

INTERSESSIONAL MEETING OF THE  
WORKING GROUP ON REDUCTION OF  
GHG EMISSIONS FROM SHIPS  
6th session  
Agenda item 4

ISWG-GHG 6/4  
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**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**

**Proposal on a draft MEPC resolution on encouragement of Member States to submit  
National Action Plans**

**Submitted by China, Saudi Arabia, Singapore and IAPH**

**SUMMARY**

*Executive summary:* MEPC 74 instructed ISWG-GHG 6 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. This document proposes a draft MEPC resolution on encouragement of Member States to submit National Action Plans.

*Strategic direction, if applicable:* 3

*Output:* 3.2

*Action to be taken:* Paragraph 13

*Related documents:* MEPC 71/7; ISWG-GHG 2/2/6; ISWG-GHG 4/2/7; ISWG-GHG 5/4/14; MEPC 74/18 and resolution MEPC.323(74)

**Background**

1 The *Initial IMO Strategy on reduction of GHG emissions from ships* (the Initial Strategy) sets out clear vision and levels of ambition, and lists candidate short-term measures that could be finalized and agreed by the Committee between 2018 and 2023. MEPC 73 further approved a programme of follow-up actions up to 2023, with a view to meeting the timelines identified in the Initial Strategy. According to this programme, MEPC 73 invited concrete proposals on candidate short-term measures for consideration.

2 Among the candidate short-term measures, development and implementation of a National Action Plan (NAP) is recognized as a promising action to achieve early emissions reduction from international shipping and to share best practices. MEPC 74 instructed ISWG-GHG 6 to consider a draft MEPC resolution urging Member States to develop and update a voluntary NAP with a view to contributing to reducing GHG emissions from international shipping. This document proposes in annex 1 a resolution for consideration by the Working Group.

### **Purpose of an IMO Resolution**

3 This resolution aims to encourage and initiate early and effective actions with a view to providing important inputs to the Initial Strategy, and ultimately aims to support IMO in compiling the global progress towards meeting the goals set out in the Strategy. This resolution provides a voluntary tool, National Action Plan, that Member States are invited to submit to IMO, outlining their respective policies and actions in addressing GHG emission from ships.

4 By doing so, a State can communicate, both at the national and international levels, its efforts to address GHG emissions from ships to the world. Also, through the development of an action plan, a State could identify barriers to the implementation of the Initial Strategy and any supportive measures, capacity-building, technical cooperation and research and development required.

5 Meanwhile, an action plan can help IMO to identify and compile information in relation to the achievement of the global goals contributed by national efforts, to facilitate the dissemination of various best practices, and to identify and respond to States' needs for technical and financial assistance, with a view to responding appropriately through the development of a process and mechanism for the provision of assistance to States.

### **Key principles**

#### ***NAP is voluntary in nature***

6 A NAP is a voluntary tool that Member States are invited to develop to communicate their national efforts in supporting achievement of the levels of ambition stated in the Initial Strategy. This means that a NAP is complementary to any measures eventually adopted by IMO.

7 Many IMO Member States can be regarded as countries already having NAPs in place. For instance, countries that have announced green shipping strategies: Norway has its green shipping strategy under development, in which actions like development and uptakes of green technologies and fuels were included; and the United Kingdom, which has recently finalized a Clean Maritime Plan. Both strategies have shown States' route maps for the transition to a future of green shipping.

#### ***The contents of a NAP are flexible***

8 Activities initiated among Member States may include but are not limited to: (a) improving domestic institutional and legislative arrangements for the effective implementation of existing IMO instruments, (b) improving the energy efficiency of ships, (c) facilitating the development of infrastructure for green shipping, (d) accelerating investments and R&D, (e) increasing understanding of the impacts on States and needs for assistance, (f) fostering capacity-building, awareness-raising and regional cooperation and (g) accelerating port emission reduction activities, in line with 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*, where applicable or relevant.

9 However, due to different national conditions and circumstances, actions that make sense in one country may not do so in another one. Therefore, this resolution does not indicate any specific actions since these would differ from country to country. It is up to individual States to decide upon any arrangements (organizational, legal, procedural, etc.) that they may need to put in place in accordance with their national circumstances and their own priorities.

10 As a starting point, instead of providing specific guidelines, several samples extracted from Member States' policies have been listed in annex 2 to this document, with the goal of helping understand what could be contained in a NAP and accommodating the various levels of experience among States in the development of similar action plans. For the next step (at ISWG-GHG 7 for example), associated guidelines will be developed as required.

### ***The structure of a NAP is expected to be simple***

11 In order to avoid administrative burden, the NAP structure is expected to be simple, presented as a non-bulky text with a list of bullet points to straightforwardly indicate the actions that a State intends to take and their expected results. Of course, Member States can also provide a more comprehensive version to make their entire action plans publicly available.

### **Supporting mechanisms**

12 IMO can help in developing and implementing a National Action Plan in many ways, inter alia:

- .1 to provide associated guidelines, for reference only, and other capacity-building activities for the preparation of States' action plans;
- .2 to facilitate information sharing by adding a new module to IMO's Global Integrated Shipping Information System (GISIS) platform for Member States to voluntarily submit their NAPs and enable others to freely access them;
- .3 to sort and compile activities and information contained in Member States' action plans, for others' reference in preparation of action plans;
- .4 to disseminate mitigation efforts by IMO and its Member States to the outside world;
- .5 to establish a team for the action plan initiative, which includes experts at IMO headquarters who are available to assist States in developing their action plans;
- .6 to build partnerships among Member States through the GloMEEP project and the MTCC network, in order to encourage States that already submitted their action plans to help other States that have not prepared their action plans; and
- .7 to provide up-to-date descriptions of climate change financing mechanisms and possibilities of financing for the shipping sector (i.e. to present a list of climate funds at websites).

### **Action requested of the Working Group**

13 The Group is invited to consider the views and proposals provided above, and to take action as appropriate.

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## ANNEX 1

### DRAFT MEPC RESOLUTION ON ENCOURAGEMENT OF MEMBER STATES TO SUBMIT NATIONAL ACTION PLANS

#### 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 encourages 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 IMO conventions;

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

RECOGNIZING ALSO that IMO has, in 2015, launched the Global Maritime Energy Efficiency Partnership (GloMEEP) Project, with 10 developing countries as Lead Pilot Countries (LPCs) and that under this project, by offering several generic guide documents, IMO has successfully assisted LPCs to develop national strategies to address emissions from ships,

RECOGNIZING FURTHER the value of mobilizing resources, experience sharing and cooperation for all national stakeholders, particularly those not necessarily covered by IMO conventions,

HAVING AGREED the need to encourage Member States to submit National Action Plans to IMO,

1 URGES Member Governments to initiate early actions to facilitate the reduction of GHG emissions from ships without awaiting the entry into force of measures in IMO context. Those could include but are not limited to the provision of: (a) improving domestic institutional and legislative arrangements for the effective implementation of existing IMO instruments, (b) facilitating the development of infrastructure for green shipping, (c) improving the energy efficiency of ships, (d) accelerating investments and R&D, (e) increasing understanding of the impacts on States and needs for assistance, (f) fostering capacity-building, awareness-raising and regional cooperation and (g) accelerating port emission reduction activities, in line with 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*, where applicable or relevant;

2 INVITES Member Governments to voluntarily submit their National Action Plans to IMO, outlining respective policies and actions;

3 INVITES ALSO those Member Governments that choose to prepare or update their action plans to submit them to the IMO as soon as possible, and keep the action plans updated thereafter, if necessary, in order that IMO can continue to compile the information in relation to achieving the levels of ambition stated in the Initial Strategy;

4 ENCOURAGES Member Governments to elaborate those arrangements (organizational, legal, procedural, 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;

5 ENCOURAGES ALSO Member Governments, in particular, SIDS and LDCs, to identify barriers and needs for supportive measures, capacity-building and technical cooperation;

6 REQUESTS the IMO Secretariat to provide guidance and any further action which may be taken (e.g. through the GloMEEP and GMN projects) to assist Member Governments, and particularly developing countries, for the preparation and implementation of National Action Plans;

7 REQUESTS ALSO the IMO Secretariat to facilitate the dissemination of real actions and best practices and to add a new module to IMO's Global Integrated Shipping Information System (GISIS) platform for Member States to voluntarily submit their NAPs and enable others to freely access them.

8 REQUESTS Member Governments to bring this resolution to the attention of all stakeholders on a national scale, including administrations, ports, ship designers, engine manufacturers, fuel providers, seafarers and other interested groups.

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## ANNEX 2

### EXAMPLES OF MEASURES SELECTED IN MEMBERS' ACTION PLANS

This annex contains extracts from some States or regions that have specific policies in place to address ship emissions, sorted by different expected outputs. Member States are free to choose any kinds of activities, in light of their own priorities or respective national circumstances and capabilities.

#### **1 Improving domestic institutional and legislative arrangements for the effective implementation of existing IMO instruments**

*Example: under the GloMEEP Project, countries strengthen their national capabilities to become Party to and effectively implement MARPOL Annex VI*

The GloMEEP Project aims to address common barriers in fulfillment of MARPOL Annex VI, via supporting 10 LPCs (Argentina, China, Georgia, India, Jamaica, Malaysia, Morocco, Panama, Philippines and South Africa), through legal, policy and institutional reforms, awareness raising and capacity-building activities and establishment of public-private partnerships. Some important achievements of GloMEEP are highlighted as follows:

- .1 all LPCs have established national task force including representatives from government agencies and main maritime stakeholders;
- .2 all LPCs are developing national energy efficiency strategies specifically for maritime industry;
- .3 LPCs that have not yet incorporated MARPOL Annex VI into national law are in the process of developing national legislations;
- .4 series of training packages which aims at awareness-raising and knowledge enhancement on regulation 22A of MARPOL Annex VI have been provided for mainly maritime administration staff; and
- .5 several toolkits composed of guides on ship and port emissions are developed.

#### **2 Improving the energy efficiency of ships**

*Example 1: Panama provides special discount in the registration fee for high-efficient ships*

As of 1 January 2016, the Panama Registry has been providing a special three-year discount in the registration fee for registered ships or ships yet to be registered in the National Merchant Marine, provided evidence is given of the implementation of corporate social responsibility programmes that focus on the reduction of air and sea pollution from shipping. The registration fee discount applies regardless of the tonnage or age of the ship and can be renewed.

*Example 2: China supports High-tech Ship Projects*

Ship types covered within the project include tankers, bulk carriers and containerships, with ship sizes ranging from 50,000 to 400,000 DWT. These high-tech ships were optimized through improvements in hydrodynamics, engine efficiency, thrust efficiency, aerodynamics, etc. To date, seven completed projects fulfil the request of phase 2 of EEDI requirement. For example, a VLCC with a pair of "hard airfoil sails" was successfully constructed, tested, delivered and has been in operation since 2018. The design and manufacture of hard airfoil sail system meets or equally meets the current phase of EEDI requirement.

### **3 Accelerating investments and R&D**

#### *Example 1: Norwegian project to build YARA Birkeland*

The Norwegian Government has a vision to be "the leading innovative maritime nation", and has channeled significant funds towards education and research and development of new technologies. As a result, many maritime innovation projects have been initiated and implemented, acting as the perfect breeding ground and test bed for new technologies. For example, in 2017, Norway launched the project to build **YARA Birkeland**, the world's first all-electric, zero emission, autonomous containership. By 2020, this new state-of-the-art ship will transport fertilizer products thereby removing up to 40,000 truck journeys annually in populated urban areas. **YARA Birkeland** will burn zero fossil fuels throughout its entire lifetime – its batteries will be charged with energy from clean Norwegian hydro power during loading and unloading with the effect of negating 700 tonnes of CO<sub>2</sub> emissions every year.

#### *Example 2: actions to support research and development for sustainable shipping*

The Maritime and Port Authority of Singapore (MPA) and the Singapore Maritime Institute set aside funds to support the establishment of the Centre of Excellence for Maritime Energy and Sustainable Development (MESD) at the Nanyang Technological University (NTU) in 2017. The MESD focuses on port and shipping applications in energy management, emissions management and sustainable maritime operations. The MESD has completed a study on potential alternative sources of energy for international shipping and partnered with Shell and DNV-GL on a Low-Cost LNG Retrofit Challenge.

In addition, the MPA and the SMI supported NTU in the setting up of the Maritime Energy Testbed (METB) to support the scaling up of research projects. The METB consists of a 1.5 MW marine engine and advanced equipment suitable for R&D projects relating to energy and emissions.

### **4 Increasing understanding of the impacts on States and needs for assistance**

#### *Example: GloMEEP Project identified barriers to implementation of IMO's energy efficiency requirements*

Through the GloMEEP Project, several general barriers to the implementation of IMO's energy efficiency requirements were identified, including: 1) Global nature of shipping and the large numbers of stakeholders / countries involved; 2) Heterogeneous nature of ships; 3) Split incentives between stakeholders; 4) Barriers to technological flows and technology transfer; and 5) General lack of capacity in developing countries.

Besides these general barriers, countries' assistance needs may vary dependent on their individual circumstances. For example, for non-contracting Member States, barriers to early accession may be significant and incorporation of MARPOL Annex VI into national law might be addressed as a matter of urgency. For LDCs and SIDS, certain measures might impact on their sustainable development; while for a country with large amounts of seafarers, needs for training on ships' energy efficiency may be identified, etc.

A National Action Plan will provide a platform for Member States to assess barriers to energy efficiency in shipping, analyze their impact on national development, and support identifying special assistance needs (financial, technological, training, etc.).



## **5 Fostering capacity-building, awareness-raising and regional cooperation**

### *Example 1: Singapore's early implementation of the IMO data collection system for fuel oil consumption of ships*

The Maritime and Port Authority of Singapore (MPA), together with other stakeholders, embarked on a voluntary experience-building phase (VEBP) of the IMO DCS for Singapore-registered ships for the calendar year 2018. The purpose was to identify any challenges and issues that could arise in advance and prior to the first mandatory data collection period that commenced in 2019. The lessons learnt from the VEBP provided learning points to stakeholders such as ship operators, Administrations and ROs and supported their preparations for the implementation of IMO DCS. These findings were submitted to MEPC 73 in the paper MEPC 73/6/1 on Sharing of lessons learnt from the voluntary experience-building phase of the fuel oil consumption data collection system.

### *Example 2: the Helsinki Convention on the protection of the marine environment of the Baltic Sea area*

The Helsinki Convention on the protection of the marine environment of the Baltic Sea area (contracting parties: Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden and EU) specifically addresses MARPOL Annex VI and cooperation between contracting parties within IMO, in particular in promoting the development of international rules and in the effective and harmonized implementation of rules adopted by IMO. HELCOM (Baltic Marine Environment Protection Commission – Helsinki Commission), the governing body of the Helsinki Convention, has also established a public and private cooperation platform to promote green technology and alternative fuels, which form a part of its approach to overall energy efficiency.

## **6 Accelerating port emission reduction activities**

### *Example 1: Canada's clean vessel incentive programme*

The Vancouver Fraser Port Authority operates its EcoAction Program for Ships, which was implemented in 2007 to provide discounted harbor dues for ships that have implemented emission reduction measures including clean technologies (such as scrubbers, shore power), clean fuels and third-party ratings or designations. The EcoAction Program offers discounts of up to 47% off harbor dues to ships through a four-tiered fee structure consisting of Gold, Silver, Bronze and Basic rates.

### *Example 2: providing incentives to greener vessels on the basis of the Environmental Ship Index (ESI)*

Fifty-five ports from 22 countries provide incentives to cleaner vessels on the basis of the ESI, which was implemented by IAPH since 2011. ESI identifies seagoing ships that perform better in reducing air emissions than required by the current emission standards of the International Maritime Organization. On a voluntary basis, shipowners register their vessels in the ESI database and their ESI score is calculated. The index is then used by ports and other incentive providers to reward cleaner ships (e.g. by offering discounts on their port dues on the basis of ESI scores) but can also be used by shippers and shipowners as their own promotional instrument. Currently, more than 7,000 ships are globally registered in the ESI database.

*Example 3: China encourages use of onshore power supply*

As of 2018, four departments of the Chinese Government (including the ministry of transport, energy, finance and national development and reform commission), together with main Grid Corporations of China, jointly issued a work plan to promote the use of shore power by ships. The work plan urges to improve the regulations for technical standards on using shore power by ships; to encourage governments at all levels to establish incentive policies and reduce costs; to actively cooperate with relevant departments to promote the construction or transformation of connecting systems, equipment and facilities for ships to use onshore power supply; to promote the use of onshore power supply for ships while at berth within the emission control areas, or operating within ports.

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