REDUCTION OF GHG EMISSIONS FROM SHIPS

Report of the Working Group on Reduction of GHG emissions from ships

Introduction

1. The Working Group on Reduction of GHG emissions from ships met from 25 to 27 October 2016 under the chairmanship of Mr. H. Saito (Japan).

2. The group was attended by delegates from the following Member Governments:

   ANTIGUA & BARBUDA
   ARGENTINA
   AUSTRALIA
   BAHAMAS
   BELGIUM
   BRAZIL
   CANADA
   CHILE
   CHINA
   COOK ISLANDS
   CYPRUS
   DENMARK
   ESTONIA
   FIJI
   FINLAND
   FRANCE
   GERMANY
   GREECE
   INDIA
   ISLAMIC REPUBLIC OF IRAN
   ITALY
   JAPAN
   LIBERIA
   MALAYSIA
   MALTA
   MARSHALL ISLANDS
   MEXICO
   MOROCCO
   NETHERLANDS
   NEW ZEALAND
   NORWAY
   PANAMA
   PAPUA NEW GUINEA
   PHILIPPINES
   POLAND
   REPUBLIC OF KOREA
   RUSSIAN FEDERATION
   SAUDI ARABIA
   SINGAPORE
   SOLOMON ISLANDS
   SOUTH AFRICA
   SWEDEN
   TURKEY
   UNITED KINGDOM
   UNITED STATES
by the following IMO Associate Member:

HONG KONG, CHINA

by representatives from the following UN Programmes, UN Specialized Agencies and other
UN Entities:

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE
(UNFCCC)

by observers from the following intergovernmental organization:

EUROPEAN COMMISSION (EC)

and by observers from the following non-governmental organizations in consultative status:

INTERNATIONAL CHAMBER OF SHIPPING (ICS)
INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS (IAPH)
BIMCO
OIL COMPANIES INTERNATIONAL MARINE FORUM (OCIMF)
INTERNATIONAL ASSOCIATION OF INDEPENDENT TANKER OWNERS
(INTERTANKO)
CRUISE LINES INTERNATIONAL ASSOCIATION (CLIA)
INTERNATIONAL ASSOCIATION OF DRY CARGO SHIPOWNERS
(INTERCARGO)
INSTITUTE OF MARINE ENGINEERING, SCIENCE AND TECHNOLOGY,(iMarEST)
INTERNATIONAL TRANSPORT WORKERS’ FEDERATION (ITF)
WORLD SHIPPING COUNCIL (WSC)
CLEAN SHIPPING COALITION (CSC)

Terms of reference

3 Taking into account the comments and decisions made in plenary and at MEPC 69, and using as the basis the documents submitted to this session (MEPC 70/7/3, MEPC 70/7/4,
MEPC 70/7/5, MEPC 70/7/6, MEPC 70/7/7, MEPC 70/7/8, MEPC 70/7/9, MEPC 70/7/10,
MEPC 70/7/11, MEPC 70/7/12, MEPC 70/7/13 and MEPC 70/7/14) and those deferred from
the previous session (MEPC 69/7/1, MEPC 69/7/2, MEPC 69/7/3 and MEPC 69/7/4), the group
was instructed to:

.1 consider how to progress the matter of reduction of GHG emissions from
ships and advise the Committee as appropriate; and

.2 submit a written report to plenary by Friday, 28 October 2016.

General considerations

4 As instructed by the Committee, the group considered the way forward for the
Organization to address GHG emissions from ships, with the aim to develop a draft work plan
or roadmap including defined tasks and timelines.
With a view to facilitating the work of the group, the Chairman prepared a draft roadmap for developing a comprehensive IMO strategy on reduction of GHG emissions from ships, which aimed to consolidate elements of the various submitted proposals and could be used as the basis for the work of the group. Following discussion, the group agreed that, while there were various concerns regarding specific aspects of the draft roadmap, it did provide a good starting point. Therefore, the group agreed to use this draft as the basis for its deliberations, taking into account the proposals made in the relevant documents and noting that this draft was accompanied by a list of questions that could be considered, as follows:

1. When do Member States consider that further work to address GHG emissions from international shipping should be initiated?

2. What role should the international shipping sector have in supporting the goals of the Paris Agreement?

3. What action could be taken now and what should be delayed until the data collection and analysis is completed?

4. As part of the sector’s strategy to address GHG emissions from ships, what are the risks and opportunities for international shipping in continuing to support global trade and sustainable development?

5. What, if any, additional information is required to enable Member States to consider the options for future action?

6. Is there a need for additional time to be given to this agenda item intersessionally and what would be the most appropriate way of providing that time?

The group agreed from the outset that, due to the urgency, importance and complexity of this topic, there would be a need for significant intersessional work, both before MEPC 71 and in the mid- and long term. It was therefore recognized that the group’s work would entail two main aspects on which it should make recommendations to the Committee, namely:

1. the development of the draft roadmap (hereafter "the roadmap") for developing a comprehensive IMO strategy on reduction of GHG emissions from ships (hereafter "the strategy"); and

2. the modalities for intersessional work.

Development of a roadmap for developing a comprehensive IMO strategy on reduction of GHG emissions from ships

The group considered the draft roadmap for developing an IMO GHG emissions strategy, which had been prepared by the Chairman to facilitate the group's work, with a view to finalizing it for approval by the Committee at this session. The group noted that the draft contained parallel timelines for the data collection system (three-step approach), the development of the strategy, and work by the Secretariat (including further IMO GHG studies), and agreed that, while this structure was convenient for its work, the finalized version to be submitted to the Committee should consist of only one overall timeline.

There was consensus in the group that the roadmap should be ambitious, in particular with regard to the proposed adoption by IMO of an initial strategy in 2018. In this regard, it was agreed that the initial strategy would be subject to revision based on data collected as part of
the data collection system during 2019-2021 and would not prejudge any specific further measures that may be implemented in phase 3 of the three-step approach.

9 There was also general acknowledgement within the group that the development of the strategy would build upon, and bring together, the various streams of activity that have already been taking place in IMO in relation to the reduction of GHG emissions from international shipping, including the technical and operational measures (EEDI and SEEMP) in force since 2013, the adoption of the data collection system (DCS) at this session of the Committee and various technical cooperation activities and major projects. In recognition of this, the group agreed to introduce a preambular paragraph capturing this point in the draft roadmap.

10 Several delegations raised the issue of principles, including what some delegations felt were potentially conflicting principles applicable in climate change-related discussions within various UN bodies and IMO, such as common but differentiated responsibilities and respective capabilities, no more favourable treatment and the non-discriminatory principle. Other delegations suggested that this issue had been addressed through the Organization's technical cooperation work, noting in particular resolution MEPC.229(65) on technology transfer.

11 The group also discussed the inclusion into the roadmap of the level of ambition and decided that this would be discussed intersessionally before MEPC 71 to possibly include it in the strategy.

12 In view of the above, the group had an extensive discussion on the need to consider principles for the strategy during which various views were expressed, including on whether this discussion was relevant for this stage of the development of the roadmap or for a later stage during the development of the strategy itself. In conclusion, the group agreed that, as at this stage it was tasked to develop only a roadmap and timeline, it did not need to consider principles for the strategy, while recognizing the need for such principles to be considered later within the detailed strategy, starting with a consideration of the guiding principles for the strategy during intersessional work before MEPC 71.

13 The group agreed that the MEPC sessions expected to be held within 2018 should be seen as a deadline for the adoption of the initial strategy, allowing the Organization to report on this achievement during significant discussions expected to take place at UNFCCC COP 24 in late 2018. Following discussion, the group agreed to recommend that the initial strategy be adopted at MEPC 72, tentatively scheduled in the spring of 2018.

14 The group also agreed that further IMO GHG Studies should be undertaken that would form part of the strategy, starting with a Fourth IMO GHG Study to be carried out to include data covering the period from 2012 to 2018, thus bridging the gap between the Third IMO GHG Study and the data collection system. The group agreed to recommend that the Fourth IMO GHG Study be initiated at MEPC 74, expected to be held in the spring of 2019, and submitted to MEPC 76, expected to be held in the autumn of 2020. The group also agreed in principle that further IMO GHG Studies should be undertaken every five years, subject to decision by the Committee following consideration of the need.

15 In the same spirit of ambition for the strategy, the group also considered whether the second and third phase of the three-step approach should commence as early as possible. Several delegations expressed concerns with regard to availability and robustness of data allowing meaningful analysis and further work. These delegations suggested that, while acknowledging the need for the strategy to be ambitious, it was also very important to recognize the need for actions based on concrete data, therefore the second and third phase
should only commence after adequate data had been collected. Following extensive discussion, the group agreed that phase 2 (data analysis) should start no later than the autumn of 2020 (e.g. at MEPC 76, coinciding with the submission of the proposed Fourth IMO GHG Study) and phase 3 (decisions) should take place in the spring of 2022, at MEPC 78. Several delegations were of the view that phase 3 does not constitute a one-time event.

16 The group had a lengthy discussion on how the strategy should address the impacts of any further measures to reduce GHG emissions from ships to specific categories of countries such as developing States, SIDS and LDCs. Some delegations suggested that the impacts on developing States should be explicitly addressed, as these countries form a special category in the context of UNFCCC and the Kyoto Protocol. Other delegations suggested that there is no such consideration in the context of work within IMO wherein there is focus only on SIDS and LDCs. While initially the group was strongly divided on this point, following careful consideration it was able to reach consensus on making reference to the Organization's High-level Action Plan.

17 With regard to the adoption of a revised strategy which would form the final action point of the roadmap, while there were suggestions to adopt the revised strategy as early as possible, it was recognized that it would be important to receive first at least three sets of collected data from the data collection system to enable informed decisions. In this regard, the group noted that the data for the third year of the data collection system (2021) would be submitted to MEPC 80, expected to be held in the spring of 2023; therefore the group agreed to recommend that the revised strategy be adopted at that session.

18 There was discussion on the text associated with the adoption of the revised strategy with regard to further measures in 2023. In this regard, the group agreed to use the term "as required". Some delegations suggested that "as may be required" would be a more appropriate term. However, it was clarified by another delegation that "as required" was appropriate and its use in this context did not prejudge the consideration to be made at MEPC 80. The group endorsed this view and kept the term as agreed.

19 Based on the considerations and decisions outlined above, including the need for intersessional work, the group prepared for approval by the Committee a draft roadmap for developing a "Comprehensive IMO strategy on reduction of GHG emissions from ships", set out in annex 1.

Modalities for intersessional work

20 As mentioned above, the group agreed from the outset that, due to the urgency, importance and complexity of this topic, there would be a need for significant intersessional work, both before MEPC 71 and in the mid- and long term, including, at a minimum, annual meetings. In this regard the group considered first the proposal by one delegation that the Committee could establish a fixed-term stand-alone subsidiary body to progress work in this topic. While there was significant support in the group for the proposed concept, following extensive discussion and consideration of various suggestions it was agreed that there was not sufficient clarity on the details, as well as the implications and practicalities of how such a concept could be carried forward. Moreover, the group was advised that at the upcoming 117th session of the Council the Committee can request endorsement for intersessional meetings to be held over the next three years. The group agreed to recommend to the Committee to request such endorsement from the Council, and to continue to request for multiple years during the implementation of the roadmap.

21 Therefore, the group agreed not to recommend to the Committee the establishment of a fixed-term stand-alone subsidiary body at this stage, noting that this option might be
considered for the mid- and long term if concrete proposals are submitted to a future session of the Committee.

22 With regard to the short-term intersessional work before MEPC 71, the majority of delegations agreed that the establishment of a correspondence group would not be a good option to address such a complex topic under the existing time constraints. It was therefore agreed to recommend the holding of an intersessional working group meeting at IMO back-to-back with MEPC 71.

23 The group also agreed that this intersessional work should be based both on the Third IMO GHG Study and on submissions to be made to this meeting. Moreover, the group had extensive discussions on topics to be considered at the aforementioned intersessional meeting as part of its consideration of the roadmap, outlined in the previous section of this report.

24 In considering the scope of the intersessional meeting, a number of proposals were made with a view to establishing a detailed outline of what the work during the meeting should entail. The list of topics agreed to be considered at the intersessional meeting proposed to be held before MEPC 71 is provided in the corresponding section of the roadmap, set out in annex 1.

25 In view of the above considerations, the group requested the Committee to agree to the establishment of an intersessional working group on the reduction of GHG emissions from ships, to be held back-to-back with MEPC 71, subject to endorsement by C 117. The group prepared proposed terms of reference for such a meeting, set out in annex 2.

26 Noting its earlier discussion, the group reaffirmed its decision to recommend to the Committee to request endorsement from the Council for intersessional meetings to be held over the next three years, and to continue to request for multiple years during the implementation of the roadmap.

Action requested of the Committee

27 The Committee is invited to approve the report in general and, in particular, to:

1. approve the roadmap for developing a "Comprehensive IMO Strategy on reduction of GHG emissions from ships", as set out in annex 1 (paragraph 19);

2. agree with the establishment of an intersessional working group on the reduction of GHG emissions from ships, subject to endorsement by C 117, to begin work on the roadmap, with terms of reference as set out in annex 2 (paragraph 25); and

3. invite C 117 to endorse the holding of further intersessional meetings on the reduction of GHG emissions from ships during the current and the next biennium (paragraph 26).
ANNEX 1

DRAFT ROADMAP FOR DEVELOPING A COMPREHENSIVE IMO STRATEGY ON REDUCTION OF GHG EMISSIONS FROM SHIPS

In order to build upon, and bring together, the various streams of activity that have already been taking place in IMO in relation to the reduction of GHG emissions from international shipping, including the technical and operational measures (EEDI and SEEMP) in force since 2013, the adoption of the data collection system at MEPC 70 and various technical cooperation activities and major projects, the Organization has agreed on the roadmap for developing a Comprehensive IMO Strategy on Reduction of GHG Emissions from Ships, set out below.

| October 2016  (MEPC 70) | - Adoption of Data Collection System  
|                         | - Voluntary data collection and submission begins  
|                         | - Approval of Roadmap |
| Week before MEPC 71 | - Intersessional meeting to start discussions on a comprehensive IMO strategy on reduction of GHG emissions from ships, taking into account inputs such as: (1) Third IMO GHG Study; (2) submissions on the elements below and on existing activities related to GHG emissions reductions by States and stakeholders; and (3) a technical paper by the Secretariat compiling a list of existing IMO activity related to reducing GHG emissions in the shipping sector. The discussions should include but not be limited to the elements below:  
|                         | • Levels of ambition and guiding principles for the strategy;  
|                         | • Emissions scenarios;  
|                         | • Assessment of the projected future demand for shipping;  
|                         | • Parameters/indicators on energy efficiency of ships (current status and long-term potential);  
|                         | • Emission reduction opportunities (near-, mid- and long-term actions), including alternative fuels;  
|                         | • Costs and benefits;  
|                         | • Capacity building and technical cooperation;  
|                         | • Barriers to emissions reductions and how to overcome them;  
|                         | • Priority areas for R&D, including in relation to technology;  
|                         | • Impact of EEDI;  
|                         | • Impacts on States, taking into account the HLAP (resolution A.1098(29)); and  
|                         | • Impacts of other regulations on GHG emissions |
| May 2017  (MEPC 71) | - Discussion continues¹ |
| September 2017 | - Intersessional meeting |
| Week before MEPC 72 | - Intersessional meeting |
| Spring 2018  (MEPC 72) | - Adoption of initial IMO Strategy², including, inter alia, a list of candidate short-, mid- and long term further measures with possible timelines, to be revised as appropriate as additional information becomes available |

¹ Modality of further intersessional work after MEPC 71 to be considered based on written submissions.

² Initial IMO Strategy is subject to revision based on DCS data during 2019-2021 and does not prejudge any specific further measures that may be implemented in phase 3 of the 3-step approach.
### MEPC 70/WP.7

#### Annex 1, page 2

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Activities</th>
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<tbody>
<tr>
<td>January 2019</td>
<td>- Start of Phase 1: Data collection (Ships to collect data)</td>
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| Spring 2019 (MEPC 74)| - Discussion continues  
                        - Initiation of Fourth IMO GHG Study using data from 2012-2018          |
| Summer 2020          | - Data for 2019 to be reported to IMO                                      |
| Autumn 2020 (MEPC 76)| - Start of Phase 2: data analysis (no later than autumn 2020)             
                        - Discussion continues  
                        - Publication of Fourth IMO GHG Study for consideration by MEPC 76³   |
| Spring 2021 (MEPC 77)| - Initiation of work for adjustments on Initial IMO Strategy, based on DCS data  
                        - Secretariat report summarizing the 2019 data pursuant to regulation 22A.10 |
| Summer 2021          | - Data for 2020 to be reported to IMO                                      |
| Spring 2022 (MEPC 78)| - Phase 3: Decision step  
                        - Discussion continues  
                        - Secretariat report summarizing the 2020 data pursuant to regulation 22A.10 |
| Summer 2022          | - Data for 2021 to be reported to IMO                                      |
| Spring 2023 (MEPC 80)| - Adoption of Revised IMO Strategy, including short-, mid- and long-term further measure(s), as required, with implementation schedules  
                        - Secretariat report summarizing the 2021 data pursuant to regulation 22A.10 |

³ Every five (5) years, to publish updated IMO GHG study, as to be decided by the Committee, and to review Strategy (including further measures).

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https://edocs.imo.org/Final Documents/English/MEPC 70-WP.7 (E).docx
ANNEX 2

TERMS OF REFERENCE FOR AN INTERSESSIONAL WORKING GROUP ON REDUCTION OF GHG EMISSIONS FROM SHIPS

The Intersessional Working Group on Reduction of GHG emissions from ships is instructed, with a view to implementing the roadmap for developing a comprehensive IMO strategy on reduction of GHG emissions from ships approved at MEPC 70, as outlined in annex 1 of document MEPC 70/WP.7, and taking into account documents submitted, to:

.1 consider how to progress the matter of reduction of GHG emissions from ships and advise the Committee as appropriate; and

.2 submit a report for consideration at MEPC 71.