Decarbonizing international shipping: An appraisal of the IMO’s Initial Strategy

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1 INTRODUCTION

In April 2018, the International Maritime Organization (IMO) adopted the ‘Initial IMO Strategy on Reduction of GHG Emissions from Ships’, the first tangible achievement of the roadmap it set for itself in November 2016. This article assesses the IMO’s Initial Strategy in light of the long-term goals of the Paris Agreement on climate change, and considers its ambition, adequacy and effectiveness in ensuring a fair contribution to the global decarbonization effort. The article offers a brief history of efforts to reduce emissions from international shipping under the United Nations climate regime and the IMO. It then discusses the key elements of the 2018 IMO Strategy, followed by an assessment of its strengths and weaknesses.


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support, influence or complement the work of the IMO through the UN climate regime (Section 6).

2 BRIEF HISTORY OF EFFORTS UNDER THE UN CLIMATE REGIME

Efforts to address international shipping under the United Nations Framework Convention on Climate Change, 1992 (UNFCCC) were initiated with a UNFCCC Secretariat report in 1995, released shortly after the entry into force of the UNFCCC in 1994. The main challenge at the time was that the UNFCCC was allocating emissions to individual State parties, and it was not clear whether or how emissions from international shipping would be accounted for by parties. The report identified eight options for dealing with emissions from international shipping under the UNFCCC. These options were then reduced to five through deliberations by the Subsidiary Body for Scientific and Technological Advice (SBSTA). The five options selected by the SBSTA included the ‘no allocation’ option, as well as allocation to the State where the bunker fuel is sold, allocation to the State of registration or ownership of the vessel, allocation to the State of origin or destination of the vessel, and allocation to the State of origin or destination of the cargo or passengers. None of these options have ever been selected under the UNFCCC, but all remain open for adoption in the future.

The 1997 Kyoto Protocol to the UNFCCC similarly does not allocate emissions from international shipping to individual parties. Rather, Article 2(2) requires developed country parties to work through the IMO. Reducing emissions from this growing sector remained important for the achievement of the ultimate objectives of the UNFCCC, so it is not surprising that the issue resurfaced once the attention of the parties to the UNFCCC turned to the post-Kyoto negotiations, starting with the Bali Climate Change Conference in 2007. GHG emissions from international shipping remained on the agenda of the negotiations until their conclusion in 2015 in Paris. The Paris Agreement does not repeat the call in the Kyoto Protocol for parties to work through the IMO to address GHG emissions from international shipping. The future of the Kyoto Protocol after 2020, and with it the status of Article 2(2), is unclear at this time. This raises questions about the potential impact of the replacement of the Kyoto Protocol with the Paris Agreement in 2020 on the mandate of the IMO. In any case, the IMO is generally considered ‘the competent organization’ with respect to international shipping for the purposes of the 1982 United Nations Convention on the Law of the Sea (LOS), including for the regulation of atmospheric emissions, and its own constitutive convention which provides it with a broad mandate for the ‘general adoption of the highest practicable standards in matters concerning the ... control of marine pollution from ships’.

It is important to note that the draft negotiating text of the Paris Agreement did include proposals from some parties for a specific reference to international shipping and aviation. These proposals were not included in the final version of the Paris Agreement. For now, international shipping has also not been included in the emission reduction commitments of parties in the form of their nationally determined contributions (NDCs). Still, there is nothing in the Paris Agreement to prevent a party from voluntarily reporting on emissions from international shipping, or from including international shipping in some form in its NDC.

While the Paris Agreement does not specifically mention emissions from international shipping, and the IMO is continuing its efforts, the absence of any reference to this mandate in the Agreement has the potential to strengthen the hand of the UN climate regime going forward compared to the situation under the Kyoto Protocol. If the Paris Agreement had made specific reference to the IMO, the result may have been to discourage parties to the UN climate regime from taking responsibility for these emissions. By remaining silent on the efforts of the IMO, it remains debatable to what extent the UN climate regime can be taken to have endorsed the mandate of the IMO or to have delegated the issue to it. At the same time, the IMO already had a mandate to deal with this issue as a result of its responsibilities under the LOSC and its constitutive agreement. However, the Paris Agreement will take over at this time, the Kyoto Protocol remains valid. What is unclear is whether it will have any meaningful function after 2020, and whether it will be formally abandoned by parties at some point.

16 For an exploration of opportunities to address GHG emissions from shipping under the UN climate regime, see C Pisaní, ‘Fair at Sea: The Design of a Future Legal Instrument on Marine Bunker Fuels Emissions within the Climate Change Regime’ (2002) 33 Ocean Development and International Law 57.
what is clear is that the UN climate regime will continue to monitor progress as part of the five-yearly ‘global stocktake’ under the Paris Agreement,\(^{18}\) and that the pressure on parties to the UN climate regime, who are also IMO member States, to act in case of inadequate progress at the IMO, will remain.\(^{19}\)

### 3 | BRIEF HISTORY OF EFFORTS UNDER THE IMO

As discussed above, the Kyoto Protocol requires Annex I parties to the UNFCCC to pursue the reduction of GHG emissions from marine bunker fuels not addressed by the Montreal Protocol through the IMO. In 1997, an IMO air pollution conference invited the organization’s Marine Environment Protection Committee (MEPC) to consider what carbon dioxide (CO\(_2\)) strategies might be feasible in light of the relationship of that gas with other atmospheric pollutants, citing the IMO’s task under the Kyoto Protocol.\(^{20}\) Since MEPC 42 in 1998 there has been ongoing cooperation between the IMO Secretariat and UNFCCC bodies, including the SBSTA,\(^{21}\) for example through the provision of information to the various SBSTA sessions.\(^{22}\)

Several IMO member States submitted ideas, including for technical, operational and market-based measures to a correspondence group, which were reported to MEPC 57 in 2007.\(^{23}\) The correspondence group undertook an in-depth and systematic discussion of proposed measures and their suitability for the short or long term, including advantages and drawbacks. The group identified policy issues, including the respective roles of the fundamental principles of no more favourable treatment (NMFT) in the IMO conventions and common but differentiated responsibilities (CBDR) in multilateral environmental agreements such as the UNFCCC; considered the feasibility and implication of global, regional and national approaches; and assessed whether shipping could be considered under the Kyoto Protocol’s Clean Development Mechanism.\(^{24}\) A collective submission by delegations and industry organizations with consultative status proposed that any future regulations should be based on fundamental principles that would inform the future IMO framework for GHG regulation.\(^{25}\) This was embraced by MEPC 57, concluding that the framework should be:

1. effective in contributing to the reduction of total global greenhouse gas emissions;
2. binding and equally applicable to all flag States in order to avoid evasion;
3. cost-effective;
4. able to limit, or at least, effectively minimize competitive distortion;
5. based on sustainable environmental development without penalizing global trade and growth;
6. based on a goal-based approach and not prescribe specific methods;
7. supportive of promoting and facilitating technical innovation and R&D [research and development] in the entire shipping sector;
8. accommodating to leading technologies in the field of energy efficiency; and
9. practical, transparent, fraud free and easy to administer.\(^{26}\)

The principles were adopted by a majority vote called by the chair after a difficult debate. A key challenge throughout the negotiations has been the relationship and perceived conflict between the IMO’s NMFT principle and the UNFCCC’s CBDR principle. The failure to reach consensus on the nine principles arises out of this conflict, with principle two serving as the flashpoint. More generally, the inability of the IMO to take more concrete action to reduce GHG emissions between 1997 and 2018, even at times of immense outside pressure, such as in the lead-up to the climate negotiations in Copenhagen in 2009, can be traced at least in part back to fundamental differences among IMO member States on the respective roles of NMFT and CBDR in designing an emission reduction approach for the sector.\(^{27}\)

By MEPC 71 in 2017, the Committee had before it numerous new submissions by member States and organizations with consultative status, submitted to the Committee directly as well as to the Intersessional Working Group on Greenhouse Gas Emissions Reduction (ISWG-GHG 1). The ISWG-GHG 1 met in June 2017 for intensive discussions on the directions for the strategy and work plan for consideration at MEPC 71. Following consideration of submissions and the ISWG-GHG 1 report, the Committee adopted the latter’s proposals, including the outline proposed for the initial

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\(^{18}\)Paris Agreement (n 2) art 14.


\(^{26}\)IMO, ‘Report on the MEPC on its Fifty-sixth Session’ MEPC 56/23 (30 July 2007) 47.

strategy developed at a parallel meeting during MEPC 71. It included the following:

- Preamble/introduction/context including emission scenarios;
- Vision;
- Levels of ambition;
- Guiding principles;
- List of candidate short-, mid- and long-term further measures with possible timelines and their impacts on States;
- Barriers and supportive measures; capacity-building and technical cooperation; R&D;
- Follow-up actions towards the development of the revised strategy;
- Periodic review of the strategy.

The outline, while little more than a provisional table of contents, set the foundation for the Initial IMO Strategy. It provided structure to the subsequent negotiations, a structure that was retained essentially unchanged in the final version of the strategy adopted in 2018.

4 | KEY ELEMENTS OF THE 2018 INITIAL IMO STRATEGY

The IMO deliberations that led to the Initial IMO Strategy took place at MEPC 72 after hard, protracted and divisive negotiations. The agreement was reached under persistent pressure for the IMO to show leadership on this critical issue, not least because of the urgency of the climate crisis, the potential for unilateral European Union (EU) efforts on the same issue and the need to bridge wide differences between major maritime States, while demonstrating sensitivity and responsiveness to the plight of developing countries, most notably small island developing States (SIDS).

The 2018 strategy, which follows the structure previously adopted by the MEPC, is a political declaration rather than a legally binding treaty, and it is a framework document that is light on detail. The focus of the strategy is on medium- and long-term targets to reduce GHG emission intensity, to reduce absolute emissions and to eventually decarbonize the sector. This is combined with some concrete steps and expectations for the period 2018–2023, following which the strategy will be ‘revised’. The strategy was adopted by 100 member States at MEPC 72, which is evidence of substantial support, but it should be borne in mind that the IMO has 174 member States representing 97.21 percent of global shipping tonnage.

The support to date has not been universal, and it remains to be seen whether either the quite limited opposition or the broader failure to date to actively support the strategy will undermine its effective implementation. The absence of consensus does not affect the application of the strategy to all members States, as the IMO can adopt decisions by majority. However, the nature of the strategy itself, as a political declaration and as a high-level document that will depend on the cooperation of member States for effective implementation, means that the lack of consensus may cast a shadow over the implementation of the strategy. Given that the strategy largely sets collective targets rather than individual obligations, its aims can only be met through effective future collaboration and cooperation among member States.

In addition to the need to bring on board States that have not participated actively and have not voiced their views on the strategy, the cooperation of a critical mass of the reluctant States, representing large markets or industry sectors, such as Brazil, China, India, Panama, Saudi Arabia and the United States, will be important. Saudi Arabia has become perhaps the most vocal critic of the 2018 strategy, taking the extraordinary step of voicing its concern in the Bonn climate negotiations immediately following the conclusion of the IMO negotiations.

The broader context within which the strategy will have to operate is clearly acknowledged through reference to the UNFCCC, LOSC and the UN Sustainable Development Goals. In addition, the objectives and guiding principles of the strategy highlight the need to reconcile the principles of NMFT for industry actors (including compliance by all actors regardless of flag) with the need to consider the impact of the implementation of the strategy on developing States, particularly least developed countries (LDCs) and SIDS, through the application of CBDR. Additional principles referenced include the need for evidence-based decision making, while taking a precautionary approach in the face of uncertainty. The strategy’s vision is phrased as a generic commitment to reducing GHG emissions from international shipping and, ‘as a matter of urgency, aims to phase them out as soon as possible in this century. There is disagreement on the pace of decarbonization required, but agreement on the need to eventually fully decarbonize represents an important milestone against which the implementation of the strategy can be measured.

The IMO strategy’s vision sets the overall goal of full decarbonization, supported by levels of ambition in terms of intensity targets and emission reductions for 2030 and 2050, largely tied to technological innovation, operational measures (such as speed reduction)
and fuel switching to low- or zero-carbon sources of energy. The benchmarks toward decarbonization are threefold and all appear to use 2008 as the baseline year.

(i) The ship’s carbon intensity is to decline in response to successive phases of the existing tiered energy efficiency design index (EEDI) applicable to new ships as set out in Annex VI of the International Convention for the Prevention of Pollution from Ships, 1973/78. Applying to individual ship types, the EEDI anticipates periodical scaling up of efficiency standards. This benchmark essentially restates what had already been in place since 2011, though further enhancements are possible.34

(ii) The industry’s carbon intensity is to decline by a minimum of 40 percent by 2030 while pursuing efforts towards a 70 percent reduction by 2050. Although the bulk of international shipping is involved in the carriage of goods and passengers, it is not clear to what extent this goal will include ships engaged in non-transportation work, for example towboats and other vessels providing services to ships.

(iii) Absolute GHG emissions from international shipping are to peak and decline as soon as possible to reduce the total annual GHG emissions by at least 50 percent by 2050 while pursuing efforts to phase them out completely within time frames consistent with the Paris Agreement goal.

The strategy proceeds to identify an initial number of concrete actions to achieve these benchmarks. It does so through a framework for short-, medium- and long-term measures, and a process to ascertain impacts of specific measures on States and to review efforts and the strategy itself. For the short term (2018–2023), the focus is on the implementation and possible enhancement of the EEDI and SEEMP.35 This is to be complemented with measures to improve the technical and operational efficiency of ships, an existing fleet improvement programme, measures to address methane emissions and volatile organic compounds, enhancement of national efforts, including port efforts, R&D into zero emission technology and incentives for first movers.36

The operationalization of the mandatory fuel consumption data system will play an important role in determining emission levels more precisely as well as providing an empirical basis for reviewing the EEDI.37 There will be other short-term measures, such as speed management and other operational measures. However, while implementable in relatively short order, these measures are expected to have a modest impact on the long-term decarbonization effort and will need to be assessed for their overall effect, especially on safe navigation and on particular economic sectors of developing countries such as agricultural exports. Speed management poses various challenges such as the optimal cruising speed design of the various classes of ships, carriage of agricultural product, commercial considerations for just in time delivery, transparency and so on. Other important short-term measures will include activities for R&D, and incentives for first movers to develop and adopt new technologies. At the most recent MEPC 73 in November 2018, IMO member States were invited to submit proposals for short-term measures to be considered at MEPC 74 in April 2019.38

Most of the measures adopted for the short term are expected to be carried forward into the medium term (2023–2030). Additional medium-term measures will include a programme for the effective uptake of alternative low-carbon and zero-carbon fuels and the opportunity to consider whether a market-based measure, such as a carbon levy or a cap-and-trade system, is needed and realistic. The long-term measures (after 2030), which, subject to technological developments, will likely include a continuation and further scaling up of prior measures, are expected to set the path to the 50 percent reduction by 2050 and the eventual full decarbonization of the sector.

The strategy anticipates the need to overcome barriers and introduce supportive measures, especially on capacity-building, technical cooperation and R&D. The IMO already has a technical assistance programme designed to enhance the uptake of energy efficiency through the Global Maritime Energy Efficiency Partnerships Project (GloMEEP Project), supported by the Global Environment Facility and the United Nations Development Programme. It also cooperates with the EU to administer the Maritime Technology Cooperation Centres in Africa, Asia, the Caribbean, Latin America and the Pacific, also dedicated to maritime energy efficiency and low-carbon transport. Although these are clearly important initiatives, much more will be needed to address the needs of the large number of developing States whose economies depend on marine transportation for export purposes.

5 | ASSESSMENT OF THE INITIAL IMO STRATEGY

In this section, we assess the IMO Strategy in the light of three key questions:

36 See IMO, ‘2014 Guidelines on Survey and Certification of the Design Index (EEDI)’ MEPC.1/Circ.855/Rev.1 (8 October 2015). The EEDI measures were in force prior to the adoption of the IMO Strategy. The EEDI is one of the IMO’s existing efforts to reduce emissions in the sector. The focus of the EEDI is on improved ship design to reduce energy consumption. There is general recognition that further improvements in ship design are possible, and that updates to the EEDI standards constitute an effective short-term measure. However, no concrete changes were included in the Initial IMO Strategy.

37 See IMO, ‘Guidance for the Development of a Ship Energy Efficiency Management Plan (SEEMP)’ MEPC.1/Circ.683 (17 August 2009). The goal of the SEEMP is to reduce energy consumption associated with the operation of vessels through a range of conservation and efficiency measures.

38 Amendments to MARPOL Annex VI (Data Collection System for Fuel Oil Consumption of Ships) (adopted 28 October 2016, entered into force 1 March 2018) MEPC 70/18/Add.1, annex 3. The flag State has the responsibility to monitor, report and issue a statement of compliance to its ships and transfer the reported data to the IMO Ship Fuel Consumption Database.

Are the various 2030 and 2050 targets in the Initial IMO Strategy consistent with the long-term goals of the Paris Agreement?

Does the strategy offer a clear path for its effective implementation and toward meeting the targets set?

Has the strategy been successful or is it likely to be successful in overcoming the long-standing split between developed and developing countries over the respective roles of NMFT and CBDR in the effort to decarbonize the sector?

5.1 Long-term climate goals

As we consider the substance of the Initial IMO Strategy, starting with its 2030 and 2050 targets, it is important to reflect on the significance of the legal status of the overall strategy and the targets. As mentioned earlier, the strategy as a whole is a political declaration rather than a legally binding document, so none of its targets, commitments or obligations are binding on States or industry actors. This means that the impact of the strategy will have to be measured significantly in light of the actions the IMO and its member States can be expected to take to implement the strategy rather than just on the aspirational targets it contains.

There was some debate in the lead-up to the strategy on whether any emission reduction targets agreed to should be binding or not. A fair expectation might have been that the targets would either be binding and based on what can clearly be achieved, or be aspirational and be based on an assessment of what would represent a fair contribution to the global effort under the Paris Agreement. Some of the proposed short-term measures, such as the EEDI and SEEMP, are already stipulated in the legally binding MARPOL Annex VI, and the expectation is that these will be expanded to include more categories of ships; but others, such as speed measures, are unlikely candidates for future prescription, but may well be proposed as recommended measures. The extent to which measures under the strategy are incorporated into prescriptive instruments will be an important indication of the effective supporting action the IMO and its member States are willing to take to implement the strategy to meet its goals and objectives as well as the targets themselves. At the same time, recommended measures have long been employed side-by-side maritime regulation, as is the case with several codes under the 1974 International Convention for the Safety of Life at Sea35 and the International Convention for the Prevention of Pollution from Ships (MARPOL).40

The 2030 and 2050 intensity and absolute emission reduction targets in the Initial IMO Strategy appear to be based on what the member States of the IMO currently consider to be feasible. There is certainly no indication that they are based on an objective assessment of what would be a fair contribution to the global effort, rather than on pragmatic and political considerations. It is hard to see how full decarbonization well after 2050 can be considered a fair contribution to the long-term goals of the Paris Agreement, which ultimately calls for efforts to keep global average temperature increases to within 1.5°C of pre-industrial levels. In light of the inherently global nature of the shipping industry, fairness ought to be determined in alignment with the average global effort required by these long-term goals.41 The whole of the Initial IMO Strategy is non-binding, including its targets, so it is disappointing that these targets appear to be based on what seems ‘achievable’ rather than on what would constitute a ‘fair contribution’. The result is that a clear target for the sector is still missing, and the targets agreed to will have to be revised in the future. This is a notable departure from the approach in the Paris Agreement, which sets clear and ambitious collective targets along with individual commitments and actions that will have to be revised over time to bridge the ambition gap between individual commitments and the collective goal. No revision to the collective goal is anticipated under the Paris Agreement.

The targets in the Initial IMO Strategy, while clearly not a fair contribution to the long-term goals of the Paris Agreement, are nevertheless significant, especially considering the complexity of this global and transnational industry. The language of decarbonization as soon as possible is particularly encouraging, and provides much-needed clarity on the ultimate goal. What is insufficient is the pace of decarbonization between now and 2050, and the overall timeline the 2050 goals suggest for full decarbonization, especially in light of reports that indicate full decarbonization is technically feasible before 2050 and the dire warnings of the latest Intergovernmental Panel on Climate Change (IPCC) report on 1.5°C. A study produced by the Organisation for Economic Co-operation and Development (OECD) in early 2018 concluded that shipping could essentially decarbonize by 2035.42

Prior to the April 2018 MEPC meeting, the EU and several Pacific island States had advocated for a 70–100 percent reduction by 2050. Although 50 percent by 2050 is significantly lower, it is nonetheless the most far-reaching ambition in the strategy. Periodical reviews could increase the level of ambition, though it is not clear whether the focus of reviews is intended to include the level of ambition or rather limited to efforts to meet the current goals. Much of the strategy is framed in terms of ‘best endeavours’ rather than firm commitments, leaving the further adoption or enhancement of actual


41Chircop et al (n 6) 68–71. While the Paris Agreement talks about GHG neutrality in the second half of the century, this could not have been based on detailed analysis on 1.5°C, as such an analysis was not available until the IPCC’s 1.5°C report in 2018. See also M Traut et al, ‘CO₂ Abatement Goals for International Shipping’ (2018) 18 Climate Policy 1066; and RB Gibson et al, ‘From Paris to Projects: Clarifying the Implications of Canada’s Climate Change Mitigation Commitments for the Planning and Assessment of Projects and Strategic Undertakings’ (Metcalf Charitable Foundation 2018).

42OECD and International Transport Forum, ‘Decarbonising Maritime Transport: Pathways to Zero-carbon Shipping by 2035’ (OECD 2018). The paper offers current baseline emissions scenarios along with an overview of state-of-the-art mitigation measures, an exploration of the interaction of these measures and conditions under which measures can be implemented toward full decarbonization. The focus is on the technical feasibility of full decarbonization by 2035. See also T Smith et al, ‘CO₂ Emissions from International Shipping: Possible Reduction Targets and their Associated Pathways’ (UMAS 2016); and Smith et al (n 4).
regulatory tools to further consideration by future MEPC meetings, as it populates the initial strategy, as well as upgrades to the EEDI.

The IPCC 1.5°C report, in combination with the outcomes of the 2018 Talanoa Dialogue under the UN climate regime, should provide a basis for reconsideration of the adequacy of the overall targets and perhaps a harder look at the measures in time for the revised strategy in 2023. An aspirational full decarbonization goal in combination with binding shorter-term steps would perhaps offer the best combination of short-term certainty in light of what is practical and a clear signal about the long-term ambition needed from the sector. It will be vital for the strategy to be responsive and adaptive to the changing understanding of the nature of the GHG reduction challenge and increasing urgency to decarbonize.

5.2 | Implementation

Having considered the adequacy of the 2030 and 2050 targets expressed in the strategy, we now turn to the path to implementation. The strategy in its current form is short on concrete measures to meet the 2030 and 2050 targets. This is not surprising given the state of the negotiations leading up to the April session, and the divisive nature of the negotiations. There was progress at the recent MEPC 73 in 2018, but much of the hard work to ensure the targets are met remains. The direction is clear, but the devil is in the detail. At MEPC 73, a programme of initial follow-up actions was agreed to and States were invited to submit detailed proposals.

Full decarbonization will require a combination of improvements in technical and operational efficiencies and fuel switching. The basic mechanism to continue to improve energy efficiency of vessels is in place in the form of the EEDI, but the strategy does not yet include concrete measures to enhance the EEDI and expand it to include more categories of ships and, more critically, there are no concrete measures as carrots to incentivize fuel switching to non-carbon-based fuels.

For an industry that operates on long-term investment cycles, the three-stage approach of short-, medium- and long-term actions is vital. However, the inadequacy of the long-term goal and the lack of concrete measures at this time, may offer less certainty than necessary to ensure appropriate investment decisions are made to facilitate the full decarbonization of the sector. Nevertheless, there is hope that the strategy is clear enough about the need for full decarbonization that it can help incentivize the development and commercialization of the technologies needed to reach this goal.

Ultimately, the conclusion on the second question is that the Initial IMO Strategy lacks the specific measures to ensure a smooth path to implementation of its targets. However, it had been clear for some time that the detail to ensure effective implementation would not be ready in time for the deadline for adoption of the strategy, and that the effectiveness of its implementation would only become clear in the years following its adoption. The concrete measures the IMO is expected to adopt in the next two to three years in the process of revising the Initial IMO Strategy and adopting the Revised Strategy in 2023 will offer a better basis for assessing the path to implementation.

5.3 | Differentiation

This leaves the third question we posed at the beginning of this section. The respective roles of NMFT and CBDR have been the source of strong disagreement in the IMO negotiations for some time, and were the reason member States did not unanimously support the nine principles adopted at MEPC 57.

As explored in the previous section, the approach in the strategy is to highlight the need to reconcile the principles of NMFT for industry actors (including compliance by all actors regardless of flag) with the need to consider the impact of the implementation of the strategy on developing States, particularly LDCs and SIDS, through the application of CBDR. This would appear a sensible approach. While only 100 of the 170 member States have supported the adoption of the Initial IMO Strategy, it remains to be seen whether the Revised Strategy in 2023 will garner more support. More importantly, it is clear that some developing countries remain reluctant, and a few openly oppose the strategy because it is in their view not adequately based on CBDR and does not provide compensatory mechanisms, for example for SIDS that stand to lose most.

It is clear, therefore, that the answer to the first part of the question is ‘no’. While many developing member States have supported the strategy, others have not, and a few are openly opposed. It is more difficult, at this early stage, to answer the second part of the question, as it will...
depend on the content of the 2023 Revised Strategy and whether further progress is possible during the implementation phase. Well over a decade of negotiations were unable to resolve the split over the respective roles of NMFT and CBDR in the IMO’s work on decarbonizing the international shipping sector. By adopting the strategy over the objection of those who continue to hold on to the view that CBDR should trump NMFT and should apply to private industry actors in developing member States, the rest of the world has sent an important signal. The signal is that there is a compromise position in the form of a strategy that works for most developed and developing member States, and that at least 100 States were not willing to continue to delay action on GHG emissions from international shipping in a perhaps futile effort to try to bring on board the few remaining States who seem unwilling to compromise. It appears that only a small portion of the remaining 70 member States are openly opposed. Only time will tell whether the coalition of member States supportive of the approach reflected in the Initial IMO Strategy will be able to bring on board the remaining member States at the critical implementation stage in the coming years.

While the strategy reflects the IMO’s commitment to mitigation as a matter of urgency, it adopts a cautious, pragmatic and gradual approach to the decarbonization of the industry. The strategy does not contain new binding measures, so it remains to be seen what actual impact it will have on the decarbonization of the international shipping sector. It is hoped that fully implemented and enhanced over time, it will mark an important turning point in the decarbonization effort.

The past difficulties in achieving consensus on this issue within the IMO is a reason for concern. Finding a way to overcome the resistance from key IMO member States will be important. Member States may be tempted to overcome this resistance to the consensus by watering down the ambition of the IMO’s efforts to reduce emissions. Such an approach could hide rather than resolve the fairness issues that are driving the resistance from some key developing countries. Rather, IMO member States will have to tackle the fairness issue head-on and make fairness and ambition conditional on each other. In the process, the position of member States who are using the fairness argument to try to undermine the ambition of the strategy will have to be exposed.

6 | OPPORTUNITIES FOR FUTURE ACTION UNDER THE PARIS AGREEMENT

The focus for now is clearly on the IMO to both implement its initial strategy and to find ways to convince its member States to increase the ambition of the collective effort to ensure international shipping makes a fair contribution to the global effort to achieve the goals of the Paris Agreement. Of course, the relationship between the IMO and the UN climate regime remains complex and subject to change at any time. While a detailed analysis of the role of the UN climate regime is beyond the scope of this article, some understanding of the potential role of the UN climate regime nevertheless provides important context for the work of the IMO in implementing and revising its strategy going forward.

In this section, we therefore briefly consider what avenues there are in the Paris Agreement for the UN climate regime to become more actively involved in efforts to reduce emissions from international shipping. Unlike the Kyoto Protocol, with its focus on the emissions of developed country (Annex I) parties, the overall focus of the Paris Agreement is on global emissions and a global temperature goal of well below 2°C while striving for 1.5°C. Article 4(1) of the Paris Agreement refers to all emissions, and does not exclude emissions from international shipping. Article 4(4) refers to developed countries ‘undertaking economy-wide absolute emission reduction targets’.

The expectation is that the global stocktake under Article 14 (including the scientific input the process will receive from the IPCC) will include emissions from international shipping. In addition, the issue remains on the agenda of the SBSTA, the subsidiary body of the UN climate regime mandated to provide information and advice on scientific and technological matters. In theory, this provides the possibility, if efforts under the IMO in populating the strategy with a range of measures fail to provide an adequate response, of revisiting, and taking a decision on the five options identified by the SBSTA in the lead-up to Kyoto, and thereby clarifying and standardizing the allocation of emissions from international shipping to parties. This would, however, require the same States that adopt measures considered inadequate or who could not agree through the IMO, to agree to consider the matter outside the IMO. Parties to a convention are sovereign and pacta sunt servanda.

Article 6, dealing with market and non-market mechanisms, could potentially provide avenues for measures under the Paris Agreement to address emissions from international shipping. While the rules for the implementation of Article 6 have not yet been finalized, the basic purpose of Article 6 is to allow parties to cooperate in achieving emission reductions through a broad range of approaches. Until the implementation rules for Article 6 are finalized, it is difficult to predict exactly what avenues there might be to utilize Article 6 to support IMO efforts, but options include possible cooperation on a market mechanism or a levy on GHG emissions from international shipping.

Ultimately, at a minimum, as part of the five-yearly global stocktake starting in 2023, parties will expect to receive reports on emissions from international shipping as part of the overall exercise to determine progress toward the temperature goal. In a scenario where most parties are meeting or exceeding their individual mitigation commitments, but the collective effort continues to fall short due in part to insufficient efforts to reduce emissions from international shipping, the political pressure for the UN climate regime, or parties thereto, to take charge of these emissions will be immense.

A critical element in ensuring the international shipping sector will do its part will be full transparency. The global stocktake under

48Paris Agreement (n 2) art 4(4).
49Ibid art 6. The potential under Article 6 of the Paris Agreement is, of course, not limited to situations where the parties to the UN climate regime conclude that efforts by the IMO are inadequate. There is every opportunity for a cooperative approach, certainly with respect to market-based mechanisms under Article 6, technological development and transfer under Article 10, transparency under Article 13 and the global stocktake under Article 14. A detailed analysis of these opportunities is beyond the scope of this article. The point here is that cooperation is worth exploring.
the Paris Agreement will play a critical role in ensuring this transparency. One option would be for the member States acting through the IMO, or parties to the Paris Agreement as part of their NDC submissions, to take the initiative to report on emissions from the sector as part of the global stocktake. To date, the IMO has reported to the SBSTA through periodic reports on GHG emissions and actions taken to address GHG emissions. As important will be reporting on efforts and targets going forward, and consistency of methodologies for estimating and reporting on emissions from shipping between the IMO and the UNFCCC.

It will also be important to ensure that accurate and consistent information about emissions trajectories from the sector are available within the global stocktake. This should then lead to an assessment of what approaches have been implemented, which efforts have been effective and which have not. This will allow parties to the UN climate regime to determine, in the context of the global stocktake, whether adequate efforts are being made outside the climate regime, and whether there is a need to take additional measures either in coordination with the IMO or unilaterally. Since parties to the climate regime and IMO member States are largely the same actors, consistency should be expected, though this has not always been the case in the past.

As discussions on sources of funding for climate change mitigation, adaptation and loss and damage continue under the UN climate regime, the idea of imposing a levy on emissions from international transport is likely to continue to resurface in the climate negotiations. Such pressure can be pre-empted by the IMO if it is able to demonstrate effective efforts to decarbonize the sector. Alternatively, the IMO could design its own levy system to support technology breakthroughs and emission reductions within the sector.

While the focus has now clearly shifted to the IMO, the effort to influence the control and eventual elimination of GHG emissions from international shipping and aviation from within the UN climate regime is far from over. Full transparency during the global stocktake will be critical to ensure the sector contributes its fair share to the global effort. Since most States are parties to the climate, law of the sea and maritime regimes, they would benefit from exploring opportunities for consistency and cooperation, including the possibility to use institutions and instruments under the Paris Agreement for market mechanisms, finance and technology to help with speedy and effective implementation of measures negotiated under the IMO process.

In the short and medium term, until technology breakthroughs toward a clear zero-emissions path become economically viable, the sector will need to take further efficiency measures and further measures to incentivize and accelerate the development and commercialization of technology breakthroughs, if it is to make a fair contribution to the global effort. A controversial option would be to set up a carbon levy to fund emission reductions outside the international shipping sector in some form. In the long term, the science is clear that meeting the temperature goal set in Paris will require a ‘balance of emissions and removals,’ and very likely significant net negative emissions, making anything short of a zero-emissions solution for these sectors untenable.

7 | CONCLUSION

The preliminary reactions to the Initial IMO Strategy from the IMO itself, and from member States, industry bodies, environmental NGOs and external stakeholders and observers have been reasonably positive, with some hailing it as a landmark achievement and others expressing more cautious optimism. It may also reflect that the long-term goal, while not adequate, is significant and ambitious for a global industry, leaving more room for optimism that the strategy marks an important turning point toward the decarbonization of the sector.

The IMO and the international shipping industry may be breathing a temporary sigh of relief, but both will have to maintain and build on the momentum during the next stage of the strategy by 2023, by turning it into an effective revised ‘Comprehensive IMO Strategy on Reduction of GHG Emissions from Ships’, populated with realistic and concrete measures toward the ultimate goal of decarbonization as soon as possible. The IMO will have to maintain a credible process and the good will to enable the strategy to deliver on the compromises made in the Initial IMO Strategy and overcome its limitations and catch up with the goals of the Paris Agreement.

The following will be key to the successful implementation of the 2018 IMO Strategy:

- An effective mix of prescriptive and goal-based regulatory tools, financial incentives, and compliance and enforcement tools to ensure emission reduction opportunities that are currently viable are implemented immediately, additional opportunities to reduce emissions are created through innovation and are implemented as they become viable;

50 The provision for sharing of proceeds under Article 6 for international transfers of emissions obligations provides a sound basis for implementing such a levy under Article 6.

51 Chircop et al (n 6) 57–59.

52 Paris Agreement (n 2) art 4(1).


• Effective economic, regulatory and first-movers’ incentives need to be created to motivate industry actors to reduce emissions through a combination of improved efficiency of ships, operational measures and fuel switching;

• An urgent and serious effort is needed to understand and address the implications of full decarbonization for the LDCs and SIDS, while preserving the NMFT status for industry actors;

• Serious efforts are needed to design and implement an effective carbon pricing mechanism, as it has the greatest potential to combine creating adequate incentives to reduce emissions with the ability to address legitimate equity concerns of LDCs and SIDS, and the ability to incentivize innovations that will lead to the technology innovations needed to ensure the full decarbonization of the sector;

• A commitment to enhance ambition over time to bring it in line with Paris Agreement climate goals and in light of the IPPC 1.5°C report.56

This will not be an easy process, in part because the current support for the strategy reflects the state of understanding of climate change, technological and economic uncertainties, and the response needed based on the 2015 IPCC Fifth Assessment Report. The 2018 IPCC 1.5°C report, released after the Initial IMO Strategy was developed, already portrays a much grimmer picture and highlights the inadequacy of current national commitments and efforts under the Paris Agreement, let alone the IMO Strategy. At the time of writing, the IMO has commissioned a fourth GHG study and the hope is that it provides a more detailed and realistic picture for the next steps for the IMO Strategy. In the meantime, the message from the IPCC is clear. What is required is nothing short of the best efforts of the shipping sector to decarbonize as quickly as possible. The implementation of the revised strategy will involve difficult choices.