

MARINE ENVIRONMENT PROTECTION
COMMITTEE
75th session
Agenda item 7

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REDUCTION OF GHG EMISSIONS FROM SHIPS

Report of the sixth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 6)

Introduction

1 The sixth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 6) met from 11 to 15 November 2019 and was chaired by Mr. S. Oftedal (Norway).

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

ALGERIA	INDONESIA
ARGENTINA	IRAN (ISLAMIC REPUBLIC OF)
AUSTRALIA	IRELAND
BAHAMAS	ITALY
BELGIUM	JAPAN
BOLIVIA (PLURINATIONAL STATE OF)	KIRIBATI
BRAZIL	LIBERIA
CANADA	MALAYSIA
CHILE	MALTA
CHINA	MARSHALL ISLANDS
COLOMBIA	MEXICO
COOK ISLANDS	MOROCCO
COSTA RICA	NETHERLANDS
CROATIA	NEW ZEALAND
CYPRUS	NICARAGUA
DEMOCRATIC REPUBLIC OF THE CONGO	NIGERIA
DENMARK	NORWAY
ECUADOR	PALAU
ESTONIA	PANAMA
FIJI	PERU
FINLAND	PHILIPPINES
FRANCE	POLAND
GERMANY	PORTUGAL
GHANA	QATAR
GREECE	REPUBLIC OF KOREA
INDIA	RUSSIAN FEDERATION
	SAMOA
	SAUDI ARABIA

SINGAPORE
SOLOMON ISLANDS
SOUTH AFRICA
SPAIN
SWEDEN
THAILAND
TONGA

TURKEY
TUVALU
UNITED ARAB EMIRATES
UNITED KINGDOM
UNITED STATES
VANUATU

by representatives from the following United Nations and Specialized Agency:

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE
(UNFCCC)

by observers from the following intergovernmental organizations:

EUROPEAN COMMISSION (EC)
LEAGUE OF ARAB STATES

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
INTERNATIONAL ASSOCIATION OF CLASSIFICATION SOCIETIES (IACS)
OIL COMPANIES INTERNATIONAL MARINE FORUM (OCIMF)
INTERNATIONAL COUNCIL OF MARINE INDUSTRY ASSOCIATIONS (ICOMIA)
COMMUNITY OF EUROPEAN SHIPYARDS' ASSOCIATIONS (CESA)
INTERNATIONAL ASSOCIATION OF INDEPENDENT TANKER OWNERS
(INTERTANKO)
CRUISE LINES INTERNATIONAL ASSOCIATION (CLIA)
INTERNATIONAL ASSOCIATION OF DRY CARGO SHIPOWNERS
(INTERCARGO)
WORLD WIDE FUND FOR NATURE (WWF)
IPIECA
THE INSTITUTE OF MARINE ENGINEERING, SCIENCE AND TECHNOLOGY
(IMAREST)
INTERNATIONAL PARCEL TANKERS ASSOCIATION (IPTA)
INTERNATIONAL MARINE CONTRACTORS ASSOCIATION (IMCA)
THE ROYAL INSTITUTION OF NAVAL ARCHITECTS (RINA)
INTERFERRY
INTERNATIONAL BUNKER INDUSTRY ASSOCIATION (IBIA)
INTERNATIONAL TRANSPORT WORKERS' FEDERATION (ITF)
WORLD SHIPPING COUNCIL (WSC)
THE NAUTICAL INSTITUTE (NI)
PACIFIC ENVIRONMENT
CLEAN SHIPPING COALITION (CSC)
ACTIVE SHIPBUILDING EXPERTS' FEDERATION (ASEF)
SOCIETY FOR GAS AS A MARINE FUEL LIMITED (SGMF)

Terms of reference

3 The terms of reference for ISWG-GHG 6, as approved by MEPC 74 (MEPC 74/18, paragraph 7.48), are as follows:

"The Intersessional Working Group on Reduction of GHG Emissions from Ships is instructed, taking into account the Initial IMO Strategy on reduction of GHG emissions from ships, its programme of follow-up actions up to 2023, the Procedure for assessing the impacts on States of candidate measures, documents submitted to ISWG-GHG 6 and relevant documents submitted to ISWG-GHG 5 and MEPC 74, to:

- .1 further consider concrete proposals to improve the operational energy efficiency of existing ships, with a view to developing draft amendments to chapter 4 of MARPOL Annex VI and associated guidelines, as appropriate;
- .2 further consider concrete proposals to reduce methane slip and emissions of Volatile Organic Compounds (VOCs);
- .3 consider a draft MEPC resolution urging Member States to develop and update a voluntary National Action Plan (NAP) with a view to contributing to reducing GHG emissions from international shipping, and develop associated guidelines, as appropriate;
- .4 further consider concrete proposals to encourage the uptake of alternative low-carbon and zero-carbon fuels, including the development of life cycle GHG/carbon intensity guidelines for all relevant types of fuels and incentive schemes, as appropriate;
- .5 consider the development of further actions on capacity-building, technical cooperation, research and development, including support for assessment of impacts and support for implementation of measures;
- .6 consider other concrete proposals for candidate measures; and
- .7 submit a written report to MEPC 75."

Adoption of the agenda

4 The Group adopted the agenda for the meeting (ISWG-GHG 6/1) and agreed to be guided in its work by document ISWG-GHG 6/1/2, containing annotations to the provisional agenda, the provisional list of documents submitted to this session and the provisional timetable, on the understanding that the provisional timetable may be subject to adjustments depending on the progress made each day.

5 The Group recalled that as instructed by MEPC 74, delegations could refer to relevant documents submitted to ISWG-GHG 5 and MEPC 74 under the appropriate agenda item in addition to documents submitted to ISWG-GHG 6.

6 The Group welcomed the indicative guidance for the preparation of proposals for measures provided by the Chair in document ISWG-GHG 6/1/1 and noted that this guidance could facilitate the further consideration of the measures by the Group.

Further consideration of concrete proposals to improve the operational energy efficiency of existing ships, with a view to developing draft amendments to chapter 4 of MARPOL Annex VI and associated guidelines, as appropriate

7 The Group recalled that the Initial Strategy identifies that short-term measures could be measures finalized and agreed by the Committee between 2018 and 2023 (resolution MEPC.304(72), paragraph 4.1.1) and that its programme of follow-up actions up to 2023 envisages consideration and decisions on candidate short-term measures from MEPC 74 to MEPC 80 (Spring 2023), in parallel with measure-specific impact assessment.

8 The Group recalled also that it had been instructed by the Committee to further consider concrete proposals to improve the operational energy efficiency of existing ships, with a view to developing draft amendments to chapter 4 of MARPOL Annex VI and associated guidelines, as appropriate (MEPC 74/18, paragraph 7.48).

9 The Group considered relevant documents submitted to this session as follows:

- .1 ISWG-GHG 6/2/3 (Japan and Norway), providing a revised proposal for a goal-based energy efficiency measure utilizing Energy Efficiency Existing Ship Index (EEXI), building upon the initial proposals on the EEXI submitted by Japan (MEPC 74/7/2) and Norway (ISWG-GHG 5/4); and ISWG-GHG 6/2 (Japan and Norway), providing an updated initial impact assessment of this measure, concluding that the proposed EEXI has positive impacts on reduction of GHG emissions and voyage cost, that the overall transport cost could be reduced, and that any potential negative impact could be avoided;
- .2 ISWG-GHG 6/2/11 (Denmark et al.), providing additional elements to the proposal initially submitted in document MEPC 74/7/4 (Denmark et al.), and proposing a mandatory carbon intensity reduction goal for each ship under SEEMP derived from the second level of ambition of the Initial Strategy, associated with an auditing regime to ensure effective enforcement; and ISWG-GHG 6/2/1 (Denmark), providing an updated initial impact assessment of this measure, concluding that the proposed measure has positive impacts on reduction of GHG emissions and energy efficiency of existing ships;
- .3 ISWG-GHG 6/2/2 (Norway), discussing options for introducing a mandatory audit or survey scheme for SEEMP, taking into account the various proposals for strengthening SEEMP and experiences with the auditing scheme in the ISM Code; suggesting to establish a standalone specific auditing scheme for SEEMP, similar to the ISM auditing scheme but independent from it, based on the International Energy Efficiency Certificate survey regime; and proposing to develop a mandatory SEEMP Code;
- .4 ISWG-GHG 6/2/4 (Greece), proposing to make part I of SEEMP part of the ship's Safety Management System (SMS), to include in SEEMP an appropriate operational efficiency indicator or KPI, and to establish, as a prescriptive and sectoral approach, engine power limitations for different types of ships; and ISWG-GHG 6/2/5 (Greece), providing the initial impact assessment of this measure, concluding that the impacts are small, that the measure is likely to result in a reduction of overall transport costs which will benefit, in particular, remote countries dependent on transport; that positive impact on food security and socio-economic progress is expected; and that the risk of occurrence of disproportionally negative impacts on States is negligible;

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- .5 ISWG-GHG 6/2/6 (Bahamas et al.) proposing to strengthen SEEMP, subjecting it to mandatory external audits, either under the ISM Code or by amending the International Energy Efficiency Certificate survey regime, proposing to introduce one or two of the following schemes to quantify emissions reduction: scheme A including performance monitoring with Carbon Intensity Indicators and/or scheme B pre-certification of the ships' technical efficiency with EEXI; and providing an initial impact assessment concluding that there will be no disproportionate impacts;
 - .6 ISWG-GHG 6/2/7 (France and Monaco), proposing a short-term measure based on an objective-based approach – enabling ships to use speed optimization or alternative methods to reduce GHG emissions – using SEEMP, mandatory carbon intensity reduction targets and the ship's speed/consumption interrelation; proposing to establish a specific SEEMP auditing system; and providing an initial impact assessment concluding in particular that the negative impacts of the measure – on the cost of maritime transport and for countries highly dependent on maritime transport – are low or limited;
 - .7 ISWG-GHG 6/2/8 (France), proposing, in addition to a goal-based regulation, to set up a maximum absolute speed through the water of 10.5 knots for bulkers and 11 knots for oil and chemical tankers from 2023 to 2025; and providing an initial impact assessment concluding in particular that the negative impacts of the measure – on the cost of maritime transport and for countries highly dependent on maritime transport – are low or limited;
 - .8 ISWG-GHG 6/2/9 (China) proposing a mandatory rating mechanism for operational energy efficiency performance of ships, providing an initial impact assessment concluding that no negative impact of this mechanism on States has been identified yet; and ISWG-GHG 6/2/10 (China), providing further explanation on this proposal and recommending some potential technical solutions to help with the decision-making process, in particular the use of an alternative operational indicator for the tramp segments, named the Energy Efficiency Performance Indicator (EEPI); and suggesting that the Organization develops Carbon Intensity Indicator (CII) guidelines based on an analysis of some key issues;
 - .9 ISWG-GHG 6/2/12 (BIMCO), proposing to establish a mandatory power limitation on ships, using power limit curves based on the average performance of each ship type trading at target operational speeds for the past years (e.g. past three years); and considering that establishing such limitation in relation to assumed performance of average ships at set target speeds per ship type bridges proposals to limit speed with other proposals;
 - .10 ISWG-GHG 6/2/13 (CSC), providing an initial impact assessment of the proposal to regulate ship operational speed contained in documents ISWG-GHG 4/2/8 and MEPC 74/7/8 (CSC), concluding that this proposal would have a significant positive impact on both the reduction of GHG emissions and transport costs and that potential identified negative impacts can be mitigated by careful design of the measure; and proposing the use of certain criteria to ensure that all short-term measures chosen are an appropriate response to the climate emergency; and

- .11 ISWG-GHG 6/2/14 (Brazil), providing an analysis of the initial impact assessment of the proposed short-term measures; and highlighting the importance of establishing energy efficiency indicators for existing ships in such a way that the shipowners are free to choose a single or combination of measures in order to meet energy efficiency requirements.

10 The Group noted a statement by the delegation of the Marshall Islands, as set out in annex 3. Other views expressed during the ensuing discussion under this agenda item that were forwarded to the Secretariat are set out in annex 4.

11 The Group considered the following key technical issues in view of facilitating the development of draft amendments to MARPOL Annex VI for an energy efficiency measure for existing ships.

Application and enforcement aspects

12 The sponsor(s) for each proposed measure were invited to provide further details on aspects of their proposals related to application and enforcement.

13 Key technical issues included, inter alia:

- .1 To which ships the measure should apply (type, size, year of construction)?
- .2 How can a ship make sure it operates in compliance?
- .3 What would be the respective roles of the flag State and the port State?
- .4 In the case of a combination of technical (EEXI) and operational (CII, SEEMP) approaches, how to ensure equivalency between both schemes and between different indicators?

14 Following consideration, the Group noted the summary of key technical aspects of measures proposed under agenda item 2 as set out in annex 2.

Reference lines and reduction targets

15 The sponsor(s) for each proposed measure were also invited to provide further details on aspects of their proposals related to reference lines and reduction targets. The focus of this discussion was to better understand how the proposed measures could contribute to achieving the second level of ambition of the Initial Strategy to reduce CO₂ emissions per transport work, as an average across international shipping, by at least 40% by 2030, compared to 2008.

16 Key technical issues included, inter alia:

- .1 What should be the initial calendar year? Does the proposal use the EEDI reference lines as a baseline? How to take into account the potential reduction already achieved by the ship since 2008?
- .2 Does the proposal apply the same reduction targets to all ship types and deadweight or are they differentiated? Should there be exemptions for some ship types/sizes?
- .3 Does the proposal include a 2030 reduction target only or also intermediary targets (e.g. yearly or 3-yearly)?

- .4 How may the measure also contribute to achieving the third level of ambition identified in the Initial Strategy?

17 Following consideration, the Group noted the summary of key technical aspects of measures proposed under agenda item 2 as set out in annex 2.

Assessment of potential impacts on States

18 The Group noted that initial impact assessments had been submitted as part of the initial proposals, as required by the *Procedure for assessing impacts on States of candidate measures* (MEPC.1/Circ.885, paragraph 5), and recalled that the Initial Strategy identifies that particular attention should be paid to the needs of developing countries, especially small island developing States (SIDS) and least developed countries (LDCs).

19 In considering the initial impact assessments submitted, the Group invited measure proponents to provide further explanation with a view to identifying the remaining issues to be further considered including whether the proposed measure may generate disproportionately negative impact on some States. Key underlying issues identified by the Chair for further consideration included, inter alia:

- .1 vital role of shipping for food security and disaster response;
- .2 impact on cost of transport and if cost change can be passed on to the customer or not; and
- .3 special challenges faced by some remote areas.

20 The Group noted the concerns expressed by the delegation of the Cook Islands, as set out in annex 3, supported by the delegations of Vanuatu, Palau and several other delegations, that the initial impact assessments provided to this session did not adequately address whether the proposed measure was likely to result in disproportionately negative impacts on small island developing States (SIDS) and least developed countries (LDCs), and as such did not identify how those impacts could be addressed (e.g. avoided, remedied, mitigated), as appropriate.

21 In the ensuing discussion, the following comments, inter alia, were made:

- .1 the situation presented by the Pacific SIDS represented a unique set of circumstances that may need a political, as much as a technical, solution and so the Organization should consider raising the matter in other UN forums to identify and provide an appropriate solution. Other SIDS, such as in the Caribbean, had similar challenges but the potential impact was not at the same level;
- .2 the inadequacy of impact assessments to date needed to be reflected in the Group's report; there was a need to consider the impacts on all potentially impacted States; the procedure needed to be taken into account including when it is appropriate to consider the impacts on States as it is difficult to determine mitigating measures before the impacts are identified; and also a dedicated means to assess the impacts on States, especially for those States who lack capacity to undertake such assessments, should be considered; and

- .3 a future submission by the co-sponsors of document ISWG-GHG 6/2/11 would include a focus on impacts on Pacific SIDS.

22 The Group also noted a statement, as set out in annex 3, by the delegation of Tonga, supported by several other delegations, highlighting the special needs and circumstances of SIDS, especially those located in remote geographical locations such as the Pacific region. These delegations highlighted the need to balance the importance of assessing potential impacts on those States, including identifying possible mitigation actions for further consideration, with the priority and urgent need to develop and enact short-term measures to reduce GHG emissions from international shipping, and that therefore a pragmatic approach would be required.

23 The Group noted the view of the delegation of Vanuatu that the Organization was successfully implementing activities and partnerships in support of the Initial GHG Strategy and suggesting that the Secretariat should explore similar partnerships in the long term to support SIDS in undertaking impact assessments.

24 Following consideration, the Group invited interested Member States to submit commenting documents to ISWG-GHG 7 in accordance with the *Procedure for assessing impacts on States of candidate measures* (MEPC.1/Circ.885, paragraphs 10 to 12).

25 The Group requested the Secretariat to:

- .1 investigate what relevant expertise in other UN bodies (e.g. UNCTAD) could be provided to assist the Group's future assessment; and
- .2 further explore whether activities and output and relevant project based technical cooperation work of the Organization could provide information into the further assessment of impacts on States.

26 In this context, the Group stressed that the procedure and steps specified in the *Procedure for assessing impacts on States of candidate measures* should continue to be strictly adhered to in its future deliberations.

Future steps of discussion on this agenda item

27 Following extensive consideration of the proposed measures, the Chair summarized that:

- .1 following two rounds of discussion, and with the assistance provided by ISWG-GHG 6/J/5, there was a better understanding of the various proposals submitted. The extensive and constructive discussion indicated that there was a general sense among the Group that these measures fall into two approaches, i.e.:
 - .1 technical approach including the proposal from Norway and Japan on EEXI; and proposals from Greece and BIMCO on power reduction; and
 - .2 operational approach including the proposal from Denmark et al. on strengthening SEEMP; the proposal from China on the rating mechanism; and proposals from France and CSC;

- .2 in addition, several delegations pointed out the need to combine these two approaches into two optional goal-based schemes as proposed by Bahamas et al. Also, the potential technical solutions as proposed by China on indicators and the methods to use the indicators may be complementary to the proposals on operational approach;
- .3 the discussion suggested that there was a general agreement that a mandatory goal-based approach would provide the needed flexibility and incentive for innovations;
- .4 during the discussion, it was also identified that more work would be needed to further improve these two approaches. It was also emphasized the need for robust mechanisms for flag State implementation and port State control, including a possible new energy efficiency audit scheme;
- .5 a useful discussion took place on the impact assessment in line with the procedure approved by the Committee. The Group listened attentively to the views expressed, in particular, those by delegates from SIDS. These views were useful input towards the next steps in the impact assessment; and
- .6 the discussion indicated the Group's strong desire to expedite the work so that measures could contribute to achieving the levels of ambition specified in the Initial Strategy.

28 In considering this suggested way forward for future discussion, the following comments were, inter alia, made:

- .1 good progress was made this week and a strong unified operational goal-based approach should be developed along with the technical approach and proponents should aim at combining their proposals including draft amendments to MARPOL Annex VI;
- .2 the Group was on the right track and in order to develop a robust measure there was a need to focus now on enforcement and implementation aspects;
- .3 while there was no immediate approval on the content of the proposed measures, there was a general appetite for the proposed framework; a goal-based approach is the only one to allow flexibility on routes or ships and 2020 should be a promising year for taking informed decisions using DCS data and the Fourth IMO GHG Study to be approved at MEPC 76; potential impacts should be assessed for all States and not only SIDS and LDCs;
- .4 the Group should explore the opportunity of relaxing the document deadline for ISWG-GHG 7 in order for Member States and international organizations to refine their proposals and work on coordinated positions;
- .5 the consideration of comprehensive impact assessments was fundamental and thus should be made before adoption of any measure; and
- .6 there was a need to assess impacts on States which should be balanced with the urgency to act on the development of measures to further reduce GHG emissions from ships.

29 While supporting the Chair's summation, several delegations reiterated their concerns that the impact assessments submitted with the proposals to date were inadequate and that, in accordance with MEPC.1/Circ.885, a comprehensive impact assessment was required prior to the adoption of any measure. Furthermore, as identified in the Initial Strategy, particular attention should be paid to the needs of developing countries, especially SIDS and LDCs. Data from the IMO data collection system and the Fourth IMO GHG study should also be used to support analyses of impacts on States.

30 Some delegations expressed the view that whilst there had been a good discussion of the proposed measures, and that they support the Chair's proposed way forward and early action, the Initial Strategy identified that candidate short-term measures should be finalized and agreed between 2018 and 2023, and as such discussion of approval of a measure by MEPC 75 was prejudging further consideration of the proposal as the Group was far from agreement on dates and timelines and on the details of approaches. Furthermore, when regulating economic activity, it must be on the basis of clear, solid data and analysis. Advancing regulations without understanding their economic impacts could not be supported as a decision with potentially significant negative impacts on international trade without a solid basis for setting the standard.

31 Other delegations expressed the view that the Initial Strategy also identified that in aiming for early action, the timeline for short-term measures should prioritize potential early measures with a view to achieving further reduction of GHG emissions from international shipping before 2023. As such, there was an urgency both by many delegations attending the meeting, and wider society scrutinising the outcome, for the Organization to make progress with the view to approving amendments by MEPC 75.

32 Following the Chair's suggestion and with a view to facilitating the preparations for ISWG-GHG 7, the Group agreed that goal-based measures should be pursued and that two approaches, i.e. technical approach and operational approach, should be further developed in parallel, taking into account the comments made at this meeting. In this connection, the Group noted that Japan offered to informally coordinate future work on technical approach¹ while China, Denmark and France offered to coordinate the future submission on operational approach, noting that it would benefit from collaborative approaches². Notwithstanding the above-mentioned offers, Member States and international organizations were invited to submit their own proposals if they wish to do so.

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33 The Group also invited the sponsor(s) of proposed measures to continue their work on impact assessment, paying particular attention to the needs of developing countries, especially SIDS and LDCs, in accordance with the procedure approved by the Committee and to submit their assessment to next meeting.

34 Noting the Group's desire to progress the work as quickly as possible and in particular that many delegations indicated their preference to approve draft amendments to MARPOL Annex VI at MEPC 75, the Chair indicated his intention to submit to the next meeting a concept paper, including possible regulatory framework for these two approaches. In welcoming the Chair's offer, the Group noted that this concept paper would include the possibility to combine the two approaches and that while this document would assist progress and provide the Group with a possible regulatory framework, the detailed requirements would still be negotiated by Member States.

Further consideration of concrete proposals to reduce methane slip and emissions of Volatile Organic Compounds (VOCs)

35 The Group recalled that it had been instructed to further consider concrete proposals to reduce methane slip and emissions of Volatile Organic Compounds (VOCs), taking into account documents submitted to ISWG-GHG 6 and relevant documents submitted to ISWG-GHG 5 and MEPC 74 (MEPC 74/18, paragraph 7.48).

36 The Group noted that no document had been submitted under this agenda item at this session. The Group recalled that five concrete proposals had been identified under the approaches No.6 (Develop regulatory measures to reduce methane slip) and No.7 (Develop regulatory measures to reduce emissions of Volatile Organic Compounds (VOCs) in annex 5 of document MEPC 74/WP.6 collating information regarding candidates' measures based on documents submitted to ISWG-GHG 5 and MEPC 74.

37 The Group, noting that the issue of VOC emissions had not been addressed in the discussion, and invited interested Member States and international organizations to submit concrete proposals to ISWG-GHG 7 suggesting a way forward on the reduction of VOC emissions.

38 The Group also noted that all delegations that spoke emphasized the importance of addressing the issue of methane slip in relation to the uptake of methane-based fuels. In this regard, the Group noted that the issue of methane slip would need further consideration including enhanced understanding of the problem, how methane slip could be measured, monitored and controlled and which measures could be considered by the Organization to address.

39 The Group noted the intention of the observer from SGMF to submit a document on the issue of methane slip to a future session.

40 All delegations that spoke supported the establishment of a dedicated workstream on the issue of methane slip, while recognizing that this was a very technical matter requiring specific expertise and may be more suitable to be considered by the PPR Sub-Committee. In view of the above, the Group invited interested Member States and international organizations to submit concrete proposals to ISWG-GHG 7 suggesting a way forward on the reduction of methane slip with a view to making a recommendation to the Committee.

Consideration of a draft MEPC resolution urging Member States to develop and update a voluntary National Action Plan (NAP) with a view to contributing to reducing GHG emissions from international shipping, and develop associated guidelines, as appropriate

41 The Group recalled that it had been instructed to consider a draft MEPC resolution urging Member States to develop and update a voluntary National Action Plan (NAP) with a view to contributing to reducing GHG emissions from international shipping, and develop associated guidelines, as appropriate (MEPC 74/18, paragraph 7.48).

42 The Group considered document ISWG-GHG 6/4 (Argentina et al.), proposing a draft MEPC resolution on encouragement of Member States to submit National Action Plans and providing information on the key principles that may be applied to NAPs and some examples of measures selected in some Member States' action plans.

43 The views expressed during the ensuing discussion that were forwarded to the Secretariat are set out in annex 4.

44 Following consideration, the Group agreed to a draft MEPC resolution on encouragement of Member States to develop and submit voluntary National Action Plans to address GHG emissions from ships as set out in annex 1, for further consideration and adoption by MEPC 75.

45 The Group noted the view of the delegation of the United Arab Emirates that NAPs, developed by some Member States, encompass national plans outlining actions to address climate change and GHG from all sectors including the maritime sector. Therefore, in their view, NAPs addressing the reduction of GHG emissions from ships should be labelled as National Maritime Action Plans (NMAPs) in the future revision of the Initial Strategy.

Further consideration of concrete proposals to encourage the uptake of alternative low-carbon and zero-carbon fuels, including the development of life cycle GHG/carbon intensity guidelines for all relevant types of fuels and incentive schemes, as appropriate

46 The Group recalled that it had been instructed to further consider concrete proposals to encourage the uptake of alternative low-carbon and zero-carbon fuels, including the development of life cycle GHG/carbon intensity guidelines for all relevant types of fuels and incentive schemes, as appropriate (MEPC 74/18, paragraph 7.48).

47 The Group considered relevant documents as follows:

- .1 ISWG-GHG 6/5 (Norway), providing the basis for what the purpose of the life cycle carbon intensity guidelines should be, taking into account the difficulty to establish full life cycle assessment of any fuel batch used in shipping; discussing principles for how to account for non-fossil fuels in shipping; suggesting in particular that for carbon-based fuels, the purpose of the life cycle GHG/carbon intensity guidelines should be to provide a method for determining the source of the fuel and based on that, carbon factors in line with IPCC Guidelines; suggesting also that the carbon content should be documented on the Bunker Delivery Note; and proposing to initiate a separate workstream for the development of carbon intensity guidelines building upon principles outlined in the document;

- .2 ISWG-GHG 6/5/1 (Republic of Korea), providing the views of the Republic of Korea on the development of life cycle GHG/carbon intensity guidelines for all types of fuels, suggesting an updated holistic approach in considering the development of these guidelines; identifying elements that should be taken into consideration regarding the analysis for inventory in GHG emissions in terms of each life cycle pathway; and providing an approach to address concerns about double-counting of emissions, suggesting to use two different concepts (C_F and C_{FLCA}) for different applications;
- .3 ISWG-GHG 6/5/2 (United Kingdom), identifying the need for short-term action to develop GHG intensity guidance for new fuels, suggesting to establish a workstream to develop carbon intensity guidelines at ISWG-GHG 7, with an initial focus on the "tank-to-wake" emissions of fuels/energy used on board ships; outlining the need for consideration of life cycle emissions in order to support the transition to low and eventually zero emissions fuels/energy sources, recommending in particular that any guidelines developed consider how non- CO_2 GHG operational emissions are quantified and to incorporate these quantifications into emission factors as soon as possible; and providing information on the key features of zero life cycle emissions fuels; and
- .4 ISWG-GHG 6/5/3 (CSC), providing input to discussion on the suitability of liquefied natural gas (LNG) as alternative fuel to decarbonize shipping, considering in particular methane slip from combustion in marine engine and from the supply chain; and concluding that LNG was not a climate solution for shipping.

48 The views expressed during the ensuing discussion that were forwarded to the Secretariat are set out in annex 4.

49 In view of the general recognition of the importance of this agenda item, the Group supported the establishment of a dedicated workstream for the development of life cycle GHG/carbon intensity guidelines for all relevant types of fuels. In this regard, the Group:

- .1 agreed that the priority for international shipping should be given to the development of "tank-to-propeller" emission factors for alternative fuels and that this work should cover terminology and accounting issues;
- .2 noted that it was important to be cognisant of upstream emissions ("well-to-tank") as these were relevant for assessing the sustainability of alternative fuels and that more information could be provided for further consideration;
- .3 invited interested Member States and international organizations to cooperate and submit proposals for draft guidelines on life cycle GHG/carbon intensity for all relevant types of fuels;
- .4 invited interested Member States and international organizations to submit studies on low-carbon and zero-carbon fuels/energy; and
- .5 invited interested Member States and international organizations to submit concrete proposals on the reduction of methane slip under the relevant agenda item (see paragraph 35 to 40).

Consideration of the development of further actions on capacity-building, technical cooperation, research and development, including support for assessment of impacts and support for implementation of measures

50 The Group recalled that it had been instructed to develop further actions on capacity-building, technical cooperation and, research and development (MEPC 74/18, paragraph 7.48).

51 The Group noted that no documents had been submitted under this agenda item at this session.

52 The Group noted that, upon request of the Committee, the Secretary-General, on 2 July 2019, had established the GHG TC-Trust Fund, a voluntary multi-donor trust fund to sustain the Organization's technical cooperation and capacity-building activities to support the implementation of the Initial Strategy. The Group further recalled that the Secretariat had submitted document MEPC 75/7 providing information on the establishment and operation of the Fund and inviting Member Governments and international organizations to consider making a financial contribution to the GHG TC-Trust Fund.

53 The Group noted that IMO and the Government of Norway had initiated the GreenVoyage-2050 project expected to complement and scale-up GloMEEP's most successful activities and support countries in the implementation of concrete measures that are identified in a country's National Ship Emissions Reduction Strategy (NSERS)/NAP. The Group also noted that, through Circular Letter No.4019, the Secretariat called for expressions of interest to join the project and that following the deadline to express interest, the selection of participating countries was currently being undertaken.

54 The Group further noted that, on 13 November 2019, the Government of Norway had signed an agreement with the Organization to bring an additional NOK 40,000,000 (\$4.3 million) to the GreenVoyage-2050 project. Several delegations expressed their interest in participating in the project and thanked the Government of Norway for its further financial support towards implementation of this important project.

Consideration of other proposals for candidate measures

55 The Group recalled that it had been instructed to consider other proposals for candidate measures (MEPC 74/18, paragraph 7.48).

56 The Group considered relevant documents as follows:

- .1 ISWG-GHG 6/7 (Norway), elaborating on the need and possible approaches for providing a flexible compliance mechanism for meeting CO₂ and GHG requirements, where ships will have an equivalent means of compliance in cases where no other options are available; and informing that Norway intends to develop a more specific proposal to a future meeting; and
- .2 ISWG-GHG 6/7/1 (Finland), presenting a study providing an overview of the identified challenges and measures in implementing digitalization as a tool to reduce GHG emissions in shipping, together with other measures and focusing on interfaces between different actors of the maritime transport; and identifying measures to enhance implementation of digitalization as an emission reduction tool in maritime transport.

57 The views expressed during the ensuing discussion that were forwarded to the Secretariat are set out in annex 4.

58 The Group noted the information provided in document ISWG-GHG 6/7/1 and delegations that spoke recognized the potential merit of digitalization as a tool to reduce GHG emissions from international shipping, highlighting concrete applications to improve shipping and port operations e.g. just-in-time arrival.

59 With regard to document ISWG-GHG 6/7, the Group noted the views and information provided and the concerns and reservations expressed by several delegations about referring to "out of sector" solutions. The Group also noted that any alternative compliance mechanism should not hamper the level playing field. The Group further noted Norway's intention to submit a refined proposal on this issue to a future session.

Any other business

60 The Group noted the information provided in document ISWG-GHG 6/8 (Secretariat), reporting on the outcome of the United Nations Climate Action Summit held on 23 September 2019 in New York, United States.

61 The Group considered the new approach to the report format, whereby unless otherwise agreed by the Group, comments made by delegations and forwarded to the Secretariat would be collated in an annex to the report, that had been proposed by the Chair and agreed by the Group on a trial basis only.

62 The Group agreed to continue to use this report format at its next meeting (ISWG-GHG 7), subject to future review by the Group itself and by the Committee, and noted the view of some delegations that this approach should not be a template for reporting by other bodies of the Organization.

Action requested of the Committee

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

- .1 note the progress made by the Group on the further consideration of concrete proposals to improve the operational energy efficiency of existing ships, with a view to developing draft amendments to MARPOL Annex VI and associated guidelines, as appropriate (paragraphs 7 to 34 and annexes 3 and 4);
- .2 note the summary of key technical aspects of measures proposed under agenda item 2 as set out in annex 2;
- .3 note the progress made by the Group on further consideration of concrete proposals to reduce methane slip and emissions of Volatile Organic Compounds (VOCs) (paragraphs 35 to 40);
- .4 consider, with a view to adoption, the draft MEPC resolution on encouragement of Member States to develop and submit voluntary National Action Plans to address GHG emissions from ships (paragraphs 41 to 45 and annex 1); and
- .5 note the progress made by the Group on further consideration of concrete proposals to encourage the uptake of alternative low-carbon and zero-carbon fuels, including the development of life cycle GHG/carbon intensity guidelines for all relevant types of fuels and incentive schemes, as appropriate (paragraphs 46 to 49).

ANNEX 1

DRAFT MEPC RESOLUTION ON ENCOURAGEMENT OF MEMBER STATES TO DEVELOP AND SUBMIT VOLUNTARY NATIONAL ACTION PLANS TO ADDRESS GHG EMISSIONS FROM SHIPS

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization (the Organization) concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution from ships,

HAVING ADOPTED resolution MEPC.304(72) on *Initial IMO Strategy on reduction of GHG emissions from ships* (the Initial Strategy),

NOTING that the Initial Strategy includes, inter alia, a candidate short-term measure to encourage the development and update of national action plans to develop policies and strategies to address GHG emissions from international shipping in accordance with guidelines to be developed by the Organization, taking into account the need to avoid regional or unilateral measures,

NOTING ALSO the role of Member States in extending the emission reduction efforts to all shipping-related sectors which are not necessarily covered by the Organization's conventions,

NOTING FURTHER resolution MEPC.323(74) on Invitation to Member States to encourage voluntary cooperation between the port and shipping sectors to contribute to reducing GHG emissions from ships,

RECOGNIZING that many Member States are already taking actions at national level to facilitate the reduction of GHG emissions from ships,

COMMENDS those Member States that have already prepared National Actions Plans and encourages them to share their experiences with the Organization,

RECOGNIZING that IMO has, in 2015, launched the Global Maritime Energy Efficiency Partnership (GloMEEP) Project, with 10 developing countries as lead pilot countries (LPCs). Under the project, by offering several generic guide documents, the Organization has successfully assisted LPCs to develop national strategies to address emissions from ships,

RECOGNIZING ALSO the value of mobilizing national resources, promoting experience and information-sharing and cooperation for all national stakeholders,

HAVING CONSIDERED the recommendation of the sixth session of the intersessional meeting of the Working Group on Reduction of GHG emissions from ships (ISWG-GHG 6),

1 INVITES Member States to voluntarily submit their National Action Plans to the Organization, outlining respective policies and actions, as soon as possible, and provide updates, as relevant, thereafter;

2 SUGGESTS the National Action Plans could include but are not limited to:
(a) improving domestic institutional and legislative arrangements for the effective implementation of existing IMO instruments, (b) developing activities to further enhance

the energy efficiency of ships, (c) initiating research and advancing the uptake of alternative low-carbon and zero-carbon fuels, (d) accelerating port emission reduction activities, consistent with resolution MEPC.323(74), (e) fostering capacity-building, awareness-raising and regional cooperation and (f) facilitating the development of infrastructure for green shipping;

3 INVITES ALSO Member States to elaborate on those arrangements (legal, policy, institutional, etc.) that they put in place or plan to do so to support emission reduction from ships, in accordance with their national conditions, circumstances and priorities;

4 ENCOURAGES those Member States to initiate early actions to facilitate the reduction of GHG emissions from ships without awaiting the entry into force of measures in the IMO context;

5 REQUESTS the Secretariat to continue to provide guidance and any further action which may be taken (e.g. through the GloMEEP, GMN and Green Voyage 2050 projects) to assist Member States including developing countries, in particular SIDS and LDCs, for the development of National Action Plans;

6 REQUESTS ALSO the Secretariat to facilitate the sharing of relevant information provided in the submitted National Action Plans;

7 REQUESTS FURTHER the Member States to bring this resolution to the attention of all stakeholders on a national scale, including Administrations, ports, ship designers, engine manufacturers, fuel suppliers, seafarers and other interested groups.

ANNEX 2*

KEY TECHNICAL ASPECTS CONSIDERED BY THE GROUP ON MEASURES PROPOSED UNDER AGENDA ITEM 2

Note: this annex is for information only and is collating information on key technical aspects of measures proposed under agenda item 2 (Further consideration of concrete proposals to improve the operational energy efficiency of existing ships, with a view to developing draft amendments to chapter 4 of MARPOL Annex VI and associated guidelines, as appropriate), as listed in paragraphs 13 and 16 of the report and provided by the proponents during the discussion.

Measure and reference document	Application and enforcement aspects (cf. paragraph 13 of the report)	Reference lines and reduction targets (cf. paragraph 16 of the report)
Energy Efficiency Existing Ship Index (EEXI) ISWG-GHG 6/2/3 (Japan and Norway)	Paragraph 13.1. Application to all ships included in EEDI categories, irrespective of the year of construction, including pre-EEDI ships and ships constructed under EEDI phase 0 and 1. Possible later to expand the scope to niche ship segments. Paragraph 13.2. EEXI would mandate ships to be surveyed and certified by flag Administration before ship's operation. Paragraph 13.3. Flag State would be responsible to ensure ships are in compliance with the mandatory limit of EEXI through survey and certification. Port States would be able to check whether ships are maintaining the limit and are in compliance with regulations by checking engine logs and/or mechanical sealing. Paragraph 13.4. We have no idea how equivalency could be established between two different mechanisms. These two should not be optional.	Paragraph 16.1. The initial calendar year could be the year of entry into force of the amendments to MARPOL annex VI. Ships must be surveyed and certified by the first intermediate or renewal survey – whichever comes first – on or after the date of entry into force. EEXI uses EEDI reference lines as a baseline. The mandatory requirement is based on energy efficiency compared to the reference line of the year around 2008, which should ensure that early movers and already sufficiently efficient ships are not penalized. Paragraph 16.2. Same reduction target as the EEDI reduction rates in effect on the year of entry into force of the measure (e.g. reduction rates of EEDI phases 2 and 3, depending on the ship type, if the measure enters into force in 2022). Paragraph 16.3. One 2030 reduction target. No need for intermediate targets as ships must technically meet the requirement by the implementation deadline (first intermediate or renewal survey).

* In English only.

Measure and reference document	Application and enforcement aspects (cf. paragraph 13 of the report)	Reference lines and reduction targets (cf. paragraph 16 of the report)
		Paragraph 16.4. EEXI is a goal-based measure with a technical approach and it can incorporate many innovations. For example, EEXI can include coefficient factors to take into account the use of innovative fuels, as can EEDI. The Correspondence Group on Possible Introduction of EEDI Phase 4 has been discussing this issue. So far, the proposal envisages only one goal requirement, but it will be possible to have in the future further phase(s) if the Committee decides so. EEXI will contribute a lot to the third level of ambition.
Mandatory power limitation on ships ISWG-GHG 6/2/12 (BIMCO)	Paragraph 13.1. Ship types as per EEDI focusing on dry and wet bulk and containerships. Paragraph 13.2. Power limit feature: - in compliance or not; - override with the logging feature to demonstrate when and why used. Paragraph 13.3. Flag State approves and certifies power limiter. Port State verifies power limiter when in use. Paragraph 13.4. Agree with China (see below).	Paragraph 16.4. This measure will have an effect in 2050 if applied to ships that will still be operated at that time. It is hard to say now to what extent emission reductions in the short-term will have an effect in the long-term.
Goal-based short-term reduction measure ISWG-GHG 6/2/11 (Denmark et al.)	Paragraph 13.1. The goal-based short-term measure should include all ships of 400 GT and above. It sets mandatory goal and targets for new and existing ships, meaning both EEDI and pre-EEDI ships. Specifically, the ship types and sizes that are covered in the EEDI regulation.	Paragraph 16.1. 2008 is the baseline year as given by the Initial Strategy. 2023 is the first target year as given by the Initial Strategy. 2030 is a goal-year as given by Objective 2 of the Initial Strategy. Other goal years can be added to these figures. Attained operational carbon intensity is taken into account – achieving the targets and goals must be based on the combined efforts of all means and tools with operational effect.

Measure and reference document	Application and enforcement aspects (cf. paragraph 13 of the report)	Reference lines and reduction targets (cf. paragraph 16 of the report)
	Paragraph 13.2. The shipowners must develop and implement a SEEMP (plan), which takes all relevant existing and potential future solution into consideration. The plan describes how to operate the ship to increasingly reduce carbon intensity. Important to train crew to know the plan and operate accordingly. Paragraph 13.3. Flag State issues the IEE Certificate based on the ship's SEEMP (plan). This would likely include that the ship must have systems in place to be able to document how the ship follows the plan when port State control checks the plan, crew's knowledge of plan, and reports of performance.	(for more details look at figure 2 and table 1 in document ISWG-GHG 6/2/11) Paragraph 16.2. Our starting point, which we think is a fair differentiation, is to apply the same reduction targets to the ships covered by this regulation. However, as we have different reference lines for each ship type, all ships will in effect have different reduction trajectories, as they have different points of departure on the different reference lines in 2008 base year. Thus, there is a difference between ship types and sizes. The targets are relative – in percentage – not nominal/absolute targets. Paragraph 16.3. Target years can be annual or three-yearly. Paragraph 16.4. As a goal-based measure, the proposal enables the use by shipowners of all possible known options and innovative solutions. Therefore, it contributes to the achievement of the third level of ambition and incentivizes the decarbonization of shipping. Maximizing the flexibility and giving full control to each shipowner and operator to select the combination of the solutions that suit their circumstances will ensure achievement of the objectives with the maximum cost effectiveness.
Strengthening of the SEEMP and prescriptive approach by sector ISWG-GHG 6/2/4 (Greece)	Paragraph 13.1. For the general part of the proposal, the measure applies to all new and existing ships subject to SOLAS, Chapter IX. The goal setting is mandatory but the appropriate index (KPI) is selected by the shipowner and is not defined by IMO. The prescriptive part consists of the use of a power limiter installed and operated by all existing bulk carriers, tankers, containerships etc. over 5000 GT engaged in international voyages. The line between new and existing ships has not been defined in the proposal, but a possible date could be the regulations' entry into force.	Paragraph 16.1. The initial calendar year could be 2022 if possible, or 2023 at the latest. The proposal does not use EEDI reference lines as a baseline. The proposal already takes into account the reduction in emissions achieved in 2012 compared to 2008. Paragraph 16.2.

Measure and reference document	Application and enforcement aspects (cf. paragraph 13 of the report)	Reference lines and reduction targets (cf. paragraph 16 of the report)
	Paragraph 13.2. The ship has to comply with SEEMP which becomes mandatory within ISM Code. In addition, all existing bulk carriers, tankers, containerships etc., over 5000 GT have to install and operate a power limiter the same as described in the document ISWG-GHG 6/2/3. Depending on its size and category any ship has to operate in compliance with the first or of both requirements. Paragraph 13.3. The ISM Code auditor of the flag State or the RO audits the proper implementation of SEEMP and in particular how the ship optimizes its speed, defines its optimum operational range, plans and executes each voyage according to SEEMP and finally checks that the attained KPI was in accordance with the goal set in SEEMP. In addition, the surveyor of the flag State or its RO oversees the installation of the power limiter on the main engine(s) onboard existing bulk carriers etc. and upon satisfactory inspection he/she certifies its proper operation. The new item is included in the renewed IAPPC and the reduced power is added on it. These elements provide adequate documentary evidence for the port State control to verify its compliance. Paragraph 13.4. Clear preference for one measure per sector as the competition among existing ships is within the sector and not between two ships of different sectors. Even if there is a possibility for equivalent approach, Greece is against offering two or more options as it is likely that a two-tier market could be created within particular segments. Nevertheless, Greece is willing to discuss the possibility of applying the proposed approach to bulk carriers/tankers and another approach to a different sector (sectoral approach with only one measure per sector). This could be done on the basis that it would deliver the same results. This would mean in our case it would re-instate the slow steaming observed in 2012.	The proposal applies the same reduction targets to all ship types and deadweight, and in a commensurate (proportionate) manner as it applies a uniform power reduction factor to all existing ships in the same sector. In the study it has been demonstrated that there is no need to differentiate between pre-EEDI and EEDI ships over 5000 GT, as they behave in the same manner. However, it is acknowledged that there may be cases, where the flag State may relax the reduction factor due to safety considerations. The power should not exceed in any case 75% of MCR. Exemptions provided by the flag state are envisaged for ships continuously using fossil-free fuels only. Paragraph 16.3. MEPC in 2027 will thoroughly review the data provided by DCS for the period 2019-2026. This shall enable an accurate assessment of the effectiveness of the implemented measures towards the 2030 target, and the making of appropriate decisions. Rectification action may include the extension of the scope of the measure and/or the re-adjustment of the power limits taking account of the experience that will have been accumulated during the implementation period. Paragraph 16.4. The proposal also leads to absolute emission reduction towards the 2050 targets. The measure should initially peak GHG emissions as quickly as possible and keep the absolute overall emissions to the low levels that have been observed in historical slow-steaming some years ago. The measure generates relative and absolute emission reductions. In order to incentivize innovation, exemptions could be envisaged for ships using fossil-free fuels. For example, the power limitation could be relaxed when the fuel used has a reduced carbon content.

Measure and reference document	Application and enforcement aspects (cf. paragraph 13 of the report)	Reference lines and reduction targets (cf. paragraph 16 of the report)
Strengthening of SEEMP, including one or two SEEMP schemes ISWG-GHG 6/2/6 (Bahamas et al.)	Paragraph 13.1. The co-sponsors consider that the proposed SEEMP Scheme A and SEEMP Scheme B would have the widest possible application as a universal measure, however actual application would be determined by whether it was decided to link the measure to SMS as required by the ISM Code or to the ships IEEC. Given that there are some differences in scope of application between the ISM Code (SOLAS Chapter IX) and SEEMP (regulation 22 of MARPOL VI), there would be some differences, however either option would capture the majority of international trading ships (and those ships which emit the overwhelming majority of emissions to air). Paragraph 13.2. In the case of SEEMP Scheme A, the ship would utilize carbon intensity indicators (CIIs) to demonstrate emissions reduction, as part of an enhanced SEEMP which would be subject to mandatory review and audit/survey (according to whether the measure is linked to ISM or the ships IEEC survey). The co-sponsors consider that in many respects SEEMP Scheme A is closely aligned with the proposals of Denmark et al. in document 6/2/11. In the case of SEEMP Scheme B the ship would have to satisfy the requirements of EEXI proposed by Norway and Japan in document 6/2/3 and be assigned the necessary EEXI value. Paragraph 13.3. The flag Administration would be responsible for approving the enhanced SEEMP (Scheme A or Scheme B as applicable) and conducting survey/audits (depending on whether the measure is linked to the ISM Code or IEEC survey) to verify compliance. The port State would have the privilege of conducting inspections to confirm that the ship had been properly certificated by the flag Administration. The co-sponsors consider that it would work in exactly the same way as for other IMO instruments.	Paragraph 16.1. The initial calendar year would be dependent upon how quickly the measure could be agreed and adopted and enter into force, however the co-sponsors believe that it would be possible for the measure to enter into force by 2023. The measure would use EEDI baselines as a proxy for 2008 transport work emissions for defining the necessary CII or EEXI objectives, whilst it is recognised that the EEDI reference line would be a proxy for actual 2008 transport work the co-sponsors are confident this is acceptable and that the proxy would be reasonably representative of 2008 emissions. The disadvantages of using a proxy are considered to be outweighed by the advantages of EEDI reference lines already being available, facilitating a rapid introduction of the measure without needing to await the outcome of completing the necessary work to establish a true 2008 base. Paragraph 16.2. The proposal would utilize EEDI reference lines, which were developed for specific ship types and which vary by ship size. Paragraph 16.4. Short-term measures should be primarily focused on achieving the 2030 levels of ambition of the Initial Strategy. However, measures which encourage the industry to innovate and introduce low-emission technologies would be of benefit in moving the industry towards the longer-term levels of ambition. As a composite proposal, the co-sponsors consider that both SEEMP Scheme A and SEEMP Scheme B as goal-based measures would both deliver the 2030 level of ambition whilst also encouraging innovation and introduction of new technologies as explained by Denmark in their comments for document ISWG-GHG 6/2/11 and by Japan in their comments for document ISWG-GHG 6/2/3.

Measure and reference document	Application and enforcement aspects (cf. paragraph 13 of the report)	Reference lines and reduction targets (cf. paragraph 16 of the report)
	Paragraph 13.4. The co-sponsors recognize that this would need further detailed work, but since the 2030 level of ambition is defined in terms of transport work relative to a 2008 base year then it is considered that appropriate transport work metrics would be used for both SEEMP Scheme A (CIIs) and SEEMP Scheme B (EEXI), both CIIs and EEXI would be transport work metrics (i.e. Derived from grams of CO₂ emitted per Tonne-Km or Tonne-mile).	
Goal-based approach and speed optimization ISWG-GHG 6/2/7 (France and Monaco)	Paragraph 13.1. All new and existing ships of 400 GT and above (MARPOL Annex VI, chapter 4). The scope could be limited to EEDI categories ships if the choice to use EEDI reference lines is made. Paragraph 13.2. The ship will choose a method to improve its energy efficiency within a toolbox (e.g. including power limitation, speed optimization, other operational measures, etc.) and a technical indicator. The ship must have a continuous monitoring system for this indicator to enable the vessel to know at any time its performance in relation to the reduction targets. Paragraph 13.3. Flag State certifies SEEMP as part of an initial survey, followed by periodic surveys and renewals, within the IEE Certificate survey regime. The initial survey verifies SEEMP's compliance with MARPOL Annex VI and its guidelines and approves the choice of the reduction method and the installation of the monitoring device. If necessary, a sea trial is carried out. Port State verifies the validity of the certificates, that the ship implements its reduction method (via the records on board), and that it is compliant (via the indicator and the monitoring interface).	Paragraph 16.1. Use of EEDI reference lines. The reference lines do not take 2008 as a reference year, but the evolution between 2008 and 2013 could be evaluated and this delta integrated into the definition of the targets. It is also necessary to take into account the effort already made by EEDI ships, for vessels that comply with the required value but also for those that exceed the regulatory target. Paragraph 16.2. The target should be defined by ship types and sizes. No need for exemptions, as the EEDI categories already excludes a lot of specific vessels. Paragraph 16.3. The reduction target should gradually increase by 2% per year between 2023 and 2030. Depending on the choice of reference, it may be one target per ship or one target per ship category. Paragraph 16.4. The contribution of this proposal to the third level of ambition is similar to the one explained by other goal-based measures, in particular the one proposed in document ISWG-GHG 6/2/11. In addition, the proposal includes a stringent and continuous monitoring that will be useful to take stock at regular intervals of the progress toward the 2050 objective.

Measure and reference document	Application and enforcement aspects (cf. paragraph 13 of the report)	Reference lines and reduction targets (cf. paragraph 16 of the report)
	Paragraph 13.4. It is not possible to directly combine the objective-based approach and EEXI. Indeed, one covers all the parameters of the ship's operation and the other is limited to taking into account the technical parameters of the ship. As a compromise between the two approaches, the goal-based approach could take into account all operating parameters, and as part of this approach EEXI can be used as one of the elements to achieve the target (cf. very detailed method presented in document ISWG-GHG 6/2/3 to take into account the power limitation).	
Maximum absolute speed for bulkers and oil and chemical tankers ISWG-GHG 6/2/8 (France)	Paragraph 13.1. Any new and existing bulker, oil or chemical tanker of 400 gross tonnage and above. Paragraph 13.2. France proposes to monitor speed through water: - the AIS transmitter of the ship should report speed through water continuously; - monitoring device on board. Paragraph 13.3. Flag State ensures that AIS transmitter is configured to report speed through water continuously and that a speed monitoring device is on board. Flag State can also cross-check compliance thanks to the DCS data of the ship (annual average speed over ground). Coastal State can monitor and control: - speed through water through AIS data; - speed over ground through radar tracks. Port State can monitor and control: - speed through water through AIS data; - speed over ground through radar tracks; - average voyage speed taking into account the time elapsed since the ships previous call.	Paragraph 16.1. Initial calendar year as soon as possible and anyway before 2023. The proposal does not use EEDI reference lines as a baseline. Nevertheless, slow steaming has already been implemented since 2008 on a voluntary basis. The speed limitations proposed are based on the average speeds monitored in early 2019 minus 1 knot. Paragraph 16.2. Speed limitations are differentiated: - applicable only to bulker and oil and chemical tankers; - 10.5 knots for bulkers and to 11 knots for oil and chemical tankers. Already zero-carbon emitting ships and ships which already meet the 2025 EEDI requirement would be exempted from the speed regulation. Paragraph 16.3. The proposal does not include intermediary targets. Paragraph 16.4. The proposal will contribute to the objective of peaking "GHG emissions from international shipping as soon as possible", as slow steaming can be imminently implemented and has proved to be efficient in reducing GHG emissions. According to GISIS database, the number of ships affected

Measure and reference document	Application and enforcement aspects (cf. paragraph 13 of the report)	Reference lines and reduction targets (cf. paragraph 16 of the report)
	In case of non-compliance: - Flag State can impose temporary corrective additional speed reduction; - Port State can impose additional waiting time to the ship before accessing to berth.	are: 11,901 for bulkers and 14,883 for oil and chemical tankers. For these two categories together, the GHG reduction is estimated around 10%. The proposal won't directly help reach the objective "to reduce the total annual GHG emissions by at least 50% by 2050 compared to 2008" but will contribute to give it its full effect on reaching the Paris Agreement's temperature goals. Indeed, the pathway to reach 50% in 2050 is at least as much important as this very objective, regarding its effect on climate. The sooner we start to reduce emissions, the less GHG will have been emitted by international shipping in 2050.
Self-set annual CII target in the SEEMP and mandatory rating mechanism ISWG-GHG 6/2/9 and ISWG-GHG 6/2/10 (China) MEPC 74/7/19 (China)	Paragraph 13.1. All ships covered by IMO DCS for fuel oil consumption of ships under regulation 22A of MARPOL Annex VI (ships of 5,000 GT and above). Paragraph 13.2. At the beginning of the reporting period, a ship shall include in SEEMP a self-set CII target (shall be equal to or more ambitious to the required value) and include in SEEMP the specific methods to achieve the target. During the reporting period, the ship shall implement SEEMP and self-monitor the target. After the reporting period, based on the attained CII, a rating level can be assigned to the ship and be recorded in the Statement of Compliance (SOC). Paragraph 13.3. Flag States and port States shall take all responsibilities under DCS. Flag State surveys SEEMP, including the target and associated means, verifies the attained CII, assigns a rating level to the ship, records the rating level in SOC, and submit the attained CII and rating level of ships to the IMO fuel oil consumption Data base. Port State verifies the validity of SOC. In addition, they can establish some incentive measures to reward the superior ships.	Paragraph 16.1. The initial calendar year for target-setting and method selection, if early implemented, can be 2023. The performance rating can be assigned in the first few months in 2024. Use of reference lines based on factual historical performance, (e.g. from DCS and Fourth IMO GHG study), instead of EEDI reference lines. To take into account the potential reduction already achieved by ships, the 2008 carbon intensity estimation provided by the Fourth GHG study, with additional input from the IMO DCS, can be used. Paragraph 16.2. The reduction targets should be set based on the levels of ambition of the Initial Strategy, the historical performance, as well as the improvement potential. In this sense, different ship types and deadweight may be required to achieve different targets. However, the international shipping as a whole, should achieve the level of ambition. No need for exemption at this stage, since no penalty is envisaged. If a penalty has been introduced after in-depth discussion, there is need for exemptions, especially for shipping serving LDCs and SIDS . Paragraph 16.3. The proposal includes not only the 2030 target, but also an incremental reduction rates overtime. Based on the reference line and reduction rate, the decreasing required carbon intensity levels can be derived.

Measure and reference document	Application and enforcement aspects (cf. paragraph 13 of the report)	Reference lines and reduction targets (cf. paragraph 16 of the report)
	Paragraph 13.4. No equivalency between the technical efficiency scheme and the operational scheme. The pass-on effect of design efficiency on operational performance depends on many other factors (e.g. sailing speed, capacity utilization, weather condition, etc). A 10% improvement in design efficiency can trigger a different improvement in operational performance. The statistical data can generate some results, but the results change significantly with the data. No equivalency between EEXI and any operational indicator, because we cannot compare a constant design efficiency level to a random operational performance.	Paragraph 16.4. Since the rating mechanism is expected to guide the international shipping to decrease the carbon intensity overtime, it can be continuously implemented after 2030, with the same reference lines but larger carbon intensity reduction rates, in line with the 2050 carbon intensity target, thus consequently contributing to the 2050 absolute GHG reduction target. The exact number depends on the reduction rates and the transportation demand.
Maximum average annual speed ISWG-GHG 6/2/13 (CSC)	Paragraph 13.1. All ships, but keeping the burden on industry as low as possible. Need to target those ships that are responsible for the greatest emissions. The measure would apply to: - Containerships above 1,000 TEU - Bulk carriers above 1,000 DWT - Oil and chemical tankers above 5,000 DWT - Liquid and gas carriers - General cargo ships above 5,000 DWT - Cruise ships above 2,000 GT There could be exemptions for particular routes or trades. Paragraph 13.2. Average annual speed. Paragraph 13.3. Data collection system.	Paragraph 16.4. This measure is not intended to solve everything. It targets one particular aspect of the problem. Speed reduction is the first and most obvious thing to do in the short-term. It can lead to steep emission reduction in the short-term and preserve the carbon budget for international shipping so permitting more time for other measures to be developed and enacted.

ANNEX 3*

STATEMENTS BY DELEGATIONS

Statement by the delegation of the Marshall Islands

"As the Marshall Islands' new Ambassador in Europe and given this is my first time taking the floor in the IMO, let me begin by personally thanking you for your leadership, and that of the Secretary-General. As you know, my country – as one of the world's lowest-lying isolated coral atoll nations – is on the frontline of the fight against climate change, and also understands the importance of the global shipping industry more than most.

Distinguished delegates, in the coming days, we will discuss in detail the various short-term measures that have been put forward to help achieve the ambitious long-term plan we agreed last year for shipping to begin to play its part in reducing emissions. Today, I want to focus on the key principles that we must use as our guiding stars as we consider and develop these short-term measures.

First, the measures that we will agree on must be in line with the Paris Agreement and with the Initial Strategy and put us on a "no more than 1.5 degree" pathway, which is so central to our country and many others' survival. As we said before, the science tells us that pathway would mean a 70% carbon intensity reduction by 2030, and 100% GHG reduction by 2050. We all know that the IMO was not ready to make that level of commitment in 2018 and we accepted the compromise of "at least" in the text.

Chair, we now have IPCC's clear evidence on 1.5 degree. We are confident that IMO will do the right thing and go well beyond the minima it set itself. We must make sure IMO adopts policy measures that can achieve what science tells us is necessary. We need to ensure that shipping emissions peak as soon as possible, and that they start declining before 2023.

To do this, we must agree on measures that are genuinely effective. Among other things, this means that the measures must have a guaranteed impact on operational carbon intensity, that they set unambiguous mandatory limits, and that there is a suitable enforcement mechanism.

In our effort to reduce emissions, we also need to understand the shipping industry's needs, and help it meet the agreed targets in a cost-effective way, incentivizing innovation. Thus, we need measures that allow for the broadest set of options for improving operational carbon intensity and maximize the potential for each ship to find the most affordable way to reach their given target.

For countries like my own, we also need to find a balance between emissions reduction and potential disproportionately negative effects that reduction measures might have. This concern is shared by other Small Island Developing States and Least Developed Countries. In order to achieve that, we will need to address and mitigate these impacts specifically. But first, we must identify and assess their scope, which is why the impact assessments (whether initial or comprehensive) for the agreed measures have to take into account the special circumstances of SIDS and LDCs.

Mr. Chairman, distinguished delegates, the Initial Strategy has shown that together we can find common grounds and put forward ambitious goals. While the emission reduction targets contained in the Initial Strategy are not yet in line with the Paris Agreement's 1.5 degree limit, they are a promising start which provide a sound basis for adopting effective and coherent

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short-term measures. We are confident that this week will be a key moment to achieve that. And if the Initial Strategy is to be effective, that must be our measure of success.

Kommol tata and thank you very much."

First statement by the delegation of the Cook Islands

"Connectivity, connectivity is all important to remote island states such as the Cook Islands. In the Cook Islands we have one ship arriving to the main island Rarotonga every 15 days or so and if an even smaller ship is available, we aim to serve our northern island chain on a two-monthly cycle. As we speak, no such ship is available and islands in our Northern chain some 800 miles from the main island are out of fuel and running out of essential supplies. Such is the reality of shipping, or lack of, in our Pacific region.

While most other regions have enjoyed improved connectivity, there has not been any systematic improvement in the Pacific small island developing states and we continue to suffer from low shipping connectivity. As a result, trade in essential goods and services is costly and shipping remains uncompetitive.

The smaller operators face increasing pressure from consolidation on regional routes impacting on freight rates, efficiency, reliability and quality of service to remoter island chains like ours, given their increased vulnerability to reduced connectivity.

While in most connected countries the connectivity index has continued to rise, the least connected countries including the Pacific islands saw little or no improvement. Meaning that trade in shipped goods remains problematic with economic knock on effects. Bottom line is an increasing difference between the most and least connected countries.

To exacerbate such a situation, we are now served notice of a 6/8% increase in freight rates on the ships that can serve our size/draft restricted port(s) due to IMO 2020. This before we even feel the inevitable cost increases of whatever measures will be needed to be taken in order to further reduce shipping's carbon footprint.

Now Chair let me comment on the submissions before us under agenda item 2. We thank all those submitters for the extensive work and the effort clearly needed to develop the proposals. Regrettably however there is a common theme when it comes to consideration of impacts on island states such as ours that are a fundamental requirement of the initial strategy, in that impacts, disproportionate or not, are simply not recognised or if they are then dismissed as negligible or an irrelevance. This Chair does little credit to the submitters and is unacceptable.

Let us be clear the Cook Islands stands firm in supporting further reductions of shipping's emissions. We do so in both the spirit and intent of ALL the elements of the initial strategy and we expect our colleagues from other member states to do no less, not the least in a thorough and realistic assessment of potential impacts on remote SIDS like ours when developing a measure for consideration and if disproportionate as those before us at this session clearly are desist from offensive suggestions that we adjust our shipping needs accordingly.

Chair, the content of our statement hopefully conveys the reality that this is easier said than done."

Statement by the delegation of Tonga

"After the initial discussions on impact assessments, we have done some further thinking and would like to share a suggestion for how we might address some of the issues raised on impact assessments.

We have a conundrum in front of us.

On one hand our absolute priority is to adopt and implement measures as quickly as possible to reduce GHG emissions consistent with a 1.5°C pathway for our very survival. On the other hand, due to poor data availability and lack of published research, the impact assessments provided so far do not adequately consider the impacts on SIDS and LDCs as our colleague from Cook Islands so eloquently pointed out. So, we are not able to determine whether the short-term measures proposed will result in a disproportionate negative impact on Pacific SIDS or not.

So, we need to come up with possible solutions which allow us to progress and protect States such as the Pacific SIDS from disproportionate negative impacts.

As has already been mentioned in the past two days, our economies are minute and we do not have the market driven economies that exist in the majority of the world. The tankers, general cargo and containerships that bring the essential goods to our States are relatively small being mostly less than 10,000 gross registered tonnes. For the more remote islands the vessels are even smaller. The ship that serves the islands on a route between Hawaii, the Line islands of Kiribati and the Northern Cook Islands, the **SV Kwai** for example, is only 179 tonnes. Some of our governments also own ships which operate internationally. All of these are less than 2,000 tonnes.

The most obvious way to avoid disproportionate impacts on SIDS and LDCs is exemptions. However, exemptions would remove the requirement and incentive for shipowners to take action, which could lead to a situation where others have more efficient ships over time and we are left with less efficient ones. For example, IMO policy reliant on exemptions could further widen the gap between SIDS and the rest of the world in terms of transport services.

We have also heard clearly the preference for a level playing field and for measures to apply to all ships. For that reason, we are opposed to blanket exemptions for ships serving SIDS and LDCs, with the exception of for disaster response.

We would therefore like to propose a possible solution to this conundrum. It comprises a package made of four components: research specifically on SIDS and LDCs, phased implementation of measures, dedicated funding to support R&D and uptake of technological solutions for the ship types that serve SIDS and LDCs, and monitoring and review.

First, we would like to request the Secretariat to work with other UN agencies with competency such as UNCTAD and UNESCAP and a representative selection of developing countries, SIDS and LDCs to undertake specific studies on the transport costs and economics of shipping for SIDS and LDCs. This will provide us with information which can be used moving forwards in development of GHG emissions reduction measures and the associated impact assessments. This needs to be done before implementation of short-term measures, but would not be required prior to adoption of a measure.

The second component would be to have short-term exemptions for the ships, such as passenger, general cargo, tanker and containerships, of 10,000 tonnes or less that serve SIDS and LDCs thereby allowing those ships additional time to comply whilst solutions appropriate

to States such as ours are developed. This could be for example a 5-year exemption, but we are open to alternative suggestions as to the length of time needed. We note that the proposed short-term measures have a variety of minimum size thresholds already, so this may just require a review of those thresholds. In addition, we would suggest blanket exemptions for disaster response.

The third component is dedicated funding to support R&D and uptake to enable innovation in the type of international shipping that services SIDS and LDCs in particular. This could be from the revenue generated by the flexible compliance mechanism proposed by Norway, from the voluntary Trust Fund to assist implementation of the Initial Strategy agreed to at MEPC 74, or from other options we have yet to consider such as a levy or other MBM. Several Pacific States have submitted to past meetings on the need to progress the development of MBMs as a priority for this reason. This should not limit future discussions on how revenue from MBMs should be allocated, and I would like to remind us all that at MEPC 59 we agreed that the greater part of any funds generated by MBMs under IMO should be used for climate change purposes in developing countries, SIDS and LDCs. We remain of the view that MBMs need to be considered sooner rather than later.

The final component of our proposal is in relation to the monitoring and review of each measure that is adopted and implemented. We suggest that each measure adopted should be reviewed post implementation both to review whether there are any disproportionate negative impacts on SIDS and LDCs and to enable amendment of the measure or adoption of a means to avoid, remedy or mitigate such impacts but also to assess its effectiveness in terms of actual emissions reductions achieved. We suggest that the reviews be undertaken 3 years, 5 years and 10 years after implementation.

Along with much greater specific consideration of SIDS and LDCs in the comprehensive impact assessment, these steps could allow us to go ahead and adopt and implement short-term measures, whilst giving assurance to States such as Pacific SIDS that should impact assessments be subsequently proved incorrect or means to address impacts insufficient, that a measure can be reviewed and amended accordingly.

We are happy to work with others to further develop and refine our proposal, but we do need to come up with a pragmatic solution that will allow us to quickly adopt measures that reduce emissions to the maximum extent possible whilst protecting States such as ours from the risk of disproportionate negative impacts.

If anyone is interested in working with us on this between now and the next intersessional please let us know."

Second statement by the delegation of the Cook Islands

"We should reflect on the fact that it is only a few years since the World Maritime Day theme was "Shipping – Indispensable to the World". The importance of shipping to society, not least the SIDS and LDCs, gives the IMO's work a significance that reaches far beyond the industry itself.

We should take into account some of the work done by UNCTAD highlighting the role of freight transport, including maritime transport, which is 90% of global transport, in addressing global sustainability and the resilience agenda. It also noted that the developing countries in particular face higher transport costs with limited transport connectivity and access to our markets, which impacts on many other people. So, it is right and proper that we thank all those who have submitted measures and recognise the importance of assessing all these measures and identifying any linkage between them to try to get the best from them all.

We would like to offer our thanks to Mr Oftedal and his team for finalising on the impact on states because as these measures are further developed it is imperative that we take into account the subsequent impacts, not the least disproportionate impacts on states.

I note that we are going back nine years to a reincarnation of the MBM ideas. Let us be clear, taking into account what UNCTAD was saying about our high transport costs, lack of connectivity to markets, any notion of imposing a tax, levy or tariff on shipping thus increasing our transport costs and reducing the availability of freight even further would be extremely detrimental to SIDS and LDCS, and severely impact our social fabric and inhibit our growth and development potential.

I would also make reference to UNESCAP and the recognition of the need for sustainable sea transport in the Pacific and the vital need for regional cooperation and integration. It went on to say that the future of the Pacific economies and the potential for trade will therefore depend on effective sea transport for the foreseeable future.

The impact of a number of these measures could be disproportionate, which concerns us greatly. That being case, out of all the measures there, it would appear to us that the only one that could satisfy and link in with what UNCTAD and UNESCAP have said would have to be an optimum speed measure, if indeed speed measures are to be imposed by the Organization. But those measures could only be on global shipping on international routes.

In our case the goods come from far afield to get to the main regional distribution ports, which in our case would be Auckland and goods then have to get out to us at the end of the supply chain, deep into the Pacific, with irregular sailings by a limited number of ships of the size that can serve our region. Therefore, it may be that once reaching those major distribution ports we will have to consider exemptions for that tonnage in then serving outlying islands."

ANNEX 4*

COLLATION OF VIEWS EXPRESSED DURING THE DISCUSSION THAT WERE SENT TO THE SECRETARIAT

Agenda item 2 Further consideration of concrete proposals to improve the operational energy efficiency of existing ships, with a view to developing draft amendments to chapter 4 of MARPOL Annex VI and associated guidelines, as appropriate

In the discussion related to the consideration and development of the proposals, the following comments, inter alia, were made:

1 We do agree with the submissions proposing a strengthening of the scope of SEEMP as a building block to consider possible measures consistent with the Initial Strategy. We also agree that an audit scheme is going to be needed to assure an adequate compliance mechanism.

2 Requirements should be goal-based, meaning that they should directly target fossil fuel GHG emissions. Introducing proxies for this target may be possible and even desirable, but it should be ensured that requirements do not exclude reaching the goals by other means.

3 A rating mechanism is not sufficient. There must be a "hard" objective, and a fixed metric. Giving choice of indicators introduces a risk of missing the effect, particularly if the choice can be revised.

4 We find it important to separate clearly physical changes to the ship, which may be certified by an EEDI-similar system, and purely operational changes of behaviour, that cannot be verified directly by examining the vessel. EEXI should form the technical basis (together with EEDI for new ships) while the SEEMP should come "on top" to ensure that technically efficient ships are also operated in an efficient way.

5 "Speed" proposals will discourage innovation, and do not ensure GHG reductions. They do not allow for low carbon fuels or energy efficiencies.

6 With reference to the initial Strategy and the tasks that IMO has to deliver on the Paris Climate Agreement, GHG emission of shipping need to peak as soon as possible and measures should be in place to reduce GHG emission before 2023. We think that the goal-based measures have a great potential, however for the short term might be complemented by other operational measures. Room for innovation and the use of alternative fuels for shipping in the mid- and long-term is essential and that must be one of the elements taking in consideration by preparing for the short-term measures.

7 Any short-term measure to be adopted should be effective and equitable for old and new vessels, taking into account their current energy efficiency. Also, a goal-based or a prescriptive approach may be effective depending on the sector. In the dry bulk tramp sector, achieving meaningful objectives would require the effective engagement of charterers and relate to reference baselines. Therefore, a sectoral approach is needed, respecting each shipping sector's characteristics.

8 Operational carbon intensity is the consequence of a combination of both technical efficiency and how the ship is operated. Phrased another way, operational encompasses

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technical, but technical is only weakly related to operational. Document ISWG-GHG 6/2/3 (Japan and Norway) makes this point very elegantly in figure 8, a plot using EU MRV to compare technical and operational efficiency showing that there are many ships in operation today with good technical efficiency and poor AER, as well as ships with good AER and poor technical efficiency. Furthermore, increases in technical efficiency can be counteracted by the incentive they create for increased operating speed (rebound effect). So, considering equivalence sets a very difficult, or even impossible, challenge. From this, then to fulfil a given operational objective you can: 1) have just an operational approach; 2) have a combination of a technical and an operational approach. Conversely the same operational carbon intensity objective cannot be guaranteed by: 1) just technical approaches; 2) or an either/or approach e.g. where you can choose either to use a technical approach or an operational approach. Considering the proposals, some are unambiguously operational approaches – such as the Chinese and Danish proposals. Whereas considering the EEXI proposal the goal can be achieved by limiting engine power, which could be considered technical or operational, or by technical efficiency – clearly a technical efficiency approach. The EEXI proposal can be considered as an "either/or" approach and therefore risky for use on its own to achieve operational/emissions objectives.

9 We have an important opportunity here to facilitate the industry's efforts to operate more cleanly and efficiently. There will be no one-size-fits-all approach that meets the strategy's goals. We see an assumption by some that the only way to implement the goals of the initial strategy is to impose short-term, mandatory operational targets that ships must start meeting immediately. We should be more open-minded.

10 Discussion about the architecture of measures should take into account the timelines contained in the Initial Strategy, which is consistent with the three-step approach. Absent this data, measures that incentivize reductions are more appropriate in the short term.

11 Regarding "goal-based measures", there are different understandings of the meaning of "goal-based". Flexibility could mean flexibility in setting a goal or it could mean flexibility in methods to achieve it. Efforts to set targets using EEDI reference lines are problematic, as EEDI reference lines do not represent typical performance. Reference lines should be based on real and current data, and proponents of measures should describe how their measures do that. We should not entertain measures that could revoke a ship's operating certificate based on a target that is centred on an assumed operational profile that is not driven by real data.

12 We need to be pragmatic in our work and not be emotionally attached to the notion of the climate crisis, which is according to the European Climate Declaration signed by 500 climate scientists and submitted to the UN Climate Action Summit stating that there is no climate urgency. Therefore, we should not dwell on Climate Change debate here, as there is allocated time and venue for climate talks at COP 25 next month.

13 We need to be in alignment and consistent with the agreed Roadmap and three-step approach, a robust data is essential in developing a robust measure that is required to reduce GHG emissions. Therefore, we should refrain from rushing things and making decisions that will have negative implications for the shipping sector.

14 To meet the Vision we need to be moving away from fossil fuels and substantially so by 2050. Evidence (e.g. document ISWG-GHG 3/3 (IMarEST)) tells us that there is a lot of effort required to complete this move to meet the 2050 target. Even though it may feel distant today, this document suggests that significant growth of newbuild zero emission ships will be needed from 2030. We think that even for short-term measures, if incentive can be given to operation on low and zero carbon fuels as soon as possible, this can only be helpful.

15 We note that the document ISWG-GHG 6/2/3 shows that improvements in technical efficiency are correlated with improvements in operational efficiency, based on analysis of EU MRV data. We also note that China's submission, which is based on extensive analysis of real operational data, shows a high degree of fluctuation that needs to be taken into account when designing a measure based on operational carbon intensity indicators.

16 On a procedural note, we understand that the work in parallel the Chair proposed refers to a conceptual aspect and that we will continue to work in the way we have done until now in a single meeting, namely without splitting in different groups.

17 Goal-based measures are the only ones that could address the diversity of circumstances of countries and vessels and that provide the flexibility we need to avoid distortions that could harm trade and development. In this sense, we would like to suggest as a cut-off criterion that only proposals that rest on goal-based approaches are considered – either operational or technical – given that no consensus was able to be achieved on prescriptive measures.

18 Keeping the goal-based proposals in our menu does not entail immediate approval on the specificities that still lack agreement. On the contrary, we are of the view that although there is appetite to approve a general framework for the types of measures to be adopted, we are far from being in a position to agree on quantitative targets, mainly due to the lack of data to support us in this process. We understand that 2020 will be a more promising year for this: not only will we have data from the data collection system, but also we will count on the Fourth IMO GHG Study. We have strongly opposed any decision be taken without the necessary data and data analysis to support decision-makers. We therefore support that specific target decisions are taken only after we have the information we need. There is nothing in the Initial Strategy that mandates that we have the deadline of MEPC 75.

19 We are interested in those approaches that promote technology development and innovation. We can accept advancing work on two tracks – one exploring a possible operational approach and one exploring a possible technical approach. But we need to clarify the details and expectations of that work. We have five key concerns:

- .1 categorization/shortlisting: either an operational or technical approach to a goal-based measure is composed of key elements – a target or standard (and whether this is mandatory or voluntary), methodology and calculations, and compliance. We are far from coalescing around common understanding on these elements for any approach. We want to clarify that we are not identifying only one technical and only one operational approach to work on;
- .2 data-informed targets: we share the concerns of many here about data-informed measures, and the importance that the measures and their impact assessments be informed by data;
- .3 mandatory target characterization: we note the Chair characterized an operational goal-based approach as having a mandatory target, but we have not heard agreement on this. Proposal made in document ISWG-GHG 6/2/9 was characterized as complementary but does not have a mandatory standard. We would like to remove the word "mandatory" as we feel that could prejudice the direction of this approach;
- .4 timelines: we need to align with what was agreed in the strategy. The strategy notes that short-term measures are those that could be "finalized and agreed" between 2018-2023. We accept this timeline agreed by MEPC. We

have not agreed to an earlier timeline, particularly one singling out MEPC 75. Calling for an amendment to be considered in MEPC 75 goes beyond the Initial Strategy's timelines. We would like to request the report not say this group is aiming for agreement or adoption by MEPC 75. We appreciate calls for ambition, but we are far from agreement in the room on dates and timelines – just as we are far from agreement on the details of approaches, as the Chair has acknowledged and many delegations have highlighted. If anything, the report should reiterate the language in the Initial Strategy aiming for early action, in paragraph 4.2; and

- .5 appointing coordinators/organization of work: we had consideration in this room earlier this week about the concept of focal points advancing proposals. This room did not support that approach, in order to keep with our normal process of allowing all interested stakeholders to put ideas forward. We want to make sure that we don't effectively take other approaches off the table. We hear, for example, China asking to be allowed to be a co-focal point w/Denmark. This again raises our concern that this approach is preferencing ideas that come from the Member States that are appointed "focal points" or "coordinators".

20 The work we are taking forward does not prejudice that a measure will be adopted. We understand that we are not prejudging whether one of these will be adopted, there are many important details on the actual architecture of the measures that must be on the table before Member States can consider adoption. We can focus work without prejudging measures. We request that language be included in the primary report, perhaps as a footnote, that to the effect that this work is not prejudging that they will be adopted.

21 We aligned ourselves with the views and concerns expressed about the avoidance of market distortion. We should refrain from quantitative targets until we have robust data upon the completion of the three-step approach.

22 Goal-based measures should be taken forward comprising two approaches – operational and technical. The diversity of the world shipping fleet means that we need to take a goal-based approach. We also see synergies and similarities between documents ISWG-GHG 6/2/6, ISWG-GHG 6/2/3, ISWG-GHG 6/2/11 and ISWG-GHG 6/2/9.

23 In view of the urgent need to peak GHG emissions and reduce before 2023, we are dedicated to finalising and agreeing on short-term measures at MEPC 75, and to make sure all necessary guidelines are in place to enable at least 40 % carbon intensity reduction in 2030. It is going to take profound changes to how ships are built and operated, in order to reach the levels of ambition in the Initial Strategy. Goal-based measures are the best option, as they provide flexibility to shipowners to choose the emission reduction solutions that are most appropriate for their circumstances.

24 The proposal made in document ISWG-GHG 6/2/11 (Denmark et al.) is clearly linked to reaching the 2030 level of ambition. It allows the most flexible mechanisms for compliance, as it encompasses all possible technical and operational solutions as well as fossil free fuels. This measure should be prioritized for further development. EEXI, as presented in document ISWG-GHG 6/2/3 (Japan and Norway), is promising and should also be shortlisted for further work.

25 The goal in a goal-based measure should be deducted from the 2030 level of ambition in the initial strategy, and the ambition should be kept under review to enable peaking of emissions and absolute reductions. At present, only the goal-based approach proposed by

ISWG-GHG 6/2/11 has this review component. Measures should provide a breadth of emission reduction solutions to choose from, to promote a proactive approach and continuous improvements. EEXI only allows technical solutions, so it fails to unlock some of the cost-effective operational and structural solutions e.g. route optimization. Therefore, there would be a need to agree on complementary operational measures to ensure that technical improvements lead to quantifiable operational efficiency gains.

26 In relation to the goal-based approach proposed by ISWG-GHG 6/2/11, we see a risk that different ship types and/or sizes will be affected in varying degrees by the emission reduction requirements in the current proposal. We are therefore open to looking at solutions e.g. alternative reference lines or differentiation of the goal.

27 There is a need to apply an ice class correction factor when calculating the carbon intensity of ships. This is similar to what has been done in EEDI regulation, for the calculation of attained EEDI values for ships having an ice class. EEXI accounts for this, but it would need to be added in the goal-based approach proposed in document ISWG-GHG 6/2/11.

28 The ideas and important work by China on indicators and a rating mechanism are ideas that we welcome to further work on.

29 We do not share the concern raised on the difficulty of the Group being able to further the work on refining a mandatory operational goal-based SEEMP approach.

30 We welcome the comments in relation to the mandatory operational goal-based SEEMP measure to take account of data from the Data Collection System and the Fourth IMO GHG Study.

31 We have heard many good and constructive comments and suggestions by industry representatives and we expect to be able to reflect these in our work ahead.

32 A goal-based approach allows the achievement of the goal by utilizing various methods or their combination. EEXI is a goal-based proposal making use of a technical approach, since it allows more than one option for compliance but, for the majority of ships, the main compliance method will be power reduction. It is a stringent measure, so we must ensure that older ships, or whole parts of the fleet, do not become obsolete overnight. So, it is important to know in detail the effect of the measure on the existing fleet, utilizing all available data, including EU MRV data, to calculate EEXI's for each ship, to obtain a clear idea of the implications of the measure.

33 Operational approaches have a major weakness: they need an operational efficiency indicator. And unfortunately, no operational indicator is reliable or really representative of a ship's actual operating efficiency, even if you take long periods of operation into account, rolling averages, etc., China did a commendable effort to provide a "better" indicator in document ISWG-GHG 6/2/10. Whereas, for example, EEOI penalizes ballast voyages, China proposes to exclude them and utilize only laden voyages. But ballast voyages are an integral part of shipping trade. Without them you can't have laden voyages. So down to individual ship level, general operational indicators are problematic for regulatory purposes, no matter which one you use. That is why many companies use their own indicators or KPI's to evaluate the efficiency of their ships, depending on their trading area, ship characteristics and many other factors. Any regulatory operational approach cannot ignore this fact and it will have to utilize these individual ship KPIs. Thus, we would very much prefer instead a mandatory EEXI, perhaps augmented with several good SEEMP strengthening suggestions, such as those proposed by Greece in document ISWG-GHG 6/2/4 and ICS in document ISWG-GHG 5/4/9.

34 EEXI proposed by Japan and Norway (ISWG-GHG 6/2/3) are the most concrete proposals which are ready to be approved, while other proposals on operational measures are still in conceptual level. The Group should note that the target of 40% reduction of carbon intensity by 2030 under the Initial Strategy is an average across international shipping, not operational efficiency of individual ships.

35 There is concern over proposal made in document ISWG-GHG 6/2/11 (Denmark et al.) that operational efficiency cannot be pre-certified. Besides, there are relevant data showing that, although operational efficiency fluctuates due to uncontrollable external factors, technical efficiency leads to improvement in operational efficiency in average, as shown by proposal by Japan and Norway (ISWG-GHG 6/2/3). These data should be carefully taken into account.

36 EEXI can address the challenges with Ice-class ships in complying with the regulation, as it incorporates Ice-class correction factors in the same manner as EEDI. Transparency in implementation of EEXI may be addressed by expanding the scope of the mandatory EEDI reporting scheme to EEXI. EEXI may be complemented with other operational measures such as the mandatory rating mechanism proposed by China (ISWG-GHG 6/2/9) and the flexible compliance mechanism proposed by Norway (ISWG-GHG 6/7).

In the discussion related to the assessment of potential impacts on States, the following comments, inter alia, were made:

- .1 We find very encouraging that the initial impact assessments associated with the measures have been submitted. There is a lot to work on regarding on this issue, but the very fact that we have some of those assessments here is a good sign in particular because there is a general recognition of the relevance of the impact on trade. The examples of the impact on trade of developing countries also underlines the relevance of the trade impact in developing countries.
- .2 We have repeatedly raised both in our interventions as well as bilaterally with numerous delegations our concerns about potentially significant – and thus far unknown – negative economic impacts of the actions under consideration. When we regulate economic activity, we must do so on the basis of clear, solid data and analysis. The measures before us lack clear methodology for setting targets or measuring performance, precisely because the three-step approach, including analysis of the data collection system, has not been completed. As such, any compliance mechanism that penalizes ships is inappropriate at this stage.
- .3 It is impossible to fully evaluate the impacts on states of a measure that lacks supporting data. Most of these measures are so early stage – including with targets in brackets – that no economic assessment done would have any value. We question how this group can advance regulations without understanding their economic impacts. We cannot sanction making a decision with potentially significant negative impacts on international trade without a solid basis for setting the standard.
- .4 Impacts on State are sought to be assessed before adopting any measure to reduce GHG emissions. Moreover, measures intended to tackle climate change must be achievable, implementable and evidence-based, and does not negatively impact developing countries, in particular, SIDS and LDCs.

- .5 We should not deviate from the agreed IMO GHG Strategy, the impact on States include impacts on developing countries, especially SIDs and LDCs and not only SIDs and LDCs. Such grouping or de-grouping should be avoided and would not serve the purpose of the Strategy on the reduction of GHG emissions from ships.
- .6 Paragraph 18 of MEPC.1/Circ.885 gives clear direction on how to proceed with impact assessments, which should take into account cost-effectiveness analysis tools, updated Marginal Abatement Cost curves and economic trade models. Paragraph 8.5 of the same document states that measures to be proposed should make an initial assessment on how they could have disproportionate negative impacts and, if so, how this could be addressed. This was agreed to by Parties in this room in the last MEPC. However, most of the proposals presented for this meeting – if not all of them – did not fulfil these requirements. We cannot be forced to rush to a decision now, at this point, without the necessary information on what impacts these measures could cause and how to assess these consequences, knowing that without proper answers to these questions we could be widening the gap between developed and developing countries.
- .7 Regrettably, there is a common theme among the proposals, when it comes to consideration of impacts on islands states, that are a fundamental requirement of the Initial Strategy. That impacts, disproportionate or not, are simply not recognised, or if they are then dismissed as negligible or an irrelevance. This does little credit to the submitters and is unacceptable. We firmly support further reductions of shipping's emissions. We do so in both the spirits and intent of all the elements of the Initial Strategy and we expect our colleagues from other Member States to do no less, not the least in a thorough and realistic assessment of potential impacts on remote SIDS, when developing a measure for consideration, and if disproportionate as those before us at this session clearly are desist from offensive suggestions that we adjust our shipping needs accordingly.
- .8 Any measure that has not been submitted in full to this Working Group remains in step one of paragraph 5 of MEPC.1/Circ.885. We mean that if any of the measures submitted to this meeting are refined and changed in any way, those measures remain in step 1. In addition, there is a possible need to distinguish between measures as such and approaches or building blocks to design measures. The later might not need to be previously assessed. It is going to be up to each delegation to discern whether they are dealing with a measure or an approach.
- .9 We favour in general the proposal to request the assistance through the Secretariat of other international organisations to improve the assessments. Nevertheless, in no way those assessments would have any priority over the conclusions of the assessment of a potentially affected State.
- .10 We hope to also have proper impact assessments on the goal-based measures that have been proposed. We support that these assessments be made in accordance with methodologies already agreed on. We expect that impact assessments to consider impacts on all states, but in particular developing countries, as indicated in paragraph 1 of MEPC.1/Circ.885.

- .11 We need to emphasize on the alignment and consistency on the agreed language set out in the Strategy in relation to impact on States which include developing countries especially SIDS and LDCs; indeed, it is a fundamental part of the Strategy. Such impact assessment has to be conducted in a proper and comprehensive manner.
- .12 We fully respect the procedure that has been set out in the previous meeting and look forward to deeper analysis of impact on States in future submissions, particularly on SIDS and LDCs, as required. We also see merit in having the secretariat examine if there are opportunities to use expertise from other UN agencies on the issue of impact on States as we note this will require specialised expertise and data.
- .13 As low-lying delta country we are very concerned with impact on States by the effects of climate change. We welcome your proposal to advance the work on the workstreams that were identified and would like to contribute to this work.
- .14 Comments from developing countries on especially needs of SIDS/LDC's and regarding impact assessment have been duly noted, and we agree it is important to work as hard on assessing impacts on States as we are going to work on finalising a short-term measure.

Agenda item 4 Consideration of a draft MEPC resolution urging Member States to develop and update a voluntary National Action Plan (NAP) with a view to contributing to reducing GHG emissions from international shipping, and develop associated guidelines, as appropriate

In the discussion under this agenda item, the following comments, inter alia, were made:

1 We would like to welcome the proposal made in document ISWG-GHG 6/4 (China). We are already putting in place measures at the national level to make the domestic and regional shipping industry greener through the Pacific Blue Shipping Partnership. We were also one of the few countries to include shipping in our second and more ambitious Nationally Determined Contribution and Long-Term Climate Strategy under UNFCCC. However, we would like to stress that this is a complementary measure, which should not take too much time and energy from this week's discussion, as well as IMO's resources.

2 IMO's remit is international shipping. As such, National Action Plans should at most be a voluntary tool to allow Member States to communicate their national efforts and share best practices that could support achievement of the levels of ambition in the Initial Strategy. They should not require the diversion of IMO resources. Member states who are interested in submitting a National Action Plan should do so with this in mind. Their contents are not prescribed.

3 We strongly oppose the proposed financial assistance mechanism, which we view as an attempt to introduce unprecedented differentiation into IMO by development status. The creation of an "expert team" at IMO headquarters would require IMO secretariat resources. In addition, IMO should not be tasked with curating and rating best practices, which would also require significant IMO secretariat resources.

4 At ISWG-GHG 4, ITF addressed the importance of considering impact on human element in the process of adopting measures. In line with that, we would like to draw the attention of the Group that effective implementing processes encompassing human element

must be addressed in national action plans, such as who are going to do what, who are going to do how, who are going to authorise when, where, whom and what.

Agenda item 5 Further consideration of concrete proposals to encourage the uptake of alternative low-carbon and zero-carbon fuels, including the development of life cycle GHG/carbon intensity guidelines for all relevant types of fuels and incentive schemes, as appropriate

In the discussion under this agenda item, the following comments, inter alia, were made:

1 Regarding the proposals made by documents ISWG-GHG 6/5 (Norway) and ISWG-GHG 6/5/2 (United Kingdom), we believe that a "tank-to-wake" rather than "well-to-wake" approach seems to postpone the consideration of life cycle emissions. It should be taken into account as soon as it is possible and the data is available.

2 New alternative fuels (e.g. synthetic fuels) can be an issue when calculating EEDI. It is necessary to have the right measure for climate-neutral fuels and an appropriate energy efficiency indicator that can take into consideration the sustainable fuels in their entire life cycle.

3 Regarding the proposal made by document ISWG-GHG 6/5/1 (Republic of Korea), we can support the proposed work plan starting with the life cycle pathway modelling and development of a database.

4 It becomes obvious that the major challenge for shipping decarbonisation is around energy/fuel, and the major challenge for energy/fuel is how do we produce and use shipping's future fuels safely, economically, and avoiding unintended consequences (such as other pollution/risks, an increase in land-side GHG emissions).

5 It is essential that we move to only framing both operational and upstream on GHG and not carbon/CO₂. The third level of ambition of the Initial Strategy is about absolute GHG reduction, and as the *Third IMO GHG Study 2014* describes, future scenarios dependent on certain fuels risk a significant increase in non-CO₂ GHG.

6 It is important that any inventory/guidelines distinguishes between emissions that occur within commonly defined boundaries. In that respect, the suggestion by document ISWG-GHG 6/5 to look to IPCC for those boundaries is useful. However, it is essential that any emissions inventory and guidelines, and wherever possible future policy for shipping, include accountancy and consideration of both operational and production/upstream emissions. The logic for this is that IPCC is just an accountancy framework, whereas the IMO Initial Strategy is more than an accountancy framework – it is a commitment to help achieve, among other things the Paris temp goals. We therefore think we cannot pretend that increased production/upstream emissions might not be an important (if unintended) consequence from IMO's attempt to fulfil the IMO Strategy objectives and something outside of our responsibility or influence. We note that for some fuels (made from renewable fuels), these production/upstream emissions guidelines may be very simple. For others (for example bioenergy derived fuels), they may be very complicated. Maybe the further work could try and prioritise the simpler options to produce their guidance sooner, whilst allowing time for a more developed debate on more complicated options.

7 As pointed out in previous meetings, the wider energy system/landscape, and particularly energy production, is rapidly changing as all sectors decarbonise. Any guidelines should make full acknowledgment of this changing landscape and not frame only on today's energy system and production mix.

8 We highlight the importance of considering all GHG emissions by means of a life cycle assessment to ensure consistent and comparable evaluation of all fuels. Document ISWG-GHG 5/4/10 (SGMF) included up-to-date results of an independently reviewed study which determined the well-to-wake and tank-to-wake GHG emissions from LNG as a marine fuel, the study fully accounted for current global production of LNG, supply chain details and different engine and propulsion system options. Significant effort was put into checking and validating assumptions and most importantly measured data has been used wherever possible. We fully stand behind the study and its conclusions and strongly refute the claim made in document ISWG-GHG 6/5/3 (CSC) that LNG has little or no carbon savings compared to HFO/MGO.

9 Once in the atmosphere, carbon dioxide can continue to affect climate for thousands of years, therefore it is critical that steps are taken now to reduce GHG emissions and fossil LNG can make a material CO₂ reduction contribution when replacing fuel oil. The industry is working hard to further reduce methane emissions both in the supply chain and from engines together with supporting the development of methane catalysts. Bio-LNG and synthetic LNG offer additional and significant reductions in GHG emissions on top of those already stated. Other low carbon fuel solutions, especially suitable for the deep-sea segments of shipping that account for the majority of the world fleet fuel consumption are in the early stages of development. Safe, sustainable and viable solutions amongst these fuels will take years if not decades to become reality. We therefore really cannot see a point in not encouraging the use of LNG today as it offers both a GHG emission reduction together with significant local pollutant reduction including black carbon.

10 We see no benefit for this meeting to argue detailed points on how to conduct a well-to-wake analysis; however, document ISWG-GHG 6/5/2 (United Kingdom) has identified the urgent need to agree guidelines on how to determine GHG emissions which should include defining the baseline for representative liquid fossil fuels in the market. We therefore further support the suggestion to establish a workstream to develop carbon intensity guidelines at ISWG-GHG 7 and look forward to contributing with industry knowledge and experience to this effort.

11 We support the continued consideration of ways that IMO can encourage the uptake of alternative fuels such as LNG. These types of mid- to long-term measures have the greatest potential for reductions in support of the goals of the initial strategy. We suggest that the Group should invite additional submissions to provide a basis of ideas for future work, including how to facilitate uptake, but also including addressing questions about methane slip and establishing carbon intensity guidelines. Work on carbon intensity guidelines should be consistent with existing science including IPCC guidelines, and not attempt to double-count land-based emissions.

12 Undertaking work on carbon intensity is significant, complex, and time-consuming, and it is not in this body's interest or competency to re-create work on land-based emissions. Work of this body should focus on emissions from tank-to-wake, not well-to-wake.

13 LNG is an important part of the conversation and the solution. If we are serious about reduction now, then we must be serious about LNG uptake and bunkering. Some of the most significant opportunities for reductions (both of carbon and of sulphur, in accordance with the 2020 mandate) come from clean-burning LNG.

14 If there is a workstream to be established on this topic, it should be on long-term action generally – and not limited to carbon intensity/life cycle assessments.

15 We support the development of life cycle carbon intensity guidelines for all relevant types of fuels to have a better understanding of and encourage the uptake of alternative low- and zero-carbon fuels. The guidelines will facilitate IMO and the industry in identifying the appropriate fuels for investment and further development that will lead to actual GHG reduction globally and not shift the reduction burden to other sectors. The guidelines will also assist IMO in developing appropriate carbon factors for the various alternative fuels to be used to meet IMO requirements such as EEDI and the Data Collection System (DCS).

16 We agree that IPCC Guidelines are useful from a carbon emissions accounting point of view so as to ensure global conformity to carbon emissions accounting not just for shipping, but for all sectors. At the same time, we recognise that IMO guidelines should nevertheless address the issue of well-to-wake emissions in some form so as to ease concerns over the possible increase in overall emissions due to a transfer of emissions from shipping to other sectors. We are thus supportive of Norway's and UK's proposal to establish a separate workstream for the development of life cycle carbon intensity guidelines.

Agenda item 6 Consideration of the development of further actions on capacity-building, technical cooperation, research and development, including support for assessment of impacts and support for implementation of measures

In the discussion under this agenda item, the following comment, inter alia, was made:

Tonga's statement reflects the discussions that some Pacific SIDS have been having over these days. We would like to stress the importance of balancing the need to adequately assess and address potential impacts on SIDS and LDCs, while ensuring that we agree on sound short-term measures that are in line with the Initial Strategy and the Paris Agreement, and that makes it possible to peak emissions as soon as possible. Having a pragmatic approach would be an effective way to move forward.

Agenda item 7 Consideration of other proposals for candidate measures

In the discussion under this agenda item, the following comments, inter alia, were made:

1 This proposal for a flexible compliance mechanism is interesting and merits further consideration. We need to have clarity on at what point does a shipowner prove it has done everything possible and invoke alternative compliance. We would need the threshold to be very high, otherwise this proposal risks undermining the effectiveness of measures we will agree upon.

2 The proposal around a GHG and R&D fund is particularly interesting for countries like Pacific SIDS and LDCs, which would need adequate resources to innovate and comply with the level of ambition of the Initial Strategy. However, we must ensure that this does not operate as an off-setting mechanism to avoid emissions reduction, thus, any fine should in no way be counted as a GHG reduction. Fines must also be sufficiently high to push shipowners and operators to reduce emissions.

3 The development of a flexible compliance mechanism assumes the development of compliance mechanisms that are punitive. That is an inappropriate assumption in a scenario where the Group is considering setting mandatory standards for ships prior to utilizing DCS data to establish focused, meaningful standards. We oppose the application of additional fees to vessels for this purpose.

Agenda item 8 Any other business

In the discussion under this agenda item, the following comment, inter alia, was made:

Some Member States expressed concern that the trial approach to the Working Group's report capturing differing views in annexes may give undue preference to ideas captured in the main report. In addition, as several Member States identified, capturing anonymized views adds the possibility of mischaracterization of another Member's view. As such, the Chair's assertion at the beginning of the week (namely that this approach is a trial approach to reports, and that some of key points of disagreement are not found in the primary report) should be referenced up front in the main report.
