

FACT SHEET

Rebate Mechanism for fair and global carbon pricing of International Transport

Proposals in 140 characters:

Rebate Mechanism (RM)

All ships/planes pay for their emissions. Certain countries obtain rebates, and the remaining revenue goes to climate change action.

Shipping, IMERS

A levy on fuel for international shipping with RM, applied globally, collected centrally, likely to contribute \$10bn+ to GCF.

Aviation, IA Fund (potential)

A levy on fuel for international aviation with RM, applied globally, likely to contribute \$5bn+ to GCF. (GCF = Green Climate Fund)

TWO PROBLEMS

1. **Current mechanisms** to finance climate change adaptation in developing countries **are inadequate**, both in scale and predictability.
2. There is **lack of agreement on** a global approach to reducing CO2 emissions from **international maritime transport** and aviation, yet emissions are significant, and fuels are under-charged as they are tax-exempt.

Solutions to both problems **should be global**, and respect the UNFCCC principles and provisions.

THE SOLUTION

Fair carbon pricing of emissions from international maritime transport is proposed to effectively address the above two problems. To catalyze the scheme's global application, the UNFCCC principles are operationalized through a Rebate Mechanism (RM) in which developing countries can be rebated the cost of the scheme, and the remaining revenue is used for climate change action, **including** in the maritime sector. An integrated scheme is called International Maritime Emission Reduction Scheme (IMERS), but RM can be combined with any other carbon pricing proposal, such as the GHG Fund and Emission Trading System (ETS), as considered at the

International Maritime Organization (IMO). The RM approach may apply to international aviation as well.ⁱ

QUESTIONS on RM

1. What is the RM and how does it address equity and various national circumstances in a global scheme?

The RM is a mechanism to reconcile the principles of international transport and climate conventions through the uses of revenue generated. Under the RM:

- Non developed countries are entitled to annual rebates;
- Developed countries are not entitled to such rebates.

Revenue generated from developed countries goes to climate change action. Any rebate-entitled country, based on its circumstances, may decide to forego its rebate, or part of it, towards global cooperation.

2. How does the RM work?

The mechanism calculates an apportioned rebate using the global cost of the scheme and a key, country-by-country. The proposed key is a country's share of value-distance of global seaborne imports. Each rebate-entitled country would receive the rebate, unless it decides to forego it. The country that would forego its rebate, or part of it, would be internationally recognized for such action, and the foregone rebate would go towards agreed international collaboration goals.

Developed countries are credited for the amount of financing raised through the scheme, based on the same key. Consequently, the net revenue raised, after rebates have been issued, would come from customers in developed countries only, thereby respecting the principles of the UNFCCC.

3. What definition of developed countries is used by the RM?

In RM, developed countries are considered to be countries included in Annex II of the UNFCCC, or in any successor annex, or arrangement.

4. Why not implement a scheme for UNFCCC Annex I countries only?

A scheme limited to Annex I countries only is not a workable proposition due to the inherently global nature of maritime transport (and aviation). Such a scheme would lead to competitive distortions and carbon leakage. Under RM all ships (or aircraft) active in international transport pay for their emissions, irrespective of the flag they fly and the nationality of the owner.

5. Why not just agree on a uniform scheme without any rebates?

Addressing developing countries' concerns about the extra cost burden a scheme for international transport could place on them is essential – from both a social justice and political perspective. Although the cost burden would be small, the

impact will be relatively greater on countries more dependent on seaborne imports, a category in which Least Developed Countries (LDCs) and Small Island Developing States (SIDS) feature heavily.ⁱⁱ In other words, the rebates ensure no net burden on poorer countries, in accordance with the core equity principle of the UNFCCC.ⁱⁱⁱ

6. How are the rebates calculated?

The apportioned rebate for the previous year is calculated as:

gross cost x country's rebate key

The country's rebate key would equal a verifiable proxy for the country's share of gross cost burden arising from the scheme (excluding any short- and long-term benefits). The calculated rebate and credit keys for nearly 200 countries are set out in the annex, based on trade transported by sea and air, and taking into account the impact of trading distances.^{iv} For illustration, if the total annual cost of the scheme is \$10bn, Ethiopia would receive a rebate of \$5.84 million the following year, based on the rebate key of 0.0584 percent (see annex).

7. How would a legal text look like?

The entitlements to rebates, cooperative contribution and credit for mobilized finance are defined in the RM draft legal text as follows:

1. Each Party not included in Annex II of the UNFCCC, or any successor annex, shall be eligible to an apportioned rebate, and shall obtain the rebate unless paragraph 2 applies.
2. Cooperative contribution:
 - 2.1 Any rebate-eligible Party may decide to forego its apportioned rebate, or part of the rebate, as its contribution to international cooperation.
 - 2.2 Each such Party shall record its decision in advance in Annex A to this [Convention], and shall be recognized for its decision and the amount contributed.

3. Parties included in Annex II to the UNFCCC, or any successor annex, or arrangement, shall not be eligible for rebates.

4. Credit for mobilized finance:

4.1 Each Party not eligible for a rebate shall be credited for finance mobilized through this [Convention].^v

8. Should high-income non-Annex II countries forego their rebates?

The cooperative contribution does not preclude this. Such countries could for instance agree to a following paragraph 2.1:

2.1 Each rebate-eligible high-income Party undertakes to forego its apportioned rebate, and any other rebate-eligible Party may decide to forego its apportioned rebate, or part of the rebate, as its contribution to international cooperation.^{vi}

9. How much would rebates cost?

The cost of actual rebates may be relatively small, and would depend on the RM agreement, and decisions of the rebate-eligible countries.

The burden distribution arising from a uniform scheme, ignoring any potential rebates and benefits, is provided for an illustrative group of countries in Table 1, based on data in annex. The results show that circa 70 percent of burden would fall on countries in groups 1, 2, and 3, or in short on the high-income countries.

Table 1: Share of burden, 2007 data

#	Group of countries	% of cost
1	Annex II of UNFCCC	53.1
2	High-income, in Annex I, not in Annex II	6.2
3	High-income, not in Annex I	10.3
4	LDCs	1.1
5	SIDS (not high-income)	0.5
6	Other countries	28.8

For illustration, if the rebate-eligible high income countries (i.e. countries in groups 2 and 3) would forego their apportioned rebates as their

contribution to international cooperation, then the cost of actual rebates would be somewhere between 2 and 30 percent of the total MBM costs, depending on how many countries in group 6 decided likewise to forego their rebates, or part of them (for additional detail see questions 5 and 12).

10. How & where can it be agreed?

Detailed proposals for a market-based measure (MBM) have been under consideration at the IMO for over five years.^{vii} It seems that progress can only be made if the IMO member-Parties agree to take into account the principles and provisions of the UNFCCC through the uses of generated revenue, as other options are not workable.^{viii} The same applies to aviation and the International Civil Aviation Organization (ICAO). A political invitation to this effect could help, but did not come from the recent UNFCCC COP18 at Doha.^{ix} Such agreement still could and should be done at the IMO, and ICAO, by 2015.

11. Would an agreement on RM not prejudice the post 2015 outcome?

There is growing support for the RM approach.^x The international maritime transport and aviation are unique, inherently global sectors, regulated by the UN's IMO and ICAO respectively. They require global solutions, as unilateral approaches will not work. Operationalizing equity in these sectors in a workable manner, without distorting competition or carbon leakage, will enable increased ambition and action on climate change in these sectors. This could lead to reduced not increased cost of international transport and trade, which is of particular importance to developing countries. Finally, the agreement on RM would in no way prejudice the negotiations held at the UNFCCC, nor affect the positions of the participating countries.

12. Which countries would be impacted most, without the RM?

Without any compensation for its burden, carbon pricing of international transport would be regressive as it would impose a larger cost burden relative to GDP on many poorer countries that rely heavily on imports by sea and air (see also question 5). This includes some small island developing states and least developed countries (see Table 2, except Singapore and Hong Kong which are high income trading hubs). The ten countries least impacted include various economies least reliant on imports by sea and air, as a share of GDP, such United States and Brazil (see Table 3).

Figure 1 illustrates that various poorer and remote countries would be impacted most by a carbon price on international transport without the RM or a similar approach applied, while most G20 countries would be impacted less than world average.

Table 2: Estimated burden* – top 10 countries

Ran k	Country/Region	% of GDP	No tes
1	Singapore	0.130	^{2,3}
2	Hong Kong SAR, China	0.094	³
3	Palau	0.094	²
4	Kiribati	0.092	^{1,2}
5	Maldives	0.088	^{1,2}
6	Lesotho	0.086	¹
7	Timor-Leste	0.086	^{1,2}
8	Iraq	0.082	
9	Guyana	0.080	²
10	Seychelles	0.077	²

Table 3: Estimated burden* – bottom 10 countries

Ran k	Country/Region	% of GDP	No tes
189	United States	0.011	³
190	Norway	0.010	³
191	Namibia	0.010	
192	Uzbekistan	0.010	
193	Korea, Dem. Rep.	0.010	
194	France	0.009	³
195	Libya	0.009	
196	Brazil	0.009	
197	Luxembourg	0.008	³
198	Russian Federation	0.008	

Notes for Tables 2 and 3:

* Estimated using 2007 trade data^{xi}

¹ Least Developed Country, LDC

² Small Island Developing State, SIDS

³ High Income Country/Region (as per World Bank)

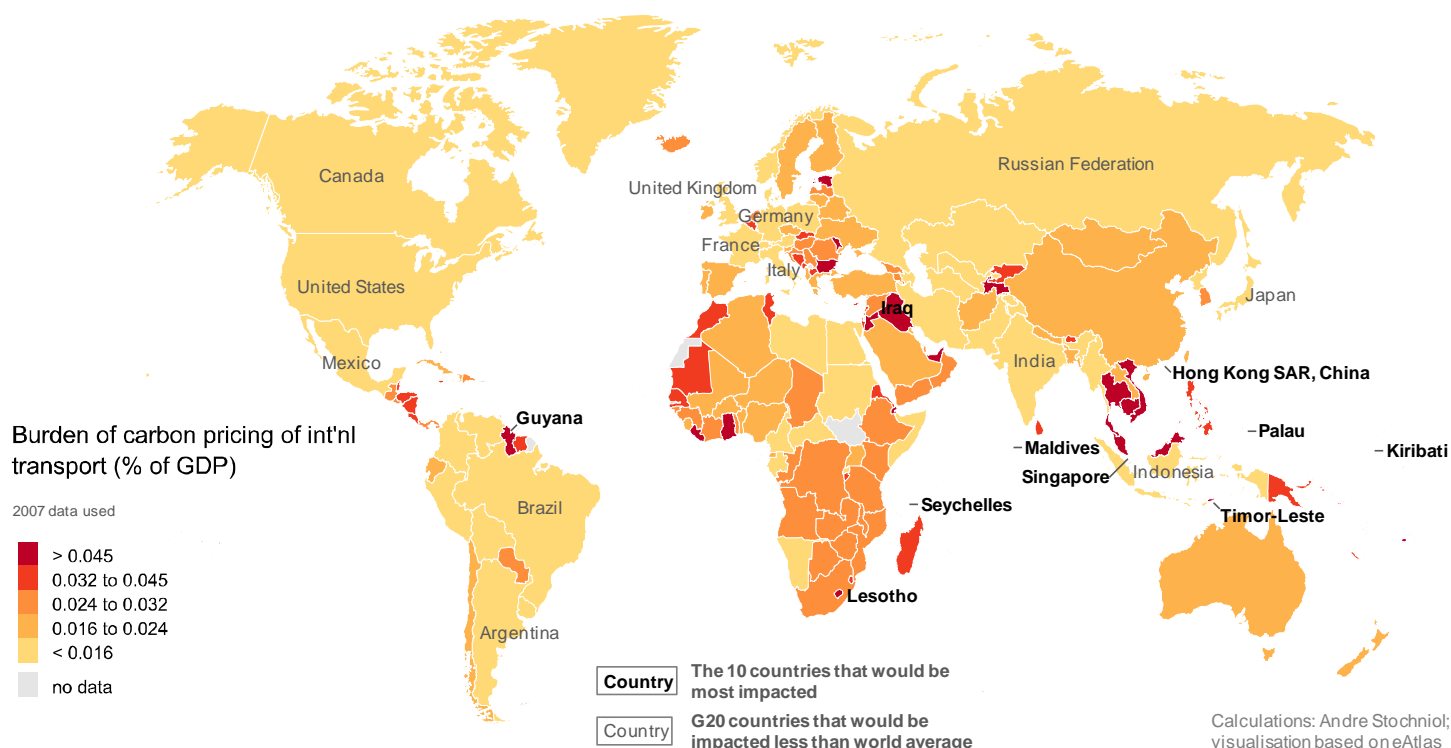


Figure 1: Estimated burden of carbon pricing of international transport, assuming no RM or similar

QUESTIONS on IMERS

13. What is the IMERS proposal?

IMERS integrates RM with a levy on CO₂ emissions from international shipping (thus it is also known at the IMO as “RM integrated”). There are other proposals at the IMO for carbon pricing of shipping emissions, but no other proposal has embraced or integrated the RM so far.^{xii}

14. Why should a developed /developing country support it?

IMERS, or similar, would:

- Reduce GHG emissions from international maritime transport (and thus reduce cost of international transport/trade);
- Promote fairness and efficiency in addressing the collective challenge of mitigating and adapting to climate change.

15. Would any revenue be generated, and if so, what for?

Yes. Revenue generated will be used to support global action on climate change, including in the maritime sector, taking into account equity and national circumstances of various countries.

16. How would the solution work?

Under the IMERS scheme, a market-driven levy is established on fuel bunkered, as an alternative for a levy on greenhouse gas emissions. The levy would apply to all ships over a predetermined size (say 400 GT), engaged in international maritime transport, irrespective of flag and shipowner nationality. The liable entity in the scheme is a ship, uniquely identified by its IMO number.

17. How is fairness for the sector ensured, i.e. paying what is fair?

In order to ensure proportionality and predictability of the maritime effort to combating climate change, the emission levy will be calculated from an average carbon price,

established by the largest economy-wide emission reduction scheme, and set constant for a year. To increase investment certainty, a price floor and ceiling will apply.

18. How will it be enforced?

Ships will register with the scheme, report periodically the type and quantity of fuel bunkered, and pay the emission levy on said fuel. The scheme will be enforced by port entry conditions, following the non favorable treatment of ships.^{xiii}

19. What would the consumer see?

The anticipated average impact of the scheme on final consumers is marginal, only circa 0.2% increase in the price of imported goods. When the technical and operational improvements unlocked by the scheme are included, **consumers would see net benefits** due to reduced cost of transport over longer term.^{xiv}

20. When can the scheme start?

The instrument for a global maritime scheme could be ready for adoption by 2015, assuming there is political will to complete the substantive work already undertaken at the IMO. It could enter into force by 2017, subject to the conditions that are agreed at the time of adoption (relating to the number of States and percentage of world tonnage), and the political will of governments to ratify the instrument, if done as a convention (the same for aviation/ICAO).

21. How will the levy be collected?

The levy will be obtained worldwide directly from ships, which will pay the levy periodically based on fuel consumption to their central carbon accounts.

22. What if a country could not agree to a global levy collection?

Such a country could decide to opt out from the global collection, and

declare that it assumes collection of the emission levy on fuel bunkered in its territory. The declaration will specify how the various obligations are delivered. For each ship the total payments obtained from direct and indirect mechanisms will have to cover its emissions.

23. Any legal precedent for IMERS?

The International Oil Pollution Compensation Funds (IOPC Funds) provide a precedent for direct, international collection of a maritime levy from commercial entities, in over 100 countries.^{xv}

24. How does it comply with the WTO and GATT rules?

It does not discriminate imports or services from any country.

25. How much could be contributed to the Green Climate Fund?

A carbon charge of \$25 per tonne of CO₂ on ship fuels would generate circa \$25 billion annually from 2017, given the emissions from international maritime transport of circa 1Gt CO₂. Depending on the RM agreement and related decisions, circa \$10bn could be contributed to the GCF, in such a scenario.^{xvi}

26. Will the scheme galvanize international cooperation?

Due to the financial and debt crisis, generating additional funding from domestic budgets will be challenging in many countries. Therefore IMERS - or similar - will not only address the most difficult to regulate source of emissions and, with time, reduce the cost of international transport/trade, **it will secure one of the most effective ways to generate significant additional financing** for climate change action.

For further detail or discussion, including draft legal texts, please contact:

Andre Stochniol, andre@imers.org, +44 7809 764 894

ANNEX
REBATE AND CREDIT¹ 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	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
China, Hong Kong SAR	2.1256 ³	Lithuania	0.0997	Swaziland	0.0115
China, Macao SAR	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 ³
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, or in any successor annex (author's calculations)

² Country in Annex II to the UNFCCC.

³ High-income country, as per World Bank.

Notes:

ⁱ RM and IMERS were proposed in submissions to the IMO contained in documents [MEPC 60/4/55](#) and [MEPC 61/5/33](#) (submitted by the IUCN). Technical details were provided to the IMO Expert Group on Feasibility Study and Impact Assessment of possible Market-based Measures (MBM-EG). The [MBM-EG report](#) of 2010 contains details of the MBMs being considered at the IMO. IA Fund is not a formal proposal, as yet.

ⁱⁱ The [Fair Finance](#) briefing, published by CAFOD in 2011. A 2-page summary is also [available](#). The value of imports by sea and air for the top 10 countries is approximately equivalent to their GDP, circa six times greater than the world average (estimated at 17% of GDP)

ⁱⁱⁱ The High-level Advisory Group on Climate Change Financing ([AGF](#)), established by the United Nations Secretary-General, found that the application of a carbon-pricing mechanism to international transport emissions is an important potential source of climate financing that could contribute towards mobilizing US\$100 billion per year by 2020 to address the needs of developing countries. The AGF's assumption was that any mechanism raising climate finance would have no net incidence on developing countries. The same assumption is used in the 2011 report for the G20 finance ministers on [Mobilizing Climate Finance](#). Both reports highlight the Rebate Mechanism proposal, including in the [background paper](#) by the IMF/World Bank entitled Market Based Instruments for International Aviation and Shipping as a Source of Climate Finance.

^{iv} After detailed analysis, a country's share of value-distance of global seaborne imports has been selected to proxy the country's share of cost burden. The impact of trading distances was found relatively small as doubling the distance led to increase of the freight costs by circa 15-20 percent. The results, including the rebate and credit keys are shown in annex to this paper, and have been submitted to the IMO in document [MEPC 64/5/12](#) (by WWF). Once implemented, the keys could be calculated each year, to reflect the changes in trade patterns. Notably the selected key implicitly includes impact on the country's exports (to a degree), but is simple given that only data on country imports is required, and it is more robust given that data on imports is more reliable than data on exports. Furthermore, the approach based on imports alone is more beneficial in assessing impacts on the poorest countries, such as the LDCs, as it provides a higher estimate of impacts when compared with any calculations based on splitting the impacts during the estimation between importers and exporters. This is justified by the fact that poor countries generally import more than they export, and import a significant amount of low value products characterized by higher unit transport costs. For technical analysis see for instance the following documents: [Analysis for Bangladesh and South Africa](#), [Optimal rebate key](#).

^v See the draft legal text for the Rebate Mechanism contained in document [MEPC 64/5/10](#) submitted to the IMO (by WWF). It assumes that a new Convention would be established under the IMO, as it is proposed by the other revenue raising proposals. An alternative, not formally proposed, could be for the UNFCCC to establish the mechanism and invite the IMO to enforce it through relevant maritime provisions.

^{vi} [ibid.](#)

^{vii} See "A rebate mechanism for an equitable maritime emission reduction scheme", pp. 112-147, and "Climate change: A challenge for IMO too", pp75-111, in *Maritime Transport and the Climate Change Challenge*, 2012.

^{viii} For a systematic analysis on why there is no feasible way to differentiate carbon pricing of ships, without distorting competition or carbon leakage, see document [GHG-WG 3/3/3](#). The document examines four ways in which differentiated application could potentially be achieved, namely differentiation by flag, country of genuine control, route of ship and final destination of cargo. It concludes that all have serious drawbacks. Out of the two potential options that would apply to all shipping activities but where the revenues raised would be distributed in a differentiated manner to the benefit of developing countries, the analysis favoured global application with a RM.

^{ix} For the decision options see the [informal note](#) on cooperative sectoral approaches. Another option is a political agreement at the G20.

^x See for instance an analysis in document [MEPC 63/5/6](#) (by WWF). At the IMO MEPC 63rd session "a number of delegations stated that the RM is an innovative and constructive proposal that addresses the CBDR principle and should be analysed and considered further".

^{xi} Trade data for non-adjacent partners was used, as a proxy for trade by air and sea, together with a carbon price of USD9/tCO₂ for 2007 (chosen to achieve a similar cost effect as applying carbon price of \$25/tCO₂ in 2020, i.e. equivalent to circa 6% of average maritime fuel price). The impact of trading distances was implemented through the "distance compression" approach: doubling of a country trade-weighted distance increases the burden of a carbon pricing of international transport by 20% (as proposed in document [MEPC 64/5/12](#)).

^{xii} For further details on the various proposals see for instance the IMO [note](#) to the first meeting of the Transitional Committee for the design of the Green Climate Fund entitled "Market-based measures for international shipping", and a [comprehensive report](#) from the work undertaken by the Expert Group on Feasibility Study and Impact Assessment of possible Market-based Measures (MBM-EG).

^{xiii} The enforcement is to rely on standard procedures and a ship specific emissions Registry. A computer-based system will be implemented to ensure robust, efficient and continuous operations. The system will be accessible globally, be secure and reliable. It may comprise a central Registry, and payment accounts for all ships, and should implement the following key processes: (1) Registering of ships, in the Registry; (2) Reporting of fuel bunkered, by ship to the Registry; (3) Payment of the emission levy, by ship to the Fund; (4) Status check of ship's compliance, by Flag and Port States, through querying the Registry.

^{xiv} The average cost increase of imports can be calculated by dividing the cost burden of the scheme, not taking into account any benefits, by the value of seaborne trade, which is measured in US\$ trillions. [Such calculations](#) show an average 0.16% increase in prices of imports in 2020, for the scheme costs of \$26bn. Detailed calculations for individual countries, as well as food separately, confirm the small increases in import prices of circa 0.2% - 0.3%, on average. See for instance the following briefings and reports: [Analysis for Bangladesh and South Africa](#), [MBM-EG Report](#), [Impact on food prices](#), [background paper](#) for the G20 Report, [Sink or Swim](#) report (impact on the U.S.). It is also worth noting that the above scheme cost would likely be less than 10% of the cost of fuel. Thus it would be dwarfed by the increase in fuel prices over the last few years, as these prices nearly trebled.

^{xv} The United States is not part of the IOPC Funds mostly because its national approach for compensation from spills of oil from ships is more stringent. For additional detail and analysis see: "[Liability and compensation for ship source oil pollution](#): An overview of the international legal framework for oil pollution damage from tankers", UNCTAD, 2012.

^{xvi} The amount of finance available for international purposes would depend on the RM agreement and country decisions on their entitlements to rebates, as well as on the agreement where the cooperative contributions would go. In one illustrative scenario, 20 percent (\$5bn) of the total amount may be sufficient for the actual rebates distributed primarily to the poorer countries and most impacted countries (one such potential scenario is: high-income countries forego their rebates, and various upper middle income countries forego on average half of their rebates). Out of the remaining 80 percent of total (\$20bn), half (\$10bn), could be contributed to the Green Climate Fund, if so decided. The other half of the remaining funds (\$10bn) could be used for technology and infrastructure improvements, mitigation and other purposes, including for R&D projects and technical cooperation to reduce the GHG emissions from international maritime transport. Only relevant shares of these amounts should count towards the financial commitments of developed countries. The above figures are illustrative, and for a lower carbon price the revenues would be lower. The split between GCF and maritime financing could also change with time (the same for aviation).