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REDUCTION OF GHG EMISSIONS FROM SHIPS

Incorporating impact of trading distances in the Rebate Mechanism

Submitted by World Wide Fund for Nature (WWF)

	SUMMARY
Executive summary:	This document provides the results of incorporating trading distances to calculate a country's share of value-distance of global imports from non-adjacent countries for nearly 200 countries. These values may be used as the rebate and credit keys in the Rebate Mechanism by explicitly integrating trading distances they provide an alternative to the keys based on value of imports alone.
Strategic direction:	7.3
High-level action:	7.3.2
Planned output:	7.3.2.1
Action to be taken:	Paragraph 14
Related documents:	GHG-WG 3/3/11; MEPC 62/5/14; MEPC 64/5, MEPC 64/5/1 and MEPC 64/5/10

Introduction

1   This document provides comments on MEPC 64/5/1 (Secretariat) and MEPC 64/5/10 (WWF), in particular how to incorporate the impact of long trading distances in the Rebate Mechanism (RM) proposal for a Market-Based Measure for international shipping (MBM), and is submitted in accordance with the provisions of paragraph 6.12.5 of the Guidelines on the organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies (MSC-MEPC.1/Circ.4/Rev.2).

2   The draft terms of reference for further impact assessment of the proposed MBMs focus the work on developing countries, in particular, Least Developed Countries (LDCs) and Small Islands Developing States (SIDS) and remotely located developing countries with long trading distances (MEPC 64/5, annex, paragraphs 2, 16.2 and 16.3.3).

3   The draft legal text for the RM add-on (MEPC 64/5/10) states that a proxy for the economic impact on a country, excluding any short-term and long-term benefits, arising from a uniform MBM, such as ETS, GHG Fund and IMERS (RM integrated), may be calculated as a country's share of value-distance of global imports from non-adjacent countries (MEPC 64/5/10, regulation X-1). The document further suggests how these values can be

calculated but does not provide any results. This document is intended to present findings to prove the feasibility of incorporating the impact of long trading distances in an MBM.[1]

Incorporating impact of trading distances in the Rebate Mechanism

4   Various reports found that distance is not that strong a determinant of maritime freight costs. The impact of distance on freight costs was found by various researchers to be small; doubling the distance led to an increase of freight costs (including insurance) by circa 15-20 per cent (as reported in GHG-WG 3/3/11, paragraph 58).

5   In order to incorporate the impact of trading distances in the RM, while reflecting the above empirical findings and using existing data, the following "distance compression" approach is used:

> .1   doubling of a country trade-weighted distance (TWD) increases the burden of an MBM by 20%.[2]

6   The RM's distance-related rebate and credit keys for nearly 200 countries/regions are calculated and set out at annex, using the above "distance compression" approach and leveraging the results provided in GHG-WG 3/3/11, namely the TWD and share of imports from non-adjacent partners for the countries.[3]

7   As anticipated, the distance-related rebate or credit key for a country with a large TWD is greater than a corresponding key without the distance incorporated. For instance, for Chile, South Africa, Brazil, and Australia the relative increases are 14 per cent, 11 per cent, 10 per cent, and 9 per cent, respectively. The opposite relation is true for countries with a small TWD, such as the Bahamas.

8   However, the overall split between the impact on developed and developing countries, as measured by these two different proxies of impact, changes only slightly from 60:40 to 59:41 when distance is incorporated (for 2007 data, and using annex I to the UNFCCC to define the split).

Distribution of cost impact and the actual rebates

9   To further illustrate the draft legal text for the RM, the countries included in Annex II to the UNFCCC, as well as high-income countries (as categorized by the World Bank), are identified in the annex to this document.

10   The share of cost impact arising from the uniform MBM on annex II countries, high-income countries or regions not in annex II, LDCs, SIDS (not high income), and other countries are summarized in table 1. It illustrates that circa two thirds of the overall impact would fall on country groups 1 and 2 or in short on the high-income countries (as all annex II countries are high income).

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[1]   This proposal was developed by Andre Stochniol, with the support of CAFOD and Tearfund, in consultation with WWF.

[2]   Any benefits are ignored, and they may be greatest for the remote countries.

[3]   When a TWD could not be calculated for a given country due to lack of detailed trade data a global average was used (obtained as an average of TWDs for 124 countries covering circa 97% of international trade). The calculations are the researcher's sole responsibility; E-mail: andre@imers.org.

**Table 1: Share of impact for selected group of countries, 2007 data
(author's calculations)**

#	Group of countries	Share of Impact, %
1	Annex II of UNFCCC	53.1
2	High-income, remaining (not in group 1)	14.4
3	LDCs	1.1
4	SIDS (not high-income)	0.5
5	Other countries	30.9

11   The RM would allow any rebate-eligible country (i.e. a country not included in Annex II of the UNFCCC, or any successor annex) to provide cooperative contributions to international cooperation by foregoing its apportioned rebate, or part of it. The actual rebates for developing countries would depend on the option adopted for the cooperative contributions as well as on decisions of the rebate-eligible countries regarding their cooperative contributions (MEPC 64/5/10, article 4.2).

12   Based on table 1 the actual rebates, as proposed by the RM, would likely be somewhere between 2 per cent and 33 per cent of the total MBM costs, depending on these decisions. The lowest estimate of circa 2 per cent relates to only the groups 3 and 4 taking their apportioned rebates, i.e. LDCs and SIDS (except the high income ones). The higher estimate of 33 per cent relates to a scenario in which only the rebate-eligible high income countries (group 2) would forego their apportioned rebates as their contribution to international cooperation (or an equivalent scenario in which various countries forego part of the their apportioned rebates).

Conclusion

13   It is feasible to incorporate impact of trading distances in the Rebate Mechanism and thus deliver a fair and effective global MBM. A country's share of value-distance of global imports from non-adjacent countries is provided for nearly 200 countries. These values may be used as the rebate and credit keys in the RM; by explicitly integrating trading distances they provide an alternative to the keys based on value of imports alone, proposed in document MEPC 62/5/14.

Action requested of the Committee

14   The Committee is invited to consider the information provided and to take action as appropriate.

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ANNEX

REBATE AND CREDIT[1] KEYS FOR COUNTRIES/REGIONS

Calculated as a country's share of value-distance of global imports
from non-adjacent partners, based on trade data for 2007

Country/region	Key, %	Country/region	Key, %	Country/region	Key, %
Afghanistan	0.0232	Georgia	0.0358	Norway	0.4302 [2, 3]
Albania	0.0271	Germany	4.8615 [2, 3]	Oman	0.1225 [3]
Algeria	0.2521	Ghana	0.0763	Pakistan	0.2761
Andorra	0.0096 [3]	Greece	0.6600 [2, 3]	Palau	0.0017
Angola	0.0870	Grenada	0.0037	Panama	0.0619
Antigua and Barbuda	0.0073	Guatemala	0.1079	Papua New Guinea	0.0266
Argentina	0.3973	Guinea	0.0124	Paraguay	0.0400
Armenia	0.0264	Guinea-Bissau	0.0010	Peru	0.1744
Australia	1.7599 [2, 3]	Guyana	0.0093	Philippines	0.5833
Austria	0.4553 [2, 3]	Haiti	0.0152	Poland	0.7384 [3]
Azerbaijan	0.0401	Honduras	0.0504	Portugal	0.4356 [2, 3]
Bahamas	0.0184 [3]	Hungary	0.4358 [3]	Qatar	0.2288 [3]
Bahrain	0.1143 [3]	Iceland	0.0614 [2, 3]	Romania	0.4822
Bangladesh	0.1736	India	2.0105	Russian Federation	1.1024
Barbados	0.0120 [3]	Indonesia	0.6736	Rwanda	0.0055
Belarus	0.0838	Iran (Islamic Rep. of)	0.4070	Saint Kitts and Nevis	0.0027
Belgium	1.6904 [2, 3]	Iraq	0.1903	Saint Lucia	0.0062
Belize	0.0051	Ireland	0.5469 [2, 3]	Saint Vincent and the Grenadines	0.0033
Benin	0.0100	Israel	0.5824 [3]	Samoa	0.0027
Bhutan	0.0048	Italy	2.8524 [2, 3]	San Marino	0.0000 [3]
Bolivia	0.0190	Jamaica	0.0595	Sao Tome and Principe	0.0008
Bosnia and Herzegovina	0.0587	Japan	6.5957 [2, 3]	Saudi Arabia	0.9340 [3]
Botswana	0.0361	Jordan	0.1049	Senegal	0.0486
Brazil	1.2431	Kazakhstan	0.1642	Serbia	0.1344
Brunei Darussalam	0.0190 [3]	Kenya	0.0931	Seychelles	0.0086
Bulgaria	0.2130	Kiribati	0.0007	Sierra Leone	0.0040
Burkina Faso	0.0154	Korea, Dem. People's Rep. of	0.0149	Singapore	2.3634 [3]
Burundi	0.0040	Korea, Rep. of	3.6822 [3]	Slovakia	0.3088 [3]
Cambodia	0.0479	Kuwait	0.2215 [3]	Slovenia	0.0883 [3]
Cameroon	0.0342	Kyrgyzstan	0.0172	Solomon Islands	0.0028
Canada	1.8659 [2, 3]	Lao People's Democratic Republic	0.0097	Somalia	0.0043
Cape Verde	0.0067	Latvia	0.0802 [3]	South Africa	0.8979
Central African Republic	0.0021	Lebanon	0.1133	Spain	2.7775 [2, 3]
Chad	0.0234	Lesotho	0.0157	Sri Lanka	0.1177
Chile	0.4334	Liberia	0.0045	Sudan	0.0951
China	8.9205	Libyan Arab Jamahiriya	0.0611	Suriname	0.0094
Hong Kong SAR, China	2.1256 [3]	Lithuania	0.0997	Swaziland	0.0115
Macao SAR, China	0.0338 [3]	Luxembourg	0.0456 [2, 3]	Sweden	0.8690 [2, 3]
Colombia	0.2540	Macedonia (the former Yugoslav Rep. of	0.0356	Switzerland	0.5198 [2, 3]
Comoros	0.0012	Madagascar	0.0266	Syrian Arab Republic	0.1254
Congo	0.0270	Malawi	0.0111	Taiwan Province of China	2.2076
Congo (Democratic Rep. of the)	0.0267	Malaysia	1.2144	Tajikistan	0.0123
Cook Islands	0.0010	Maldives	0.0100	Tanzania, United Rep. of	0.0601
Costa Rica	0.1212	Mali	0.0149	Thailand	1.3640
Côte d'Ivoire	0.0661	Malta	0.0462 [3]	Timor-Leste	0.0042
Croatia	0.2017 [3]	Marshall Islands	0.0007	Togo	0.0081
Cuba	0.1094	Mauritania	0.0129	Tonga	0.0014
Cyprus	0.0794 [3]	Mauritius	0.0419	Trinidad and Tobago	0.0681 [3]
Czech Republic	0.4390 [3]	Mexico	1.4441	Tunisia	0.1444
Denmark	0.3949 [2, 3]	Micronesia (Federated States of)	0.0004	Turkey	1.4884
Djibouti	0.0043	Moldova, Rep. of	0.0235	Turkmenistan	0.0115
Dominica	0.0017	Mongolia	0.0080	Tuvalu	0.0002
Dominican Republic	0.1215	Montenegro	0.0161	Uganda	0.0300
Ecuador	0.1135	Morocco	0.2727	Ukraine	0.3045
Egypt	0.2436	Mozambique	0.0231	United Arab Emirates	1.3278 [3]
El Salvador	0.0718	Myanmar	0.0296	United Kingdom	4.0143 [2, 3]
Equatorial Guinea	0.0280 [3]	Namibia	0.0097	United States of America	16.3346 [2, 3]
Eritrea	0.0064	Nauru	0.0008	Uruguay	0.0392
Estonia	0.1050 [3]	Nepal	0.0267	Uzbekistan	0.0244
Ethiopia	0.0584	Netherlands	2.3738 [2, 3]	Vanuatu	0.0019
Fiji	0.0181	New Zealand	0.3431 [2, 3]	Venezuela (Bolivarian Rep. of)	0.3448
Finland	0.5976 [2, 3]	Nicaragua	0.0297	Viet Nam	0.5105
France	2.5871 [2, 3]	Niger	0.0093	Yemen	0.0815
Gabon	0.0199	Nigeria	0.3513	Zambia	0.0378
Gambia	0.0029	Niue	0.0001	Zimbabwe	0.0127

SAR = Special Administrative Region

[1]   Credit keys are for Parties in annex II to the UNFCCC, and any successor annex.
[2]   Country in annex II to the UNFCCC.
[3]   High-income country, as per World Bank.

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