, and should also be subject to thorough prior assessment of the potential impacts of the research studies on the marine environment, and be strictly controlled, and not be used for generating and selling carbon offsets or any other commercial purposes.’
2. CBD Response to Ocean Fertilization

UNGA Resolution 62/215 on Oceans and LOS of 22 Dec 2007

‘encourages States to support the further study and enhance understanding of ocean iron fertilization’

COP LC/LP Resolution of 31 October 2008

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

(...) Agree that for the purpose of this resolution, Ocean fertilization is any activity undertaken by humans with the principal intention of stimulating primary productivity in the oceans

(...) Agree that scientific research proposals should be assessed on a case-by-case basis using an assessment framework to be developed by the SG under the LC/LP

Assessment Framework adopted on 14 Oct 2010
3. Geo-engineering in the 2013 Amendment to the 1996 London Protocol

Resolution LP 4(8) To Regulate the Placement of Matter For Ocean Fertilization and Other Marine Geoengineering Activities

Definition of geoengineering:

- a deliberate intervention in the marine environment
- to manipulate natural processes, including to counteract anthropogenic climate change and/or its impacts,
- and that has the potential to result in deleterious effects, especially where those effects may be widespread, long lasting or severe
Assessment Framework for matter that may be considered for placement

Ocean Fertilization

- Only geoengineering activity allowed under the Amendment

- An ocean fertilization activity may only be considered for a permit if it is assessed as constituting legitimate scientific research taking into account any specific placement assessment framework
SCIENTIFIC GROUP OF THE LONDON
CONVENTION – 40th Meeting; and

SCIENTIFIC GROUP OF THE LONDON
PROTOCOL – 11th Meeting
27-31 March 2017
Agenda item 3

MARINE GEOENGINEERING

Introduction to Korean Iron Fertilization Experiment in the Southern Ocean Project

Submitted by the Republic of Korea

SUMMARY

Executive summary: This document provides a review article entitled "Ocean-Iron Fertilization Experiments: Past-Present-Future with Introduction to Korean Iron Fertilization Experiment in the Southern Ocean (KIFES) Project" authored by Joo-Eun Yoon et al. (2016) and submitted to Journal of Biogeosciences. This five-year project plan (2016-2020) was designed by the Korea Polar Research Institute (KOPRI) in the Republic of Korea.

Action to be taken: Paragraph 10

Related documents: None
MARINE GEOENGINEERING

Research progress in artificial upwelling and its potential environmental effects

Submitted by China

SUMMARY

Executive summary: The annex to this document contains an article entitled Research progress in artificial upwelling and its potential environmental effects authored by Pan Yiyen, Fan Wei, Zhang Dahai et al. and published by Science China Earth Sciences in February 2016

Action to be taken: Paragraph 3

Related documents: None
SCIENTIFIC GROUP OF THE LONDON
CONVENTION – 40th Meeting; and

SCIENTIFIC GROUP OF THE LONDON
PROTOCOL – 11th Meeting
27-31 March 2017
Agenda item 3

MARINE GEOENGINEERING

Assessment of ocean fertilization under the London Protocol as an example for broader application to decision-making regarding geoengineering research

Submitted by Greenpeace International

SUMMARY

Executive summary: Although the 2013 amendment to the London Protocol to regulate placement of matter for ocean fertilization and other marine geoengineering activities has not yet entered into force, the procedures established under the LC-LP to address these issues, including the assessment framework developed by the Scientific Groups, remain the most comprehensive approach to date to guide decision-making on research activities relating to geoengineering. Greenpeace International wishes to bring to the attention of the Scientific Groups a short article, published by the Royal Society of Chemistry in July 2016, which sets out the challenges surrounding assessment of geoengineering research proposals and outlines the LP approach as an example that could have application elsewhere.