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THE LEGALITY OF REVENUE DISBURSEMENT FROM AN ECONOMIC MEASURE AGREED AT THE INTERNATIONAL MARITIME ORGANIZATION FOR PURPOSES OTHER THAN THE DECARBONISATION OF INTERNATIONAL SHIPPING.

BLÁNAID SHEERAN

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This analysis fills a gap in the existing legal literature on the adoption of a greenhouse gas (GHG) pricing mechanism at the International Maritime Organization (IMO or Organization). First, it investigates whether the adoption of a GHG pricing mechanism which includes the potential use of funds for purposes aside from the decarbonisation of international shipping is within the general competence of the IMO. Providing an affirmative interpretation, it then considers the adoption of such a measure as an amendment to Annex VI of the International Convention for the Prevention of Pollution from Ships (MARPOL). The analysis concludes that a broad interpretation of MARPOL is permissible and that, subject to political will, the legal basis for a GHG pricing mechanism which includes the potential for funds to be disbursed for purposes other than the decarbonisation of international shipping could be included within MARPOL. Furthermore, the analysis indicates that scenarios in which funds are disbursed outside of the international shipping sector, in conjunction with funding used within the sector, better place Member States to fulfil the objectives of the 1948 Convention of the International Maritime Organization (IMO Convention) as well as other relevant rules of international law, such as the United Nations Convention on the Law of the Sea (UNCLOS).

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Opportunity Green is an NGO working to unlock the opportunities from tackling climate change using law, economics, and policy. It aims to amplify diverse voices, forge ambitious collaborations and use legal innovation to motivate decision makers and achieve climate justice, with particular emphasis on the aviation and shipping industries.

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EXECUTIVE SUMMARY

Member States of the International Maritime Organization (IMO or the Organization) are currently discussing the adoption of an economic element, namely some form of greenhouse gas (GHG) pricing mechanism, as part of a basket of mid-term GHG emissions reductions measures to be adopted in 2025. The forms of GHG pricing mechanism under discussion all involve some form of revenue generation. Stakeholders have proposed a variety of potential uses for these revenues, including reinvestment into the decarbonisation of the international shipping sector, support for a just and equitable transition for developing countries and broader environmental objectives.

The legal basis for the mid-term measures, including the GHG pricing mechanism, is intended to be enshrined within the IMO's legal framework by amendment of an existing international treaty, namely the International Convention for the Prevention of Pollution from Ships (MARPOL). Noting the limited availability of relevant legal analysis, this paper responds to queries raised regarding the legal permissibility of distributing revenue from a GHG pricing mechanism agreed at the IMO, for purposes other than international shipping decarbonisation, both in terms of the IMO's general legal capacity to adopt such a measure and its inclusion in MARPOL.

The analysis concludes that it is legally permissible to adopt a GHG pricing mechanism which includes consideration for the use of funds outside of those purposes directly related to international shipping decarbonisation, as an amendment to Annex VI of MARPOL. It also considers scenarios in which the distribution of funds outside of sector, in addition to funding within the sector, better places Member States to fulfil the objectives of the 1948 Convention of the International Maritime Organization (IMO Convention), MARPOL Convention, and relevant rules of international law, when compared to a scenario in which funds are reserved exclusively for international shipping decarbonisation purposes.

KEY TAKEAWAYS FOR POLICY MAKERS RELATING TO THE IMO'S REMIT WITH REGARDS TO A GHG PRICING MECHANISM AND DISTRIBUTION OF ITS REVENUES

Basis for competency under the IMO Convention: Article 1(a) of the IMO Convention provides for the general purposes of the IMO. A comprehensive analysis suggests that Member States of the IMO retain broad discretion in policy choice regarding use of revenues.

- If it is assumed that the core function of a GHG pricing mechanism is the prevention and control of marine pollution from ships, then secondary decisions related to the issue of revenue distribution, which could also be described as a related administrative matter, need not be restricted.
- To compliment the above, it could also be argued that strategic uses of revenue outside of the international shipping sector can encourage or facilitate 'the highest practicable standards' in matters concerning the prevention and control of marine pollution from ships. To align with a recent Advisory Opinion from the International Tribunal for the Law of the Sea (ITLOS Advisory Opinion), the evaluation of what is necessary to encourage and facilitate 'the highest practicable standards' of marine pollution prevention and control from ships should include:
 - The best available science;
 - International climate agreements, including the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement; and,
 - The 1.5°C temperature limit.

Legal considerations for the amendment of MARPOL Annex VI: The paper supports the legality of the adoption of the measure within MARPOL’s Annex VI, should the political will exist. Article 16 of MARPOL requires that amendments ‘shall relate to the substance of that Protocol or Annex and shall be consistent with the articles of the present Convention [MARPOL].’ Therefore, an amendment to include a GHG pricing mechanism which is primarily aimed at reducing GHG emissions from ships and may, by consequence of its revenue generating potential, allow for revenues to be distributed for certain purposes not exclusively related to international shipping decarbonisation, can be considered legally permissible subject to the requirement that the amendment in general relates to the substance of Annex VI and is consistent with the articles of MARPOL.

The analysis in this paper suggests that these requirements can be met, in particular, because:

- The primary purpose of all proposed GHG pricing mechanisms under discussion at the IMO is GHG emissions reductions from shipping, irrespective of the revenue usage scenarios proposed by stakeholders. The revenue generating function of the proposed measures is secondary to the primary purpose but nonetheless, as discussed in this paper, may also contribute to emissions reductions from shipping.
- Revenue distribution scenarios which include some form of revenue usage for purposes not directly related to international shipping decarbonisation may better facilitate the achievement of the ‘highest practicable standards’ in matters concerning the prevention and control of marine pollution from ships, supporting the objectives of the IMO and consistent with the articles of MARPOL.
- Expanded below, disbursement of revenues for purposes other than international shipping decarbonisation will also aid consistency between the IMO legal regime and relevant rules of international law, reflecting the international legal principle of systemic integration.

Additional considerations to aid consistency with international law and IMO policies and practices: The principles of international treaty interpretation require that the IMO legal framework (including both the IMO Convention and MARPOL) be read in light of relevant rules of international law, such as United Nations Convention on the Law of the Sea (UNCLOS), as well as the broader context of IMO policies and practices on the reduction of GHG emissions from ships. To ensure consistency between legal regimes and with IMO policies and practices, when considering the design and implementation of a GHG pricing mechanism, Member States should consider:

Consistency with UNCLOS:

- As clarified by the ITLOS Advisory Opinion, UNCLOS requires funds to be prioritised for developing and least developed States, in particular SIDS and LDCs, most affected by GHG emissions’ impact on the marine environment. This need not, however, prevent disbursement of funds to other States.
- At a minimum, also clarified by the ITLOS Advisory Opinion, UNCLOS requires that financial assistance is at least made available for purposes which aid the protection and preservation of the marine environment and the prevention, reduction and control of marine pollution. This, however, does not prevent the extension of revenue distribution to other purposes. This suggests that the distribution of revenues from a GHG pricing mechanism at the IMO should not be limited to the decarbonisation of international shipping.

Consistency with IMO policies and practices:

- The 2023 IMO Strategy on Reduction of GHG Emissions from Ships states the IMO’s commitment to achieving effective emissions reductions from international shipping, promoting the energy transition of the sector and prioritising a just and equitable transition.

- The way in which revenues from a GHG pricing mechanism are used will be instrumental in supporting a just and equitable transition, both in terms of who receives funds and for what they are prioritised.
 - Developing countries are often more vulnerable to climate risks, have less capacity to address them, and have historically contributed less to climate change than many developed countries.
 - Spending carbon revenues exclusively on international shipping or maritime transport will limit some developing countries' access to carbon revenues. Some developing countries, including many small island developing states (SIDS) and least developed countries (LDCs), as well as landlocked developing countries, may have limited opportunities to spend revenues in those sectors. Therefore, using revenues exclusively for international shipping or maritime transport-related spending appears at odds with an equitable transition.

1. INTRODUCTION

Member States of the International Maritime Organization (IMO or Organization) are currently discussing the adoption of a greenhouse gas (GHG) pricing mechanism as part of a basket of mid-term GHG emissions reductions measures to be adopted by the Organization in 2025, with entry into force in 2027. An effective economic measure in the form of a GHG pricing mechanism, to be paired with a technical fuel standard, could be used to reduce GHG emissions from ships, with the generation of revenues as a byproduct. Member States are working to find an agreement on the operational form that a GHG pricing measure could take. A number of distinct proposals have been put forward by Member States and Observers to the Organization, including, for example, a levy on international shipping's GHG emissions, a feebate mechanism, or other. Once Member States come to an agreement on the measures' design, they will be incorporated into an existing international treaty, the International Convention for the Prevention of Pollution from Ships (MARPOL), which could be amended to include a proposed new Chapter 5 of MARPOL Annex VI containing regulations on a potential 'IMO net-zero framework'.

All the forms of GHG pricing mechanism under discussion at the IMO include some form of revenue generation. World Bank analysis estimated that a market-based measure in international shipping could raise between \$1 trillion and \$3.7 trillion by 2050, equating to an annual average of \$40 billion to \$60 billion between 2025 and 2050.¹ The distribution and use of these revenues is therefore an important element to consider. Some suggest that it is appropriate to use all revenues for the decarbonisation of international shipping. Others argue that a portion of revenues could also be used for purposes that do not directly relate to the decarbonisation of the international shipping sector or the broader maritime transport sector. This latter category could include, *inter alia*, uses related to shipping pollution's broader impacts on the environment and its contribution to climate change, for example projects related to climate change mitigation and adaptation in developing States. This kind of spending is sometimes referred to as 'out-of-sector'. However, the term lacks definition and can be misleading;² it is therefore avoided in this paper.

Literature has already clarified that it is within the IMO's legal remit to adopt a GHG pricing mechanism in some form.³ However, as discussions progress, queries have been raised as to the IMO's legal capacity to adopt a mechanism which facilitates revenue distribution for purposes that may go beyond international shipping decarbonisation. Further, some Member States have expressed uncertainty as to whether it is permissible to include the legal basis for such revenue distribution within MARPOL.

This paper contributes to the discourse by analysing the legal compatibility of a GHG pricing mechanism which facilitates revenue disbursement for purposes other than international shipping decarbonisation with the legal framework of the IMO.

¹Goran Dominioni, Isabelle Rojon, Rico Salgmann, Dominik Englert, Cáit Gleeson, and Sotiria Lagouvardou, 'Distributing Carbon Revenues from Shipping' (License: Creative Commons Attribution CC BY 3.0 IGO. World Bank, Washington, DC, 2023). Also submitted to the MEPC's Intersessional Working Group on GHG emissions as: Document ISWG-GHG 16/2/20 (World Bank, 26 January 2024).

² There is no concrete definition for the terms 'in-sector' and 'out-of-sector', and the terms can be considered divisive. There are various potential revenue uses which may not clearly fall within the scope of either category, for example spending related to bunker fuel production has broader use than within the international shipping sector exclusively. This paper does not intend to define the terms or suggest an exhaustive list of potential uses that may fall under either category. Thus, the terms will be used only when required in relation to a document reference.

³ See, Aoife O'Leary and Jennifer Brown, 'The Legal Basis for IMO Climate Measures' (Environmental Defense Fund, Sabin Centre for Climate Change Law, Columbia Law School, June 2018) https://scholarship.law.columbia.edu/sabin_climate_change/79 accessed 01 May 2024.

2. METHODOLOGY

To achieve its aims, this paper will:

- (a) Determine whether the adoption of a GHG pricing mechanism which includes the potential for use of generated funds for purposes aside from international shipping decarbonisation is within the legal ambit of the IMO (Section 3).
- (b) Determine whether a GHG pricing mechanism which includes the potential for use of generated funds for purposes aside from international shipping decarbonisation can be adopted as an amendment to MARPOL Annex VI (Section 4).

The questions posed by this paper require an interpretation of two international treaties: the 1948 Convention of the International Maritime Organization (the IMO Convention),⁴ which determines the ultimate objectives and functions of the IMO, and MARPOL, a specialised international agreement related to the pollution of the marine environment by ships. The rules governing treaty interpretation are codified in Articles 31 to 33 of the Vienna Convention on the Law of Treaties (VCLT)⁵ and inform the methodology for this analysis.

In brief, Article 31(1) VCLT requires that ‘[a] treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose’.⁶ In addition to the treaty’s text, the specified context relates only to agreements and instruments made in connection with the conclusion of the treaty.⁷ However, Article 31(3) requires subsequent agreements and practice in application of the treaty regarding its interpretation to be taken into account together with the context.⁸ If subsequent practice is sufficiently clear, it may even take precedence over otherwise clear wording.⁹ Article 31(3)(c) of the VCLT specifies that account should be taken, together with the context, of any relevant rules of international law applicable in the relations between the parties. Article 32 VCLT provides for recourse to ‘supplementary means of interpretation’, for example to the *travaux préparatoires*, in the case interpretation using the core principles in Article 31 leads to an ambiguous, obscure, unreasonable or manifestly absurd result.

Drawing from these principles, there are four widely accepted interpretative methods:¹⁰

1. **The literal, or textual, approach** requires the ordinary meaning to be given to the terms of the treaty.¹¹
2. **The contextual or systematic approach** entails assessment in light of the treaty as a whole, including Preamble and annexes,¹² as well as other written instruments ‘relating to the treaty’ and made ‘in connection with the conclusion of the treaty’.¹³ The term ‘in connection’ does not have a fixed time-

⁴ The Convention on the International Maritime Organization (adopted 6 March 1948, entered into force 17 March 1958) 289 UNTS 3 (The IMO Convention).

⁵ Vienna Convention on the Law of Treaties (adopted 23 May 1969, entered into force 27 January 1980) 1155 UNTS 331 (VCLT), arts 31 and 32.

⁶ VCLT, art 31.

⁷ VCLT, art 31(2).

⁸ VCLT, art 31(3).

⁹ Anders Henriksen, *International Law* (OUP 2017), 54.

¹⁰ These principles are widely accepted in scholarship and practice. See, among others, Odile Ammam, ‘Chapter 6: The Interpretative Methods of International Law: What Are They, and Why Use Them?’ in Odile Ammam *Domestic Courts and the Interpretation of International Law* (Brill, Nijhoff 2020). See also: Icelandic Human Rights Centre, ‘Interpretation Of Human Rights Treaties’ (Icelandic Human Rights Centre nd) <https://www.humanrights.is/en/human-rights-education-project/human-rights-concepts-ideas-and-fora/part-i-the-concept-of-human-rights/interpretation-of-human-rights-treaties> accessed 03 May 2024.

¹¹ Odile Ammam, ‘Chapter 6: The Interpretative Methods of International Law: What Are They, and Why Use Them?’ in Odile Ammam *Domestic Courts and the Interpretation of International Law* (Brill, Nijhoff 2020). See also: Icelandic Human Rights Centre ‘Interpretation Of Human Rights Treaties’ (Icelandic Human Rights Centre n.d.) <https://www.humanrights.is/en/human-rights-education-project/human-rights-concepts-ideas-and-fora/part-i-the-concept-of-human-rights/interpretation-of-human-rights-treaties> accessed 03 May 2024.

¹² Icelandic Human Rights Centre, ‘Interpretation Of Human Rights Treaties’ (Icelandic Human Rights Centre nd) <https://www.humanrights.is/en/human-rights-education-project/human-rights-concepts-ideas-and-fora/part-i-the-concept-of-human-rights/interpretation-of-human-rights-treaties> accessed 03 May 2024.

¹³ VCLT, art 31(3)(a)(b).

limited meaning.¹⁴ In addition to the immediate context, subsequent agreements or practice regarding interpretation or application should be considered for a contemporaneous interpretation. These can be written or oral agreements but should help to clarify how parties wish to interpret or apply the treaty. According to Ratner, such agreements ‘are given significant, even dispositive, weight because they clearly demonstrate the parties’ contemporaneous understanding of the meaning of a treaty.’¹⁵ Finally, any relevant rules of international law applicable in relations between the parties shall be taken into account along with the context.¹⁶ This ensures, as observed by the International Court of Justice (ICJ), that treaties do not operate in isolation but are ‘interpreted and applied within the framework of the entire legal system prevailing at the time of the interpretation.’¹⁷ Relevant rules of international law could include both rules of treaty law and customary international law.

3. **A purposive or teleological interpretation** considers a treaty’s ‘object and purpose’. There is no clear set of principles to assist in identifying a treaty’s object and purpose, however, the text will often specify the agreement’s purpose, either in the preamble or in an early article. Nonetheless, all provisions should be considered when informing the object and purpose.¹⁸ According to Gardiner, a purposive interpretation includes the principle of effectiveness, whereby an interpretation that advances the aims of the treaty is preferred.¹⁹
4. Finally, **the historical approach** draws on Article 32 VCLT which provides supplementary means of interpretation, for example, the *travaux préparatoires*.²⁰ These may be used to confirm a specific interpretation,²¹ or to avoid manifestly absurd or ambiguous results.²²

The literal, contextual and purposive approaches are used throughout this paper. Due to limitations on time and resources, the historical approach has not been considered a necessary means to confirm the results. This can be considered a limitation to the current research and could be further explored in later literature.

3. ANALYSIS OF THE IMO CONVENTION

Considering the broad remit of the IMO Convention, pre-existing scholarship has established the IMO’s authority to adopt a wide range of potential market-based measures to reduce GHG emissions from ships, including a GHG pricing mechanism.²³ However, to the author’s knowledge, there has been no analysis regarding the capacity of the IMO to adopt a measure that may involve the distribution of funds for purposes not directly linked to international shipping decarbonisation.

¹⁴ Stephen Ratner, ‘International Law Rules on Treaty Interpretation’ in McCrudden C (ed) *The Law and Practice of the Ireland-Northern Ireland Protocol* (Cambridge University Press 2022), 80-91.

¹⁵ Stephen Ratner, ‘International Law Rules on Treaty Interpretation’ in McCrudden C (ed) *The Law and Practice of the Ireland-Northern Ireland Protocol* (Cambridge University Press 2022), 86.

¹⁶ VCLT, art 31(3)(c).

¹⁷ *Legal Consequences for States of the Continued Presence of South Africa in Namibia (South West Africa) notwithstanding Security Council Resolution 276* (Advisory Opinion) (1970) ICJ Reports 1971, 16, para 31.

¹⁸ Kit De Vriese, ‘How to?: A Methodological Guide to Identify a Treaty’s Object and Purpose’ (2022) 21(1) *The Law & Practice of International Courts and Tribunals* <<https://doi.org/10.1163/15718034-12341465>> accessed 03 May 2024, 35-97.

¹⁹ Richard Gardiner, *Treaty Interpretation* (2nd edition, OUP 2015), 221.

²⁰ Odile Ammam, ‘Chapter 6: The Interpretative Methods of International Law: What Are They, and Why Use Them?’ in Odile Ammam *Domestic Courts and the Interpretation of International Law* (Brill, Nijhoff 2020). See also: Icelandic Human Rights Centre, ‘Interpretation Of Human Rights Treaties’ (Icelandic Human Rights Centre nd) <https://www.humanrights.is/en/human-rights-education-project/human-rights-concepts-ideas-and-fora/part-i-the-concept-of-human-rights/interpretation-of-human-rights-treaties> accessed 03 May 2024.

²¹ VCLT, art 32.

²² VCLT, art 32(a)(b).

²³ Hillary Aidun, Daniel J. Metzger & Michael B. Gerrard, ‘Principles of International Law and the Adoption of a Market-Based Mechanism for Greenhouse Gas Emissions from Shipping’ (Faculty Scholarship, Columbia Law School 2021) "[Principles of International Law and the Adoption of a Market-Based Mec](https://www.columbia.edu/~l100/Principles_of_International_Law_and_the_Adoption_of_a_Market-Based_Mec_by_Hillary_Aidun_Daniel_J_Metzger_et_al._(columbia.edu))" by Hillary Aidun, Daniel J. Metzger et al. (columbia.edu) accessed 29 May 2024; Aoife O’Leary and Jennifer Brown, ‘The Legal Basis for IMO Climate Measures’ (Environmental Defense Fund, Sabin Centre for Climate Change Law, Columbia Law School, June 2018) https://scholarship.law.columbia.edu/sabin_climate_change/79 accessed 01 May 2024.

It is therefore useful to consider the IMO's general legal capacity. This will be achieved by completing a textual and contextual analysis of the relevant provisions of the IMO Convention. Notably, a purposive interpretation is not considered. This is because the apparent purpose of the IMO Convention, in accordance with its preambular paragraph, was to establish the IMO (previously Intergovernmental Maritime Consultative Organization) by laying out the provisions for its functioning. The author reasons that a purposive perspective would not provide additional insight into the meaning of Article 1 in the context of this paper.

3.1 TEXTUAL ANALYSIS: THE POWERS AND PURPOSES OF THE IMO

According to Article 2 of the IMO Convention,²⁴ the IMO is empowered to act as it sees fit in relation to matters falling within the remit of its purposes. The Organization's purposes are outlined in Article 1 of the IMO Convention, and include:²⁵

(a) [...] to encourage and facilitate the general adoption of the highest practicable standards in matters concerning the maritime safety, efficiency of navigation and prevention and control of marine pollution from ships; and to deal with administrative and legal matters related to the purposes set out in this Article.

This should be read in conjunction with Article 38(a) of the IMO Convention, which states that the Marine Environment Protection Committee (MEPC) enjoys broad powers to 'consider any matter within the scope of the Organization concerned with the prevention and control of marine pollution from ships [...].'²⁶

Two elements of Article 1 are relevant. First, that the IMO is empowered to act in any way that encourages and facilitates 'the highest practicable standards' in matters concerning the prevention and control of marine pollution from ships. There is no textual limitation on the kinds of actions this may involve. Second, that the IMO is empowered to act on administrative and legal matters that arise by consequence.

APPLICATION TO A GHG PRICING MECHANISM WITH POTENTIAL FOR DISTRIBUTION OF FUNDS ASIDE FROM INTERNATIONAL SHIPPING DECARBONISATION

In the case of the GHG pricing mechanism under discussion, the primary purpose of all proposed pricing mechanisms is the reduction of GHG emissions from international shipping. GHG emissions reductions are understood as a key part of the IMO's pollution prevention agenda, thus contributing to the IMO's purposes. Distribution of revenues from the GHG pricing mechanism, irrespective of the potential uses, is considered a necessary consequence of, or secondary to, this primary purpose. Article 1(a) empowers the IMO to take any action that encourages or empowers a high standard of pollution prevention and control from ships. It does not restrict the considerations that need to be taken as a consequence of an activity that falls within the scope of this article.

It could also be possible to consider the issue of revenue disbursement as an 'administrative' matter. Distribution of revenues from the GHG pricing mechanism(s), irrespective of potential purposes, is a necessary consequence of the operation of any GHG pricing mechanism. This is made clear by the fact that all proposed pricing mechanisms include some form of revenue distribution. The text of Article 1(a) does not place any restriction on the scope or nature of the administrative and legal matters related to the IMO's purposes. Taking a basic

²⁴ Under Article 2 of the IMO Convention, the IMO can consider, make recommendations upon matters arising under and perform functions arising in connection with: 'Article 1 (a), (b) and (c) [...] or upon matters referred to it under Article 1 (d).'

²⁵ The IMO Convention, Article 1.

²⁶ The IMO Convention Article 38.

dictionary definition of the term,²⁷ administrative activities may include those ‘relating to the arrangements and work that is needed to control the operation of a plan or organization.’²⁸

Any decisions related to the spending of revenues can reasonably be understood as relating to the arrangements needed to ensure the operation of the GHG pricing mechanism, i.e., an administrative matter. The allocation of revenues to varied purposes can therefore be dealt with at the discretion of the Member States of the IMO and need not legally be limited to the international shipping sector. By adopting this understanding, the relevant decisions fall within the remit of the IMO, irrespective of the purposes to which revenues may be allocated.

To complement the broad legal basis, it may also be argued that some of the IMO’s activities regarding distribution of revenues further facilitate the ‘highest practicable standards’ of ‘prevention and control of marine pollution from ships’. From a textual analysis alone, it appears easier to assign some uses of revenue to this category than others, for example, providing a financial reward to first movers. However, further analysis using the principles of international treaty interpretation can be used to provide a more complete understanding of what ‘the highest practicable standards’ of pollution prevention and control from ships could involve in the case of revenue distribution. This analysis will also be integral to Section 4 (determining whether a GHG pricing mechanism which includes the potential for use of generated funds for purposes aside from international shipping decarbonisation can be adopted as an amendment to MARPOL Annex VI).

3.2 CONTEXTUAL ANALYSIS: RELEVANT RULES OF INTERNATIONAL LAW

Treaties do not operate in isolation and should be interpreted and applied in a manner that is consistent with the broader international legal framework (this is also referred to as 'systemic integration'). Article 31(3)(c) of the VCLT requires that account be taken of any relevant rules of international law applicable in the relations between the parties. There is a strong general preference in international law for norms to be interpreted in a way which renders them compatible with one another. In other words, when several norms bear on a single issue, they should, to the extent possible, be interpreted to give rise to a single set of compatible obligations.²⁹ Thus, it is important to consider norms external to the IMO legal framework that may be relevant to the issue of revenue distribution.

Relevant rules of international law include rules of treaty and customary international law, applicable between the parties. Several rules and regimes could be considered relevant in the current context, for example certain principles of international environmental law, the international law of the sea, international human rights law or international trade law. For the purposes of this paper, only norms of customary international law were considered for analysis. This is because customary international law binds all States³⁰ and can therefore be understood as applicable between the parties to the IMO Convention. However, the author acknowledges that further analysis of potentially relevant regimes, including those norms which have not crystallised as customary international law but may nonetheless be applicable between the parties to the IMO Convention, would be beneficial for a comprehensive analysis.

Considering the topic of matters concerning the prevention and control of marine pollution, this analysis focuses on the relevant international rules relating to the pollution of the marine environment. These rules can be found in the United Nations Convention on the Law of the Sea (UNCLOS).³¹

²⁷ The author acknowledges that dictionary definitions vary.

²⁸ --' Administrative' (dictionary.cambridge.org, 2024) [ADMINISTRATIVE | English meaning - Cambridge Dictionary](#) last accessed 16 December 2024.

²⁹ Study Group of the International Law Commission, ‘Report on Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law’ (13 April 2006) A/CN.4/L.682, para 4.

³⁰ Except persistent objectors.

³¹ The United Nations Convention on the Law of the Sea (adopted 10 December 1982, entry into force 16 November 1994) 1833 UNTS 3 (UNCLOS).

ANALYSIS OF THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA (UNCLOS)

UNCLOS is a multilateral convention governing relations among countries on various ocean-related issues. It outlines the rights and responsibilities countries have related to the use of the oceans, the seabed and their resources, and the protection of the ocean environment. UNCLOS has near global ratification, with 168 Parties, and an additional 14 State signatories.³² Most of UNCLOS is considered to be a reflection of customary international law,³³ applicable to all States³⁴ whether they are parties to UNCLOS or not. In 1991, the IMO Assembly noted this, reporting that: 'The United Nations Convention on the Law of the Sea (...) with the exception of the seabed mining provisions, is widely accepted as customary international law.'³⁵

Several provisions of UNCLOS are particularly pertinent to a contextual interpretation of Article 1(a) of the IMO Convention. A recent Advisory Opinion from the International Tribunal for the Law of the Sea (ITLOS Advisory Opinion) has provided clarity on the appropriate interpretation of several relevant UNCLOS provisions and identified a number of obligations for States in the context of climate change.³⁶ As an independent judicial body with jurisdiction over any dispute concerning the interpretation or application of UNCLOS, ITLOS's interpretation is highly important for an accurate understanding of the requirements of UNCLOS and is therefore referenced throughout.

With regards to a GHG pricing mechanism placed on international shipping, the following provisions of UNCLOS may be relevant:

1. **Article 194 UNCLOS:**³⁷ Under article 194(1) and (2), States have the specific obligations to take all necessary measures to prevent, reduce and control marine pollution. The ITLOS Advisory Opinion provided further detail on the substance of States obligations under this provision. This included:
 - a. **The stringency of due diligence in the case of anthropogenic GHG emissions, including those from vessels:** As confirmed in the ITLOS Advisory Opinion, UNCLOS, Article 194(1) requires States to take all 'necessary' measures to 'prevent, reduce and control pollution of the marine environment', which includes from anthropogenic GHG emissions,³⁸ from 'any source', including vessels. Article 194(1) provides a stringent standard of due diligence for States, given the high risk of serious and irreversible harm to the marine environment. Where there is a risk of transboundary pollution affecting the environment of other States, the standard under Article 194(2) 'can be even more stringent.'³⁹ As international shipping is a source of transboundary pollution, this increases the stringency of the measures that should be adopted to meet the standard of due diligence for States with regards to international shipping's GHG emissions.

³² A full list of Parties can be found at: [UNCLOS: United Nations Convention on the Law of the Sea](#).

³³ It is accepted that UNCLOS has largely codified the preexisting customary law of the sea. The status of UNCLOS as a reflection of customary international law is widely accepted in scholarship and practice. See, for example: 'United Nations Convention on the Law of the Sea at 40: Successes and future prospects' (United Nations publication 2023) https://www.un.org/depts/los//doalos_publications/9789210018036_Unclos40EngWeb.pdf accessed 06 May 2024, 2; and, Keyuan Zou, Qiang Ye 'The relationship between UNCLOS and Customary International Law: Some reflections' (2023) *Marine Policy* 154 <https://doi.org/10.1016/j.marpol.2023.105691>.

³⁴ Except persistent objectors.

³⁵ IMO Assembly, 'Guidelines for the Designation of Special Areas and the Identification of Particularly Sensitive Sea Areas' (6 November 1991) IMO Assembly Resolution A.720 (17), p 9, para 1(3)(7).

³⁶ *Request for an Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law* (Advisory Opinion, 21 May 2024) available at: [C31_Adv_Op_21.05.2024_orig.pdf \(itlos.org\)](#) accessed 10 May 2023 (ITLOS Advisory Opinion).

³⁷ Article 194 UNCLOS, paragraphs 1 and 2 read:

1. States shall take, individually or jointly as appropriate, all measures consistent with this Convention that are necessary to prevent, reduce and control pollution of the marine environment from any source, using for this purpose the best practicable means at their disposal and in accordance with their capabilities, and they shall endeavour to harmonize their policies in this connection.
2. States shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with this Convention.

³⁸ ITLOS Advisory Opinion, paras 441(a-c).

³⁹ ITLOS Advisory Opinion, para 441(a).

- b. **The importance of taking into account the best available science and relevant climate change treaties:** ITLOS provided guidance on what the obligation to take ‘all necessary measures’ in the context of marine pollution prevention under UNCLOS entails:⁴⁰

States Parties to the Convention have the specific obligations to take all necessary measures to prevent, reduce and control marine pollution from anthropogenic GHG emissions and to endeavour to harmonize their policies in this connection. Such measures should be determined objectively, taking into account, inter alia, the best available science and relevant international rules and standards contained in climate change treaties such as the UNFCCC and the Paris Agreement, in particular the global temperature goal of limiting the temperature increase to 1.5°C above pre-industrial levels and the timeline for emission pathways to achieve that goal.

2. **Articles 197, 200 and 201 UNCLOS:**⁴¹ ‘Articles 197, 200 and 201, read together with articles 194 and 192 of the Convention, impose specific obligations on States Parties to cooperate, directly or through competent international organizations [...].’⁴² The IMO constitutes the competent organisation in relation to pollution from shipping. This emphasises the symbiotic relationship between the IMO and UNCLOS regimes in matters related to anthropogenic GHG emissions from ships, and further identifies States’ obligations to cooperate under the auspices of the IMO to fulfil their obligations under UNCLOS. Similarly, Articles 207⁴³ and 212⁴⁴ place on States, ‘specific obligations to take other necessary measures [aside from individual State measures] and, acting especially through competent international organizations or diplomatic conference, to endeavour to establish global and regional rules, standards and recommended practices and procedures.’⁴⁵
3. **Articles 202 and 203 UNCLOS:** Under Articles 202 and 203 of UNCLOS, ITLOS recognised the existence of specific obligations to assist developing States, including financial assistance, in particular those that are vulnerable to the impacts of climate change, in their efforts to address marine pollution from anthropogenic GHG emissions.⁴⁶ The Tribunal emphasised that:⁴⁷

⁴⁰ ITLOS Advisory Opinion, para 243.

⁴¹ Article 197 UNCLOS: States shall cooperate on a global basis and, as appropriate, on a regional basis, directly or through competent international organizations, in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment, taking into account characteristic regional features.

Article 200 UNCLOS: States shall cooperate, directly or through competent international organizations, for the purpose of promoting studies, undertaking programmes of scientific research and encouraging the exchange of information and data acquired about pollution of the marine environment. They shall endeavour to participate actively in regional and global programmes to acquire knowledge for the assessment of the nature and extent of pollution, exposure to it, and its pathways, risks and remedies.

Article 201 UNCLOS: In the light of the information and data acquired pursuant to article 200, States shall cooperate, directly or through competent international organizations, in establishing appropriate scientific criteria for the formulation and elaboration of rules, standards and recommended practices and procedures for the prevention, reduction and control of pollution of the marine environment.

⁴² ITLOS Advisory Opinion, para 441(j).

⁴³ Article 207 UNCLOS reads:

1. States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from land-based sources, including rivers, estuaries, pipelines and outfall structures, taking into account internationally agreed rules, standards and recommended practices and procedures.
2. States shall take other measures as may be necessary to prevent, reduce and control such pollution.
3. States shall endeavour to harmonize their policies in this connection at the appropriate regional level.
4. States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment from land-based sources, taking into account characteristic regional features, the economic capacity of developing States and their need for economic development. Such rules, standards and recommended practices and procedures shall be re-examined from time to time as necessary.
5. Laws, regulations, measures, rules, standards and recommended practices and procedures referred to in paragraphs 1, 2 and 4 shall include those designed to minimize, to the fullest extent possible, the release of toxic, harmful or noxious substances, especially those which are persistent, into the marine environment.

⁴⁴ Article 212, paragraph 3 UNCLOS reads: States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control such pollution.

⁴⁵ ITLOS Advisory Opinion, para 441(f).

⁴⁶ ITLOS Advisory Opinion, paras 322 – 339.

⁴⁷ ITLOS Advisory Opinion, para 330.

The main recipients of the assistance under article 202 of the Convention are developing States. In the context of marine pollution from anthropogenic GHG emissions, they should be those developing and least developed States that are most directly and severely affected by the effects of such emissions on the marine environment.

Article 203 reinforces the importance of support for developing States, particularly those most vulnerable to the climate crisis, by granting them preferential treatment, for instance, in funding from international organisations.⁴⁸ The Tribunal's interpretation categorises developing States most affected by the impacts of GHG emissions on the marine environment as 'main recipients', although it does not state that funds cannot be directed to other developing States. The Tribunal also determined that the obligation to provide financial assistance for States under UNCLOS is confined to the protection and preservation of the marine environment and the prevention, reduction and control of marine pollution.⁴⁹ It did not suggest that States could not go beyond this obligation if they so wished.

APPLICATION TO A GHG PRICING MECHANISM WITH POTENTIAL FOR DISTRIBUTION OF FUNDS ASIDE FROM INTERNATIONAL SHIPPING DECARBONISATION

The above section provides several considerations for the design and implementation of a GHG pricing mechanism adopted at the IMO. Considering the importance of systemic integration for the interpretation of international treaties, the author posits that the articles of UNCLOS referenced above are of relevance to the discussion in this paper in three ways.

First, according to Articles 197, 200 and 201 UNCLOS, States have a specific obligation to cooperate under the framework of the IMO (as the competent organisation in relation to pollution from shipping), to take the necessary measures to prevent, reduce and control pollution of the marine environment from shipping's GHG emissions. This can be understood to reinforce the remit of the IMO under Article 1(a) IMO Convention to prevent, reduce and control pollution of the marine environment from ships.

Second, Article 194 UNCLOS could be useful to provide further context on 'the highest practicable standards' of marine pollution prevention and control, encouraged in Article 1 of the IMO Convention. To ensure harmony with Article 194 UNCLOS, 'the highest practicable standards' for marine pollution prevention from ships under the Article 1 IMO Convention can be understood to be particularly stringent. This is due to the high risk of serious and irreversible harm to the marine environment from vessels' GHG emissions identified by ITLOS, and the transboundary nature of their pollution. To best align its relevant activities with the legal requirements of Article 194 UNCLOS, an evaluation of the measures taken by the IMO to encourage and facilitate the highest practicable standards under Article 1 IMO Convention should be determined objectively, taking into account, *inter alia*, the best available science and relevant international rules and standards contained in climate change treaties such as the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement, in particular the global temperature goal of limiting the temperature increase to 1.5°C.

Third, the interpretation of the Tribunal provides insight that could guide the optimal design of a GHG pricing mechanism, considering also its revenue generating potential, to ensure the measure's compatibility with the IMO legal framework when read in light of other rules of international law.

1. Funds should be prioritised for developing and least developed States, in particular those that are most directly and severely affected by the impacts of GHG emissions on the marine environment (noting this may extend beyond the impacts of international shipping's emissions alone).

⁴⁸ ITLOS Advisory Opinion, paras 337–338.

⁴⁹ ITLOS Advisory Opinion, para 336.

2. States must create mechanisms to ensure financial assistance is available for the protection and preservation of the marine environment and the prevention, reduction and control of marine pollution, not only from international shipping. The obligation under UNCLOS is to provide assistance related to the protection and preservation of the marine environment and the prevention, reduction and control of marine pollution. This could be argued to extend the potential uses of distributed revenues beyond purposes confined to shipping's GHG emissions reductions alone – any purposes which aid the protection and preservation of the marine environment and/or the reduction of marine pollution would then be compatible with this contextual understanding of the IMO Convention in light of UNCLOS. This would facilitate a broad reach for the potential uses of funds - anthropogenic GHG emissions from all sectors and across societies impact the marine environment, not only shipping's emissions. As the planet's greatest carbon sink, the ocean absorbs more excess heat and energy released from rising GHG emissions trapped in the Earth's system than any other source.⁵⁰ The impacts of climate change on the marine environment include increased ocean acidification, coral bleaching and marine biodiversity loss.⁵¹ Any action taken to reduce global anthropogenic GHG emissions should thus be understood to assist the protection and preservation of the marine environment. The obligations identified by UNCLOS can be understood as a minimum standard for States to fulfil to comply with international law.

The following paragraphs examine how these legal considerations could influence the design and implementation of a GHG pricing mechanism adopted at the IMO.

1. A GHG pricing mechanism can be designed to contribute to the particularly stringent 'highest practicable standards' for marine pollution prevention from ships under the Article 1 IMO Convention.

Scholarship indicates that a GHG pricing mechanism could aid the prevention and control of marine pollution from ships in several ways. Parry et al. recognise a 'carbon levy' (understood to be a form of GHG pricing mechanism) as providing the price signal needed to promote both short- and long-term emissions mitigation responses.⁵² In the short term, such a mechanism could drive emissions-reducing efficiency improvements in new and used vessels. In the medium to longer term, it could help to close the competitiveness gap between fossil fuels and zero-emission fuels by increasing the costs of using fossil fuels. This is similarly reflected in the work of Rojon et al.⁵³ More generally, according to the UN Convened Net-Zero Asset Owner Alliance, 'carbon pricing' can also help to increase investor certainty in zero emission fuels and energy sources.⁵⁴

In addition, funds generated by a GHG pricing mechanism adopted at the IMO could be used to further drive the highest practicable standards of marine pollution prevention from shipping. According to World Bank analysis (Dominioni et al.),⁵⁵ also submitted to the MEPC's inter-sessional working group on GHG emissions,⁵⁶

⁵⁰ Subsidiary Body for Scientific and Technological Advice, 'Ocean and climate change dialogue to consider how to strengthen adaptation and mitigation action: Informal summary report by the Chair of the Subsidiary Body for Scientific and Technological Advice' (United Nations Framework Convention on Climate Change, 29 April 2021) [Ocean and Climate Change Dialogue - Informal summary report by the SBSTA Chair \(unfccc.int\)](https://unfccc.int) accessed 23 April 2024.

⁵¹ 'How is Climate Change Impacting the World's Oceans' (United Nations, nd) [How is climate change impacting the world's ocean | United Nations](https://www.un.org/en/development/desa/press/releases/how-is-climate-change-impacting-the-worlds-ocean/) accessed 23 June 2024.

⁵² Ian Parry, Dirk Heine, Kelley Kizzier and Tristan Smith, 'A carbon levy for international maritime fuels' Review of Environmental Economics and Policy (2022) 16(1) <https://doi.org/10.1086/717961> accessed via [A Carbon Levy for International Maritime Fuels \(ucl.ac.uk\)](https://www.ucl.ac.uk/energy/energy-policy/a-carbon-levy-for-international-maritime-fuels) las accessed 30 July 2024, 3-4.

⁵³ Isabelle Rojon, Alison Shaw, Lau Blaxekjaer, Asya Kulaksiz, 'Insight Brief: Policy Options for Closing the Competitiveness Gap Between Fossil and Zero-Emission Fuels in Shipping' (Getting to Zero Coalition 2021) [INSIGH1.pdf \(globalmaritimeforum.org\)](https://www.gettingtozero.org/insight-brief-policy-options-for-closing-the-competitiveness-gap-between-fossil-and-zero-emission-fuels-in-shipping/) accessed 17 June 2024.

⁵⁴ UN Convened Net-Zero Asset Owner Alliance, 'Position paper on Governmental Carbon Pricing' (UNEP 2022) [NZAOA_Governmental-Carbon-Pricing.pdf \(unepfi.org\)](https://www.unepfi.org/publications/position-paper-on-governmental-carbon-pricing/) accessed 17 June 2024.

⁵⁵ Goran Dominioni, Isabelle Rojon, Rico Salgmann, Dominik Englert, Cáit Gleeson, and Sotiria Lagouvardou, 'Distributing Carbon Revenues from Shipping' (License: Creative Commons Attribution CC BY 3.0 IGO. World Bank, Washington, DC, 2023).

⁵⁶ Document ISWG-GHG 16/2/20 (World Bank, 26 January 2024).

a significant quantity of finance⁵⁷ will be required to decarbonise the international shipping sector and, thus, a large share of revenues from a GHG pricing instrument could be channelled directly towards international shipping's decarbonisation. If this revenue is used to finance, scale up, and accelerate the decarbonisation of international shipping, it will assist in the prevention and control of marine pollution from ships. Nonetheless, the argument for all revenues to be returned to the international shipping sector, or even more broadly to the maritime transport sector, is contested. Parry et al. argue that returning revenues to ship operators rather than using them to increase economic efficiency 'severely undermines the cost-effectiveness of carbon taxation'.⁵⁸

Literature indicates that certain uses of revenues beyond international shipping's decarbonisation could result in a higher practicable standard of prevention and control of marine pollution from ships.⁵⁹ When used in conjunction with dedicated spending within the international shipping sector, these uses could be considered compatible with the goal of achieving the highest practicable standards of marine pollution. For example, spending on zero-GHG energy sources and technologies aside from those directly related to international shipping or maritime transport provides synergies with those sector's decarbonisation. Dominioni and Englert argue that investment in the production of alternative fuels and associated infrastructure can facilitate significant decarbonisation opportunities for the international shipping sector. The authors note that some types of non-shipping related spending, such as financing the development of a zero-carbon power supply, can help the shipping industry decarbonise while delivering co-benefits outside of the sector.⁶⁰ In the same vein, research by UMAS and the Energy Transitions Commission for the Global Maritime Forum for the Getting to Zero Coalition, shows the biggest share of investment needed to decarbonise international shipping is actually needed in the land-based infrastructure and production facilities for low carbon fuels. This includes investments in the production of low carbon fuels, and the land-based storage and bunkering infrastructure needed for their supply. According to this analysis, only 13% of the investments needed to decarbonise international shipping are related to the ships themselves, which include the machinery and onboard storage required for a ship to run on low carbon fuels in newbuilds and, in some cases, for retrofits.⁶¹

In addition, it may be possible to argue that dedicated spending of revenues for purposes related to climate action can support international shipping's emissions reductions and, therefore, assist in attaining the highest practicable standards of prevention and control of marine pollution from ships. Dedicated spending on climate mitigation and adaptation more broadly than shipping alone, could reduce the impacts of climate change on maritime trade and increase the preparedness and resilience of societies and economies. Extreme weather events, such as droughts and storms, increase the frequency and severity of trade disruptions. This typically results in increased GHG emissions from international shipping.⁶² For instance, in 2024 one of the worst droughts in central America resulted in a 36% reduction in crossings of the Panama Canal.⁶³ Disruptions to key trade routes

⁵⁷ As an indication of the investment needed, see: Randall Krantz, Kasper Sogaard; Tristan Smith, 'The Scale of Investment needed to Decarbonise International Shipping' (Getting to Zero Coalition 2020) [Getting-to-Zero-Coalition Insight-brief Scale-of-investment.pdf \(globalmaritimeforum.org\)](#) accessed 17 June 2024; See also, Sotira Lagouvardou, 'Market-Based Measures for Sustainable Shipping' (Ph.D. Thesis, 2023) [Market-Based Measures for Sustainable Shipping — Welcome to DTU Research Database](#) accessed 23 June 2024.

⁵⁸ Ian Parry, Dirk Heine, Kelley Kizzier and Tristan Smith, 'A carbon levy for international maritime fuels' Review of Environmental Economics and Policy (2022) 16(1) <https://doi.org/10.1086/717961> accessed via [A Carbon Levy for International Maritime Fuels \(ucl.ac.uk\)](#) las accessed 30 July 2024, 5.

⁵⁹ Goran Dominioni, Isabelle Rojon, Rico Salgmann, Dominik Englert, Cáit Gleeson, and Sotiria Lagouvardou, 'Distributing Carbon Revenues from Shipping' (License: Creative Commons Attribution CC BY 3.0 IGO. World Bank, Washington, DC, 2023); OECD 'Pricing Greenhouse Gas Emissions: Turning Climate Targets into Climate Action' (OECD Series on Carbon Pricing and Energy Taxation, OECD Publishing, Paris, 2022) <https://doi.org/10.1787/e9778969-en> accessed 03 May 2024.

⁶⁰ Goran Dominioni and Dominik Englert, 'Carbon Revenues from International Shipping: Enabling an effective and equitable transition' (Technical Paper, License: CC BY 3.0 IGO, World Bank, Washington, DC, 2022) <https://openknowledge.worldbank.org/handle/10986/37240> accessed 17 June 2024.

⁶¹ Randall Krantz, Kasper Sogaard and Tristan Smith, 'The scale of investment needed to decarbonize international shipping' (Global Maritime Forum, Insight Brief 20 January 2020) [The scale of investment needed to decarbonize international shipping | Global Maritime Forum](#) accessed 13 August 2024.

⁶² For an overview of climate changes impact on shipping costs and emissions, see: -- 'Climate change's disruptive impact on global supply chains and the urgent call for resilience' (Economist Impact, 2024) [Climate change's disruptive impact on global supply chains and the urgent call for resilience \(economist.com\)](#) accessed 17 June 2024.

⁶³ For an overview of climate changes impact on shipping costs and emissions, see: -- 'Global shipping costs are rattling supply chains' (Economist Impact, 2024) [Global shipping costs are rattling supply chains \(economist.com\)](#) accessed 17 June 2024.

such as these are reported to lead to increased GHG emissions due to route changes and operational changes.⁶⁴ Increased mitigation efforts globally, in combination with increased investment in climate resilience, reduces the risk of damage from extreme weather events and enhances the ability to quickly recover, ensuring smoother and more reliable shipping operations. This area requires further research.

This analysis indicates that a GHG pricing mechanism can be designed and implemented in a way that encourages the prevention and control of marine pollution from ships. To help encourage and facilitate the particularly stringent ‘highest practicable standards’ the revenue generating function of the pricing mechanism could be key: to whom the revenues are distributed, and for which purposes will impact its consequences. Uses of revenues outside of the international shipping sector could better help to fulfil the IMO’s objectives, when compared to scenarios that exclusively facilitate distribution of revenues within that sector.

2. A GHG pricing mechanism can be designed to facilitate financial assistance for developing countries in the context of protection of the marine environment from climate change.

As described above, States should cooperate under competent international organisations (in this case the IMO) to ensure financial assistance is available for the protection and preservation of the marine environment and the prevention, reduction and control of marine pollution. The main recipients of funds should be developing and least developed States, in particular, although not exclusively, those that are most directly and severely affected by the impacts of GHG emissions on the marine environment.

When applied to the design of a GHG pricing mechanism adopted at the IMO, States’ customary international law obligations under UNCLOS provide support for the prioritisation of revenue distribution for developing countries most impacted by the pollution of the marine environment, in particular Small Island Developing States (SIDS) and Least Developed Countries (LDCs). These obligations could also be argued to support potential use of revenues for purposes beyond international shipping’s GHG emissions reductions alone. Anthropogenic GHG emissions from all sectors impact the marine environment, not only international shipping’s emissions. Therefore, any action taken to reduce global anthropogenic GHG emissions can be understood to assist the protection and preservation of the marine environment.

When read in light of the stringent standard of States’ obligations in relation to the pollution of the marine environment under UNCLOS, a revenue generating measure which prioritises funds for developing and least developed States and extends potential uses of revenue to projects related to GHG emissions reductions more broadly (not only within international shipping) may be compatible with a contextual understanding of the IMO Convention.

4. ANALYSIS OF MARPOL

MARPOL is the main international convention concerning the prevention of pollution of the marine environment by ships from both operational and accidental causes. Annex VI contains the relevant ‘Regulations for the Prevention of Air Pollution from Ships.’⁶⁵ This includes limits on sulphur oxide and nitrogen oxide emissions from ship exhausts and deliberate emissions of ozone depleting substances and mandatory technical and operational requirements related to GHG reductions.

⁶⁴ When ships take longer routes, they spend more time at sea. This extended voyage requires additional fuel consumption to sustain the vessels. [As a result, greenhouse gas emissions increase due to the extra fuel burned during the journey.](#)

⁶⁵ Annex VI Prevention of Air Pollution from Ships (entered into force 19 May 2005). Annex VI to the International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL), as modified by the Protocol of 1978 relating thereto, and as modified by the Protocol of 1997

MEPC 81 agreed on an ‘Illustration of a draft possible outline of the “IMO Net-Zero Framework”’⁶⁶ which could be used to incorporate the mid-term measures, including a GHG pricing mechanism, as an amendment to MARPOL’s Annex VI.⁶⁷ Measure proponents have been encouraged to use this ‘Draft Illustrative Framework’ as a template to propose text-based amendments to the MARPOL Convention. However, some stakeholders have expressed uncertainty as to whether it is permissible to include details regarding revenue distribution for purposes not directly related to international shipping decarbonisation within MARPOL.

4.1 TEXTUAL ANALYSIS

A text-based analysis of the MARPOL Convention has been completed in previous literature and confirms that a GHG pricing mechanism could be adopted in this manner. O’Leary and Brown conclude that:⁶⁸

Article 1 of MARPOL sets out its purpose, which is that “the Parties to the Convention undertake to give effect to the provisions of the present Convention and those Annexes thereto by which they are bound, in order to prevent the pollution of the marine environment by the discharge of harmful substances or effluents containing such substances in contravention of the Convention.” There is no restriction in MARPOL on the type of measure that can be contained within it. To date it has included operational and technical measures but there is no legal reason why this could not be expanded to include an economic measure.

Indeed, the only textual limitations on the measures that can be enshrined within MARPOL are the requirements of Article 16 that amendments ‘shall relate to the substance of that Protocol or Annex and shall be consistent with the articles of the present Convention’.⁶⁹ The substance of MARPOL, Annex VI considers the prevention and control of air pollution and GHG emissions from ships.⁷⁰ An amendment to establish a GHG pricing mechanism, as a component of the basket of mid-term GHG emissions reductions measures, certainly ‘relates’ to this. However, the question remains as to whether a pricing mechanism which distributes revenues outside of the international shipping sector, as well as within it, is consistent with articles of MARPOL as a whole.

As identified previously in this paper, the primary purpose of proposed GHG pricing mechanisms is presented as reduction of GHG emissions from international shipping. Distribution of revenues from the GHG pricing mechanisms, irrespective of the potential uses, could simply be considered a necessary consequence of, or secondary to, this primary purpose. With this understanding, an argument against the inclusion of a GHG pricing mechanism in MARPOL would be difficult.

4.2 PURPOSIVE ANALYSIS

As for a purposive or teleological understanding, previous scholarship has not established an accepted ‘object and purpose’ for MARPOL. However, Article 1 of MARPOL provides an insight into the objective of the Convention by way of States’ general obligations: ‘the Parties to the Convention undertake to give effect to the provisions of the present Convention and those Annexes [...] in order to prevent the pollution of the marine environment by the discharge of harmful substances or effluents containing such substances in contravention of the Convention.’ The prevention of pollution of the marine environment is key to the object and purpose of the treaty. This is supported by a contextual understanding of MARPOL, aided by consideration of, *inter alia*,

⁶⁶ The preambular paragraphs of the MARPOL Convention state that Parties are: ‘CONSCIOUS of the need to preserve the human environment in general and the marine environment in particular [...] DESIRING to achieve the complete elimination of intentional pollution of the marine environment by oil and other harmful substances [...]’

⁶⁷ Specifically, by adding a fifth chapter to Annex VI.

⁶⁸ Aoife O’Leary and Jennifer Brown, ‘The Legal Basis for IMO Climate Measures’ (Environmental Defense Fund, Sabin Centre for Climate Change Law, Columbia Law School, June 2018) https://scholarship.law.columbia.edu/sabin_climate_change/79 accessed 01 May 2024. Also submitted to the MEPC as: Document MEPC 76/INF.22 and MEPC 76/7/11.

⁶⁹ MARPOL, art 16(7).

⁷⁰ MARPOL has included measures specifically aimed at reducing GHG emissions from ships since 2011.

the preamble⁷¹ and the holistic framework of policies and practices related to GHG emissions reductions at the IMO.⁷²

Considering Annex VI in light of the objective of MARPOL indicates that any mechanism which aids the prevention of pollution of the marine environment from shipping is consistent with the objectives of the MARPOL framework. Again, it is important to note that the primary purpose of proposed GHG pricing mechanisms can be presented as reduction of GHG emissions from international shipping, and that distribution of revenues is a secondary consequence of this primary purpose. Nonetheless, in Section 3 above, it is considered how the ‘highest practicable standards’ for the prevention and control of marine pollution from ships might be best facilitated to support the objectives of the IMO Convention. The argument that a GHG pricing mechanism which includes revenue distribution for purposes other than international shipping decarbonisation would help to achieve the highest practicable standards of GHG pollution reduction from ships applies in a similar manner in the case of MARPOL. Certain uses of revenues outside of the shipping sector, alongside uses within the sector, could better facilitate the achievement of the ‘highest practicable standard’ in matters concerning the prevention and control of marine pollution from ships when compared to scenarios that exclusively facilitate distribution of revenues within sector.

Thus, compounded by the fact there is no textual limitation to suggest otherwise, the addition of a GHG pricing mechanism which includes the distribution of revenues outside of the international shipping sector can also be consistent with a purposive interpretation of MARPOL.

4.3 CONTEXTUAL ANALYSIS: ADDITIONAL AGREEMENTS

The broader context of a treaty includes, in brief, subsequent agreement or practice between the parties which may aid contemporaneous understanding of its meaning. Such an agreement may, but need not, be legally binding for it to be taken into account.⁷³ MARPOL, in particular Annex VI, is part of a broader regulatory framework relating to the IMO policies and practices on the reduction of GHG emissions from ships. General Assembly Resolution A.963(23) records the historical development of the IMO’s activities in the area, leading to the adoption of MARPOL Annex VI.⁷⁴ Noting this context, the preamble to the 2023 IMO Strategy on Reduction of GHG Emissions from Ships (2023 Strategy) states, ‘work to address greenhouse gas (GHG) emissions from ships has been undertaken by the Organization continuously since the adoption of Conference resolution 8 on CO₂ emissions from ships in September 1997, in particular, through the adoption of global mandatory technical and operational energy efficiency measures for ships under MARPOL Annex VI.’⁷⁵

The 2023 Strategy is the most recent⁷⁶ subsequent agreement of Parties to MARPOL (all IMO Member States including those who have ratified MARPOL are members of the MEPC, which adopted the 2023 Strategy) and therefore can shed light on a contemporary interpretation of MARPOL, in particular its Annex VI.

⁷¹ The preamble includes the lines: ‘Being Conscious of the need to preserve the human environment in general and the marine environment in particular [...]’ and ‘Desiring to achieve the complete elimination of intentional pollution of the marine environment by oil and other harmful substances and the minimization of accidental discharge of such substances [...]’.

⁷² International Maritime Organization, ‘IMO Policies and Practices Related to the Reduction of Greenhouse Gas Emissions from Ships’ General Assembly Resolution A.963(23) Agenda Item 19 (Adopted on 5 December 2023) Document A 23/Res.96.

⁷³ International Law Commission, ‘Text of the draft conclusions on subsequent agreements and subsequent practice in relation to the interpretation of treaties’ in ‘Report of the Commission to the General Assembly on the work of its seventieth session’ (2018) A/CN.4/SER.A/2018/Add.1 (Part 2), Conclusion 10, para 1.

⁷⁴ International Maritime Organization, ‘IMO Policies and Practices Related to the Reduction of Greenhouse Gas Emissions from Ships’ General Assembly Resolution A.963(23) Agenda Item 19 (Adopted on 5 December 2023) Document A 23/Res.96.

⁷⁵ International Maritime Organization, ‘2023 IMO Strategy on Reduction of GHG Emissions from Ships’ MEPC Resolution MEPC.377(80) (Adopted on 7 July 2023) MEPC 80/17/Add.1, Annex 15 (The IMO 2023 Strategy), 1.

⁷⁶ At time of writing.

Although the 2023 Strategy as a whole should be considered for a contextual analysis, three provisions may be of particular relevance to the revenue distribution discussion in the context of the mid-term measures:

1. Section 2 of the 2023 Strategy sets out the IMO's overall vision with regard to GHG reductions from international shipping as: 'committed to reducing GHG emissions from international shipping and, as a matter of urgency, aims to phase them out as soon as possible, while promoting, in the context of this Strategy, a just and equitable transition.'⁷⁷
2. Section 4, paragraph 5 describes what the mid-term GHG reduction measures should aim to achieve: 'The mid-term GHG reduction measures should effectively promote the energy transition of shipping and provide the world fleet with a needed incentive while contributing to a level playing field and a just and equitable transition.'⁷⁸
3. Section 5, paragraph 3 provides information on considerations for the development of mid-term measures: 'When developing candidate mid- and long-term GHG reduction measures, due account should be taken to ensure a just and equitable transition that leaves no country behind, including supportive measures.'⁷⁹

These provisions underline some core considerations for the IMO's mid-term measures in their context of the policies and practices related to the reduction of GHG emissions from ships. This includes that adopted measures should be effective at achieving GHG emissions reductions from international shipping, promoting the energy transition of the sector and providing the world fleet with a needed incentive to transition. They should also contribute to a level playing field and the promotion of a just and equitable transition that leaves no country behind.

A GHG pricing mechanism's ability to assist in the reduction of GHG emissions from international shipping, promote the transition of the sector and incentivise the world fleet to decarbonise has been discussed above. Its ability to level the playing field and promote a just and equitable transition that leaves no country behind is considered presently.

There is no formal definition of the terms just and equitable within the 2023 Strategy. This paper will not attempt to define the terms and acknowledges that there may be many interpretations, not all of which can be included here. Shaw and De Beukelaer note that these terms are often understood to reference, *inter alia*, the historical inequity of contributions to the climate crisis; the disproportionate costs to many developing countries, in particular SIDS and LDCs, in terms of climate change impacts, mitigation and adaptation; the disproportionate impacts of measures on States and differing capacities of States to respond to measures which impact trade; and, particular considerations for individuals and communities during the transition e.g. seafarers.⁸⁰ Each of these elements could therefore be an important factor in the design of the IMO's GHG pricing mechanism.

There are many ways in which a just and equitable transition could be supported. However, analysis by Dominiononi and Englert, identified revenue raising market-based measures, such as a GHG levy or other pricing mechanism, as having the potential to not only reduce GHG emissions cost-effectively but also to raise revenues

⁷⁷ The IMO 2023 Strategy, Section 2: 'Vision'.

⁷⁸ The IMO 2023 Strategy, Section 4 para 5.

⁷⁹ The IMO 2023 Strategy, Section 5 para 3.

⁸⁰ Aly Shaw and Christiaan De Beukelaer, 'Why should we talk about a 'just and equitable' transition for shipping?' (UNCTAD 15 September 2022) [Why should we talk about a 'just and equitable' transition for shipping? | UNCTAD](#) accessed 10 June 2024.

which enable additional actions to respond to the needs of a just and equitable transition.⁸¹ They propose that this is a unique feature not offered by any other mid-term measure.⁸²

The way in which revenues from a GHG pricing mechanism are used could be instrumental in supporting the just and equitable transition, both in terms of who receives funds and for what they are prioritised. Developing countries are often more vulnerable to climate risks, have less capacity to address them, and have historically contributed less to climate change than many developed countries.⁸³ If funds are prioritised for developing countries, in particular SIDS and LDCs, this could help to address the existing global inequity in resources and capacity to transition away from fossil fuels and tackle climate change, both within the international shipping sector and externally.

In terms of how revenues could be spent to support a just and equitable transition, Dominioni et al. (World Bank, 2023) examined the implications of revenue distribution scenarios for an equitable transition. The authors suggest that an equitable transition is better facilitated by spending carbon revenues beyond maritime transport:⁸⁴

Spending carbon revenues exclusively on maritime transport is likely to limit some developing countries' access to carbon revenues. Some developing countries, including many small island developing states (SIDS) and least developed countries (LDCs), as well as landlocked developing countries (LLDCs) have limited opportunities to spend carbon revenues on maritime transport. Therefore, using carbon revenues exclusively for maritime transport-related spending appears to be at odds with supporting an equitable transition.

In order to contribute to a level playing field and promote a just and equitable transition, Dominioni et al.'s argument supports the allocation of some funds generated by the GHG pricing mechanism (1) to developing countries including SIDS and LDCs and (2) to some purposes other than exclusive maritime transport uses.

While the nuances of revenue disbursement are ultimately subject to a decision of Member States, the ability of a GHG pricing mechanism to promote a just and equitable transition will be highly influenced by the way in which revenues are disbursed. If Member States choose to adopt a GHG pricing mechanism that is designed to prioritise a just and equitable transition, in line with the provisions of the 2023 Strategy, this would help to ensure that the mechanism is consistent with MARPOL Annex VI when read in light of the broader context of IMO policies and practices on the reduction of GHG emissions from ships.

5. CONCLUSION

This analysis provides an interpretation to support the legality of the adoption of a GHG pricing mechanism which includes the potential for use of generated funds for purposes aside from international shipping decarbonisation at the IMO.

⁸¹Goran Dominioni and Dominik Englert, 'Carbon Revenues From International Shipping: Enabling an Effective and Equitable Energy Transition' (Technical Paper, License: [CC BY 3.0 IGO](https://creativecommons.org/licenses/by/3.0/), World Bank 2022) <http://hdl.handle.net/10986/37240> accessed 10 June 2024.

⁸² See, World Bank, 'Consideration of Concrete Proposals for Mid- and Long-Term Measures and Associated Impact Assessments in the Context of Phase I of the Work Plan as well as the Proposal to Establish an International Maritime Research Board: Carbon revenues from international shipping: enabling an effective and equitable energy transition' in Document ISWG-GHG 12/3/16.

⁸³ Goran Dominioni, Isabelle Rojon, Rico Salgmann, Dominik Englert, Cáit Gleeson, and Sotiria Lagouvardou, 'Distributing Carbon Revenues from Shipping' (License: Creative Commons Attribution CC BY 3.0 IGO. World Bank, Washington, DC, 2023), 8 (para 3). Also submitted to the MEPC's Intersessional Working Group on GHG emissions as: Document ISWG-GHG 16/2/20 (World Bank, 26 January 2024).

⁸⁴ Goran Dominioni, Isabelle Rojon, Rico Salgmann, Dominik Englert, Cáit Gleeson, and Sotiria Lagouvardou, 'Distributing Carbon Revenues from Shipping' (License: Creative Commons Attribution CC BY 3.0 IGO. World Bank, Washington, DC, 2023), 8 (para 3). Also submitted to the MEPC's Intersessional Working Group on GHG emissions as: Document ISWG-GHG 16/2/20 (World Bank, 26 January 2024).

Many key design decisions are within the policy discretion of IMO Member States, and the relevant provisions of the IMO Convention and MARPOL indicate that there is limited restriction on the kinds of measures which may be used to fulfil the Organization's objectives. However, this paper suggests that the design of a GHG pricing mechanism to include distribution of revenues outside of the international shipping sector alongside uses within the sector, is legally feasible and, in some scenarios, could better support the objective of the IMO to encourage and facilitate the prevention and control of marine pollution from ships when compared to scenarios that exclusively facilitate distribution of revenues within the sector. Similarly, broader distribution scenarios may aid consistency of the IMO legal regime and practices with relevant rules of international law, in particular UNCLOS, as well as supporting its own policies and practices in relation to GHG reduction.

The paper also confirms the legality of the adoption of the measure within MARPOL's Annex VI, should the political will exist. On the one hand, it could be argued that the primary purpose of all proposed GHG pricing mechanisms is the reduction of GHG emissions from international shipping. Distribution of revenues from the GHG pricing mechanisms, irrespective of the potential uses, could be considered a necessary consequence of, or secondary to, this primary purpose. With this understanding, any argument against the inclusion of a GHG pricing mechanism in MARPOL would be limited. Furthermore, when taking into account a purposive interpretation of MARPOL, some use of revenues outside of the international shipping sector alongside uses within the sector, could better support the prevention and control of pollution from international shipping, and would therefore be compatible with MARPOL. In addition, when considering the optimal design of the measure and the purposes for which revenue can be distributed, a contextual interpretation of MARPOL would require Member States to take into account the IMO's existing policies and practices related to pollution prevention from shipping. This paper considered the potential design consequences for a GHG pricing mechanism that prioritises a just and equitable transition, in line with the provisions of the 2023 Strategy. Aligning the design of a GHG pricing mechanism with the principles of a just and equitable transition will help to ensure that an amendment is consistent with MARPOL Annex VI in its role within the broader regulatory framework of IMO policies and practices on the reduction of GHG emissions from ships.