

MARINE ENVIRONMENT PROTECTION  
COMMITTEE  
60th session  
Agenda item 4

MEPC 60/4/55  
29 January 2010  
Original: ENGLISH

## PREVENTION OF AIR POLLUTION FROM SHIPS

### A rebate mechanism for a market-based instrument for international shipping

Submitted by the International Union for Conservation of Nature (IUCN)

#### SUMMARY

**Executive summary:** This document proposes a rebate mechanism for a market-based instrument for international shipping in order to deliver on the UNFCCC principle of common but differentiated responsibilities and respective capabilities. The rebate mechanism could ensure that developing countries are not disadvantaged by a yet to be decided market-based instrument but rather benefit from it

**Strategic direction:** 7.3

**High-level action:** 7.3.1

**Planned output:** 7.3.1.1 and 7.3.1.3

**Action to be taken:** Paragraph 38

**Related documents:** MEPC 58/4/39, MEPC 58/23, MEPC 59/4/5, MEPC 59/4/25, MEPC 59/24, MEPC 59/INF.10, MEPC 60/4/9, MEPC 60/4/10 and MEPC 60/4/28

#### Introduction

1 This document comments on document MEPC 60/4/9 (Secretariat) and is submitted in accordance with the provisions of paragraph 4.10.5 of the revised Guidelines on the organization and method of work of MSC and MEPC and their subsidiary bodies (MSC-MEPC.1/Circ.2), and the deadline relaxation for COP 15 related documents (MEPC 60/1/Add.1).

#### Background and Objective

2 The United Nations Climate Change Conference 2009 (COP 15/CMP 5) did not succeed in reconciling the IMO principles of providing global and uniform rules with the differentiated principles embodied in the UNFCCC and the Kyoto Protocol. As a result, the major obstacle to discussing and further developing the application of a market-based instrument (MBI) for international maritime transport still remains.

For reasons of economy, this document is printed in a limited number. Delegates are kindly asked to bring their copies to meetings and not to request additional copies.



3 However, COP 15/CMP 5 – in the context of climate change being one of the greatest challenges of our time – confirmed strong political will of country Parties to urgently combat climate change in accordance with the principle of common but differentiated responsibilities and respective capabilities (CBDR). This has also been expressed in the Copenhagen Accord of 18 December 2009 (see document MEPC 60/4/9, annex 1).

4 All relevant proposals submitted to the MEPC so far, including documents MEPC 59/4/5 (Denmark) and MEPC 59/4/25 (France, Germany and Norway), assume a uniform application of a yet to be agreed MBI to all ships in international trade, irrespective of the flag they fly. The MEPC discussions have shown that the disbursement of any raised revenue to developing countries, in ways proposed so far, is not generally perceived by these countries as fulfilling the UNFCCC principle of CBDR. Document MEPC 60/4/10 (Bahamas) argues that none of the MBIs proposed so far are in the best interest of developing countries.

5 Therefore, there is a need for a new approach to an MBI in international shipping; one that is politically acceptable to both developed and developing countries. This document proposes to innovatively reconcile the principle of CBDR with the application of an MBI to all ships irrespective of flag or ownership, by ensuring that each developing country would derive overall benefits from the scheme. Specifically, a differentiated rebate mechanism is proposed to fulfil the CBDR principle.

### **Outline of the submission**

6 The subsequent sections of this document provide details on the following:

- .1 scaled up climate funding and CBDR;
- .2 current MBI proposals versus CBDR;
- .3 calculating a country's usage of international shipping;
- .4 a rebate mechanism proposal to fulfil CBDR;
- .5 lack of practical alternative for a global and differentiated mechanism;
- .6 conditions to integrate the rebate mechanism with an MBI;
- .7 securing advantages to shipping and world trade; and
- .8 conclusions and proposal.

### **Scaled up climate funding and CBDR**

7 The Copenhagen Accord includes commitments of developed countries to provide scaled up, new and additional, predictable and adequate funding to developing countries to enable and support enhanced action on climate change mitigation, adaptation, technology development and transfer and capacity building. The mitigation element is to include substantial finance to reduce emissions from deforestation and forest degradation (REDD-plus). The funding will come from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance.

8 Although not explicitly stated, a maritime MBI may be one of the alternative or innovative sources of finance, while simultaneously contributing to emission reductions. However, to be compliant with the UNFCCC principles, the funding should come from developed countries.

### **Current MBI proposals versus CBDR**

9 As justified numerous times at MEPC, any MBI for international maritime transport should be global and apply to all ships irrespective of the flag they fly, *inter alia*, in order to avoid evasions and competitive distortions. Furthermore, at MEPC 59 (MEPC 59/24, paragraph 4.129) there was a general preference for the greater part of the revenues, generated by an MBI under the auspices of IMO, to be used for climate change purposes in developing countries.

10 Assuming a global application of an MBI, costs incurred by the shipping industry will be passed on to end-consumers, in both developed and developing countries. Effectively, some developing countries will therefore carry a share of the burden of an MBI, unless every developing country gains more than the total cost of the MBI to its end-consumers. In this context, arguably, none of the proposals so far truly incorporates the principle of CBDR, regardless of their revenue raising potential.

11 Consider an example where the majority of the MBI revenue raised is spent on purchasing emission credits from the Clean Development Mechanism (CDM) in developing countries, in order to offset maritime emissions. In this scenario, many developing countries would in fact carry a share of the MBI burden as they would receive less than their cost incurred. The reason is that an overwhelming majority of CDM projects are concentrated in just a few countries.<sup>1</sup> Many developing countries, especially smaller ones, would therefore be net contributors to the generated funds, rather than being their beneficiaries. This is at odds with equity, the CBDR principle as well as the UNFCCC obligations and commitments of developed countries to provide climate financing.

### **Calculating a country's usage of international shipping**

12 As often is argued, international shipping provides a service to international trade. Each country therefore could be seen as a user of that service, even land-locked countries. As in any shared service environment, the usage of a service by each user can be calculated.

13 A country's usage of international shipping is closely related to its imports. It can be estimated by a country's share of global seaborne imports. It is not related to the amount of fuel sold to ships, or the number of ships registered or owned in the country. The recent recession has demonstrated clearly this relationship to imports; lower demand for imports has caused a drop in shipping activity.

14 Data on share of global imports by value, country by country, is readily available.<sup>2</sup> This document proposes to use the global imports data to calculate a country's usage of international shipping, and therefore also estimate a country's share of costs of applying a global MBI.

---

<sup>1</sup> Approximately 90% of all CDM credits have been issued so far to projects in four countries: China, India, the Republic of Korea and Brazil, with circa 48% issued to projects in China. Source: UNEP Risoe, [www.cdmpipeline.org](http://www.cdmpipeline.org).

<sup>2</sup> For instance, from the International Monetary Fund (IMF).

The same data can also provide the share of international shipping emissions a country could account for in its national emission accounts.<sup>3</sup>

15 For instance, the United Kingdom imports approximately 5% of goods worldwide and therefore could account for 5% of international maritime emissions. For comparison, all African countries together import less than 3% of goods worldwide.

### **A rebate mechanism proposal to fulfil CBDR**

16 In order to comply with the principles of the UNFCCC, the application of the maritime MBI could be differentiated in a way to ensure that no developing country Party has a net benefit of less than zero. Furthermore, the most vulnerable should benefit most. The proposed rebate mechanism is described below.

17 Each developing country Party to the UNFCCC would be entitled to obtain an unconditional payment (rebate) equal to the cost incurred due to the maritime MBI.<sup>4</sup>

18 The amount of rebate would be calculated annually in a proportion to a key. The proposed key is a country's share of global imports by value.<sup>5</sup>

19 A developing country Party could decide to forego the rebate, or a part of it. This would provide additional flexibility to reflect differentiated national circumstances.<sup>6</sup>

20 The net revenue raised, after the rebates have been issued, should be split between assisting developing countries in implementing climate change action, and assisting the global shipping sector to accelerate reductions of its growing emissions through technological advances. The disbursement of this net revenue could be managed by the operating entity of the financial mechanism of the UNFCCC,<sup>7</sup> according to relevant rules and provisions.

21 In summary, disbursement of the MBI revenue is proposed to comprise two steps:

- .1 in the first step, any economic cost incurred by a developing country Party participating in the MBI is paid (rebated) to it, unconditionally; and
- .2 in the second step, the remaining revenue (net revenue), is disbursed through the operating entity of the financial mechanism of the UNFCCC.

22 Consequently, the net revenue would come from consumers in developed countries only, complying with the principles of the UNFCCC. Furthermore, developing countries would be beneficiaries of the MBI, with the most vulnerable countries to benefit most through the relevant rules and provisions applied at the second step. The shipping sector should also benefit at the second step, potentially through a new global Maritime Technology Fund, or similar.

---

<sup>3</sup> Using total volume of imports instead of value is not simple, as different ship types have significantly different energy efficiency (per tonne-mile of cargo carried). As a result an efficiency-weighted average would have to be used, considering different types of cargo imported by different ships. Such data is not widely available.

<sup>4</sup> The rebate, or a part of it, could be used for climate change action, subject to a sovereign decision by the receiving country Party.

<sup>5</sup> The Parties could replace the use of global imports by value with another measure when such information becomes available (for instance by a country's share of global seaborne imports by value-distance, or similar).

<sup>6</sup> A variable rebate rate from 0 to 1 may also be agreed, and recorded for each developing country.

<sup>7</sup> This could be the Copenhagen Green Climate Fund proposed in the Copenhagen Accord.

### **Lack of practical alternative for a global and differentiated mechanism**

23 In theory, it could be more efficient to exclude developing countries from participation in an MBI altogether, in order to comply with the CBDR and avoid the need for rebates. This would require differentiating the application of an MBI based on final destination of goods (as suggested in a statement by WWF, which can be found in document MEPC 58/23, annex 9, pages 25 and 26). Ships transporting goods to developed countries will be covered, while ships transporting goods to developing countries will not. Ships transporting goods to both developed and developing countries will be partially covered. Such an approach would eliminate any impact on imports to the developing countries up front.

24 However, the approach based on final destination of goods is complex. It would require obtaining a share of goods transported to developed countries for each ship or company worldwide. Given the tens of thousands of ships operating worldwide, collecting and validating such information would require significant administrative efforts.

25 In contrast, the rebate approach is much simpler as only approximately a hundred rebates are to be issued, one to each developing country, and the data required to calculate the rebates is readily available.<sup>8</sup> Furthermore, it provides important additional flexibility for a country to forego the rebate or part of it. Given these advantages, the approach based on the differentiated rebate is recommended.

### **Conditions to integrate the rebate mechanism with an MBI**

26 In principle the proposed rebate mechanism could apply to any MBI, providing it generates enough gross revenue to cover the rebate needs. Given that developing countries import approximately 30% of goods worldwide, the gross revenue of an MBI that can provide rebates for developing countries must be greater than 30% of the instrument's global impact or costs (assuming a uniform application; before any benefits are taken into account).

27 Any MBI based on a levy or a GHG contribution can directly use the proposed differentiated rebate, as its economic cost equals the gross revenue raised.

28 For an MBI based on emissions trading, such as cap-and-trade, the integration depends on its design. For instance, the total economic cost of cap-and-trade is the sum of (1) the cost of emission allowances distributed to the maritime sector and (2) the cost of emission allowances and credits purchased from other sectors. As the revenue in cap-and-trade is typically raised through emission allowance auctioning, only schemes that auction at least 30% of the emission allowances could apply the proposed rebate mechanism.

29 Net revenue raised by a chosen MBI, after the rebates have been issued, should be used for purposes agreed by the Parties to the UNFCCC and the IMO.

### **Securing advantages to shipping and world trade**

30 The maritime MBI should be proportional to similar measures taken in other industries, including other modes of transport, *inter alia* to deliver on UNFCCC's Article 3.5.<sup>9</sup>

---

<sup>8</sup> The rebates could be issued annually, or more frequently.

<sup>9</sup> Article 3.5 states: The Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change. Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.

31 One approach for such proportionality would be to ensure that international shipping is subject to the same carbon price as other industries, on average. This could be achieved by linking the maritime MBI to an economy-wide reduction scheme or schemes. The additional benefit of such price linkage would be that a global emission reduction target for international shipping (cap) would not be required, eliminating the contentious issue of setting such a cap, as elaborated in document MEPC 60/4/28 by the World Shipping Council.<sup>10</sup>

32 Providing that shipping is subject to the same carbon price as other sectors, the negative impact on volume of seaborne trade would be marginal, if any (before any improvements are considered). Even though shipping is the most cost and energy efficient mode of transport, it has a significant potential to increase its energy efficiency further, according to the Second IMO GHG Study 2009 (MEPC 59/INF.10). Furthermore, the greatest scope for efficiency improvements is in the supply chain to and from developing countries, including trade facilitation. Due to incentives from the MBI, and additional investments, the cost of transport for developing countries would be reduced most, contributing positively to their increased trade and development.

33 To further increase benefits to the most vulnerable developing countries, including the Small Islands Developing States (SIDS), the application threshold for an MBI could be set at a level higher than 400 gross tonnes (GT). For instance, it could be set at 4,000 GT, at least initially. This would practically exclude nearly all ships transporting goods to and from SIDS and other small countries, as their ports typically can receive only smaller ships.<sup>11</sup> This would also address the issue that any impact from a uniform MBI on SIDS would be highest due to relatively high cost of transport for these countries.<sup>12</sup>

34 The higher application threshold would also exclude coastal shipping in many countries, with the positive effect of stimulating its growth worldwide. As a result, additional transport emission reductions could be achieved from the shift of some land-transport to the more energy efficient coastal shipping. The concern that the introduction of an MBI for international shipping would lead to modal shift towards less energy efficient transport modes, e.g., rail and road, would thereby be alleviated. Finally, the higher application threshold would accelerate the MBI implementation, by significantly reducing the number of ships subject to the instrument, while reducing the total emissions covered by a small amount only.<sup>13</sup>

## Conclusions and proposal

35 Based on the outcome of the COP 15/CMP 5, and considering a decade of discussions at IMO and the UNFCCC on the relevant principles, it may be impossible to agree on an efficient MBI for international shipping without integrating the principle of CBDR in its design.

36 In this submission a top-down estimate of economic costs of a maritime MBI based on a country's share of imports was introduced. The country's share of imports was subsequently used as the differentiated rebate key for developing countries (disbursement step 1). The objective was to create a practical approach to incorporate the CBDR principle into a maritime MBI, rather than create a theoretical or perfect calculation regime of the impact costs.

---

<sup>10</sup> For example implementation details see the International Maritime Emission Reduction Scheme ([www.imers.org](http://www.imers.org)); it incorporates the carbon price linkage, as well as the differentiated rebate mechanism.

<sup>11</sup> J. Faber, K. Rensma, *Left on High Seas, Global Climate Policies for International Transport*, Delft, CE, 2008.

<sup>12</sup> See, for instance, document MEPC 58/4/39.

<sup>13</sup> The total number of ships over 400 GT and 4,000 GT in 2009 was approximately 45 and 25 thousand, respectively, based on Lloyds' Register-Fairplay records. Total CO<sub>2</sub> emission of ships over 4,000 GT is estimated to be only approximately 6% lower than total CO<sub>2</sub> emissions of ships over 400 GT.

Considering the overriding imperative to act on growing shipping emissions together, and that the most vulnerable countries would receive significantly higher funding through the net revenue generated (in disbursement step 2), such a practical approach seems fully justified. Furthermore, the approach can be combined with setting the application threshold at a level excluding transport to and from SIDS, for instance at 4,000 GT.

37 The Committee is invited to consider integrating the rebate mechanism proposed in this document in the design of any market-based instrument for international shipping as a way to creatively reconcile the principles of the IMO and the UNFCCC. This could unlock the debate and facilitate swift progress in this longstanding and controversial area.

**Action requested of the Committee**

38 The Committee is invited to consider the information provided and, in particular, the proposal in paragraph 37 and take action as appropriate.

---