



INTERNATIONAL TRIBUNAL FOR THE LAW OF THE SEA

**REQUEST FOR AN ADVISORY OPINION SUBMITTED BY THE
COMMISSION OF SMALL ISLAND STATES ON CLIMATE CHANGE
AND INTERNATIONAL LAW**

**(REQUEST FOR ADVISORY OPINION SUBMITTED TO THE
TRIBUNAL)**

(CASE NO. 31)

AMICUS CURIAE BRIEF OF OPPORTUNITY GREEN

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AMICUS CURIAE BRIEF OF OPPORTUNITY GREEN

CHAPTER 1 INTRODUCTION

1. This amicus curiae brief (the “Submission”) is made by Opportunity Green with respect to the Request for An Advisory Opinion Submitted by the Commission of Small Island States on Climate Change and International Law (“COSIS”) on 12 December 2022.

I. Amicus curiae expertise

2. Opportunity Green is a United Kingdom (“UK”) registered charity (registered UK charity number: 1199413) and non-governmental organization (“NGO”) that has as its charitable objects the promotion and advancement of the conservation, protection and enhancement of the environment. Opportunity Green uses legal, economic and policy knowledge to tackle climate change. It does this by amplifying diverse voices, forging ambitious collaborations and using legal innovation to motivate decision makers and achieve climate justice.
3. Opportunity Green has particular expertise in shipping policy at the international level. It specifically works with climate vulnerable countries, who are traditionally under-resourced and underrepresented at the International Maritime Organization (“IMO”), providing them with briefing notes, facilitating information sharing and networking events and hosting bilateral meetings as required to help in the preparation of countries’ positions. Opportunity Green also has considerable expertise in the legal and regulatory frameworks governing shipping policy in the UK, European Union (“EU”), and United States. The organization regularly advises other NGOs and policymakers on both IMO legal and political processes and policies and has published several legal advisory opinions on the same issues.

II. Scope of this Submission

4. The Tribunal has been requested by COSIS to address the following questions (the “COSIS Questions”):

What are the specific obligations of State Parties to the United Nations Convention on the Law of the Sea (“UNCLOS”),^[1] including under Part XII:

(a) to prevent, reduce and control pollution of the marine environment in relation to the deleterious effects that result or are likely to result from climate change, including through ocean warming and sea level rise, and ocean acidification, which are caused by anthropogenic greenhouse gas emissions into the atmosphere?

¹ United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3.

(b) to protect and preserve the marine environment in relation to climate change impacts, including ocean warming and sea level rise, and ocean acidification?

5. This Submission seeks to assist the Tribunal in answering the above questions. In light of Opportunity Green’s specialist expertise outlined in paragraph 3, this Submission is particularly focused on the specific obligations of States Parties in relation to vessel pollution in the context of the questions posed to the Tribunal. We argue that the specific obligations of States Parties to UNCLOS to (a) prevent, reduce and control pollution of the marine environment in relation to the deleterious effects that result or are likely to result from climate change, and (b) protect and preserve the marine environment from climate change, include, *inter alia*, the effective regulation of greenhouse gas (“GHG”) emissions from vessels through the adoption of adequate standards and effective enforcement of those standards by States Parties generally, and specifically, by States operating under the flag and port State jurisdiction outlined in UNCLOS. We submit that to date such adequate standards do not exist.
6. As such, we respectfully ask the Tribunal to clarify that UNCLOS requires States Parties to adopt stringent standards on vessel GHG emissions either domestically, in concert with other States Parties or through the competent international organization (or general diplomatic conference) to ensure the temperature goals of the Paris Agreement² can be achieved.

III. Structure of this Submission

7. This Submission is structured as follows:
 - a. Chapter 2 (*GHG emissions from vessels constitute pollution of the marine environment under UNCLOS*) shows that GHG emissions from vessels falls within the definition of “pollution of the marine environment” under Article 1(1)(4) and therefore that the associated obligations under Part XII of UNCLOS apply to States Parties in relation to GHG emissions from vessels.
 - b. Chapter 3 (*States Parties’ obligations, including working through the competent international organization, the International Maritime Organization (IMO), in respect of vessel pollution, and including the regulation of GHG emissions*) addresses the nature and operation of those obligations, to show that the States Parties’ due diligence obligations require States Parties to ensure the adequacy and enforcement of international rules and standards on pollution of the marine environment. It argues that the prevailing mode of standard setting through the IMO is currently insufficient in the context of international legal obligations on climate change under the Paris Agreement, and therefore does not properly discharge States Parties’ obligations under Part XII of UNCLOS.
 - c. Chapter 4 (*UNCLOS authority to regulate*) sets out the obligations of flag and port States to unilaterally (or regionally) regulate GHG emissions from ships (where international rules and standards on GHG emissions are insufficient) and to enforce such regulations.

² Paris Agreement (adopted 12 December 2015, entered into force 4 November 2016) 3156 UNTS 1.

IV. Interpretation

8. In this Submission:
 - a. any reference to “Article” or “Articles” is a reference to the relevant Article or Articles of UNCLOS, unless stated otherwise;
 - b. a reference to a “paragraph” is to a paragraph of this Submission, unless stated otherwise; and
 - c. capitalised terms used but not defined in this Submission shall have the meaning given to those terms in UNCLOS.

CHAPTER 2

GHG EMISSIONS FROM VESSELS CONSTITUTE POLLUTION OF THE MARINE ENVIRONMENT UNDER UNCLOS

9. This Chapter 2 addresses the interpretative issue raised by the COSIS Questions, namely the types of pollutions likely to cause climate change and deleterious impacts on the marine environment, and whether this includes GHG emissions.
10. We submit that the definition of “pollution of the marine environment” under Article 1(1)(4) includes atmospheric pollution in the form of GHG emissions (including GHG emissions from vessels). The definition is as follows:

“pollution of the marine environment” means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities
11. GHG emissions from shipping satisfy each element of this definition:
 - a. “introduction by man”: It is self-evident that GHG emissions from shipping are introduced through human activities;
 - b. “directly or indirectly, of substances or energy into the marine environment”: GHG emissions are a direct introduction of substances (the three main GHGs emitted from vessels are carbon dioxide, methane, and nitrous oxide, which together constitute 2.89% of global anthropogenic emissions³) into the atmosphere, causing global warming, and this results in indirect introduction of these substances into the ocean, as well as addition of heat energy into the ocean;
 - c. “which results in such deleterious effects as harm to living resources and marine life [...] and reduction of amenities”: The Intergovernmental Panel on Climate Change (“IPCC”) has indicated that from the best available science GHG emissions result or are likely to result in deleterious effects on the marine environment. This includes warming and acidification which alters the physical and chemical makeup of the ocean and threatens the functioning of marine ecosystems through “deleterious effects”. These changes and their impacts are

³ Jasper Faber and others, *Fourth IMO Greenhouse Gas Study 2020* (International Maritime Organization 2020).

well documented by successive IPCC reports, including the IPCC Special Report on Oceans and the Cryosphere in a Changing Climate (2019).^{4,5}

12. A broad definition is consistent with the drafting of Part XII of UNCLOS which suggests that the States Parties intended the regime to apply comprehensively to all sources of marine pollution:⁶
 - a. Article 194(1) applies to “pollution of the marine environment *from any source*” (emphasis added);
 - b. Article 194(3) states that the “measures taken pursuant to this Part shall deal with *all sources* of pollution of the marine environment” (emphasis added); and
 - c. Articles 207 to 212 inclusive capture a broad range of sources of marine pollution including land-based sources, seabed activities, activities in the Area, dumping, vessels, and the atmosphere.
13. The conclusion that GHG emissions (including from shipping) fall within the definition of “pollution of the marine environment” under Article 1(1)(4) is not only supported by the best available science but further reinforced by a preponderance of

⁴ See, for example: IPCC, *Synthesis Report of the IPCC Sixth Assessment Report (AR6): Longer Report* in Paola Arias and others (eds), (IPCC 2023) <https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf> accessed 15 June 2023; IPCC, ‘Summary for Policymakers’ in Hans-Otto Pörtner and others (eds), *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (CUP 2022) <https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf> accessed 15 June 2023; IPCC, ‘Oceans and Coastal Ecosystems and Their Services’ in Hans-Otto Pörtner and others (eds), *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (CUP 2022) <https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf> accessed 15 June 2023; IPCC, ‘Small Islands’ in Hans Otto Pörtner and others (eds), *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (CUP 2022) <https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf> accessed 15 June 2023; IPCC, ‘Summary for Policymakers’ in Valérie Masson-Delmotte and others (eds), *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (CUP 2021) <https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf> accessed 15 June 2023; IPCC, *Regional Fact Sheet- Oceans* (IPCC 2021) <https://www.ipcc.ch/report/ar6/wg1/downloads/factsheets/IPCC_AR6_WGI_Regional_Fact_Sheet_Ocean.pdf> accessed 15 June 2023; IPCC, *Regional Fact Sheet - Small Islands* (IPCC 2021) <https://www.ipcc.ch/report/ar6/wg1/downloads/factsheets/IPCC_AR6_WGI_Regional_Fact_Sheet_Small_Islands.pdf> accessed 15 June 2023.

⁵ IPCC, *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate* in Hans-Otto Pörtner and others (eds), (CUP 2019) <https://www.ipcc.ch/site/assets/uploads/sites/3/2022/03/SROCC_FullReport_FINAL.pdf> accessed 15 June 2023.

⁶ Alan Boyle and Catherine Redgwell, *Birnie, Boyle & Redgwell’s International Law and the Environment* (4th edn, OUP 2021), 512.

academic work by leading legal scholars.⁷ One academic put it particularly aptly (emphasis added):

Considering the definition encompasses the introduction of both “substances” and “energy” into the marine environment, *it is difficult to argue in good faith* that GHG emissions from shipping do not constitute “pollution of the marine environment”.⁸

14. Indeed, applying a broad definition of marine pollution would mirror the purposive, evolutionary interpretation that the Tribunal has adopted in previous decisions in respect of the meaning of “protection and preservation of the marine environment”.^{9,10} Moreover, it has long been recognized by the UN that the “control” of marine pollution requires a “flexible” approach.¹¹ We submit that this interpretative precedent enables the Tribunal to find both that GHG emissions fall within the definition of pollution, and that the relevant measures to control such pollution should be construed widely.
15. This is particularly so given that estimates indicate that if GHG emissions are not more stringently regulated, international shipping may be responsible for 10–13% of global emissions in the coming decades.¹² This increase would, inevitably, cause further harm to the marine environment (see also paragraph 44).
16. Chapter 2 has shown that “pollution of the marine environment” includes GHG emissions from ships. We therefore submit that, in answering the COSIS Questions consistently with international law, and in particular question (a), the Tribunal should

⁷ David Testa, ‘Controlling GHG Emissions from Shipping: The Role, Relevance and Fitness for Purpose of UNCLOS’ in Froukje Maria Platjouw and Alla Pozdnakova (eds), *The Environmental Rule of Law for Oceans: Designing Legal Solutions* (CUP 2023), 35–36; Daniel Bodansky, ‘Regulating Greenhouse Gas Emissions from Ships: The Role of the International Maritime Organisation’ in Harry N. Scheiber, Nilufer Oral and Moon-Sang Kwon (eds), *Ocean Law Debates* (Brill | Nijhoff 2018), also available at <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2813785> accessed 15 June 2023; Yoshifumi Tanaka, ‘Regulation of Greenhouse Gas Emissions from International Shipping and Jurisdiction of States’ (2016) 25 *Review of European, Comparative & International Environmental Law* 333, 337–338; Yubing Shi, ‘Are greenhouse gas emissions from international shipping a type of marine pollution?’ (2016) 113(1–2) *Marine Pollution Bulletin* 187, 189–190.

⁸ Testa (n 7) 35.

⁹ See, for example, *Southern Bluefin Tuna (New Zealand v Japan; Australia v Japan)* (Provisional Measures, Order of 27 August 1999) ITLOS Reports 1999, 280, paragraph 70; *Request for Advisory Opinion submitted by the Sub-Regional Fisheries Commission* (Advisory Opinion, 2 April 2015) ITLOS Reports 2015, 4, paragraph 120; see also *Chagos Marine Protected Area Arbitration (Mauritius v United Kingdom)* (Award of 18 March 2015) PCA Case No. 2011-03, RIAA XXI 359, paragraph 538; *The South China Sea Arbitration (The Republic of the Philippines v. The People's Republic of China)* (Award on Jurisdiction and Admissibility of 29 October 2015) PCA Case No. 2013-19, RIAA XXXIII 1, paragraph 284.

¹⁰ Alan Boyle, ‘Further Development of the Law of the Sea Convention: Mechanisms for Change’ (2005) 54 *International & Comparative Law Quarterly* 563, 573–574; Meinhard Doelle, ‘Climate Change and the Use of the Dispute Settlement Regime of the Law of the Sea’ (2006) 37(3–4) *Ocean Development & International Law* 319, 322.

¹¹ ‘Report of the United Nations Conference on the Human Environment, Stockholm, 5–16 June 1972, Annex III: General Principles for Assessment and Control of Marine Pollution’ (1973) UN Doc A/Conf.48/14/Rev.1, 73.

¹² Anthony King, ‘Emissions-free sailing is full steam ahead for ocean-going shipping’ (*Horizon – The EU Research & Innovation Magazine*, 6 September 2022) <<https://ec.europa.eu/research-and-innovation/en/horizon-magazine/emissions-free-sailing-full-steam-ahead-ocean-going-shippping>> accessed 15 June 2023.

clarify the scope and content of the obligations of States Parties, including both flag and port States, under Part XII of UNCLOS, and particularly Articles 194(1), 194(2), 194(3)(b), 211, 212, 217 and 218, to effectively regulate and enforce the regulation of GHG emissions from vessels in order to prevent, reduce and control the deleterious effects in the marine environment that result or are likely to result from climate change.

CHAPTER 3
STATES PARTIES' OBLIGATIONS, INCLUDING WORKING THROUGH THE
COMPETENT INTERNATIONAL ORGANIZATION, THE INTERNATIONAL
MARITIME ORGANIZATION (IMO), IN RESPECT OF VESSEL POLLUTION,
AND INCLUDING THE REGULATION OF GHG EMISSIONS

17. Chapter 3 will set out the States Parties' obligations in respect of GHG emissions from vessels under Part XII of UNCLOS.
- a. Sections I and II first outline how the subsequent analysis of the obligations relating to GHG emissions from vessels under UNCLOS applies to each of the COSIS Questions;
 - b. Section III sets out the specific States Parties' obligations to establish international rules and standards in relation to vessel pollution and outlines the current IMO rules and standards in this regard;
 - c. Section IV shows that those IMO rules and standards are insufficient and not aligned with international legal obligations under the Paris Agreement; and
 - d. Section V argues that States Parties' obligations under Part XII of UNCLOS, being obligations of conduct that require "due diligence", are therefore not discharged through the IMO and States Parties must rectify such non-compliance and (to the extent the IMO standards remain inadequate), act unilaterally or regionally to discharge their obligations under Part XII of UNCLOS.

I. GHGs from International Shipping and the Duty under Part XII to Prevent, Reduce and Control Pollution of the Marine Environment from Climate Change (COSIS Question (a))

18. COSIS Question (a) is as follows:

What are the specific obligations of State Parties to the United Nations Convention on the Law of the Sea ("UNCLOS"), including under Part XII: (a) to prevent, reduce and control pollution of the marine environment in relation to the deleterious effects that result or are likely to result from climate change, including through ocean warming and sea level rise, and ocean acidification, which are caused by anthropogenic greenhouse gas emissions into the atmosphere?

19. Having established in Chapter 2 above that GHGs from vessels constitute "pollution of the marine environment" within the meaning of UNCLOS, Article 194(1) requires States Parties to take all necessary measures to prevent, reduce and control GHG emissions within their jurisdiction. Article 194 provides:

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.

3. The measures taken pursuant to this Part shall deal with all sources of pollution of the marine environment. These measures shall include, *inter alia*, those designed to minimize to the fullest possible extent: [...] (b) pollution from vessels, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, preventing intentional and unintentional discharges, and regulating the design [...]

This requires States to adopt legislative and regulatory measures aimed at eliminating GHG emissions within their jurisdiction. This would *prima facie* include all emissions from vessels over which they have port, flag, or coastal jurisdiction.

20. In discharging the Article 194(1) obligation, States Parties are to use “the best practicable means at their disposal and in accordance with their capabilities”. In addition:
- a. under Article 202, States shall promote assistance to developing States “for the protection and preservation of the marine environment and the prevention, reduction and control of marine pollution”, including, *inter alia*, supplying them with necessary equipment and facilities (Article 202(a)(iii)) and enhancing their capacity to manufacture such equipment (Article 202(a)(iv)); and
 - b. under Article 203, developing States are to be granted preferential treatment in the allocation of appropriate funds and technical assistance for the purposes of prevention, reduction and control of pollution of the marine environment.
21. We submit that, taken together, these Articles:
- a. require States Parties to have regard to equity in discharging their obligations under Part XII of UNCLOS; and
 - b. impose specific obligations on the States Parties to provide, *inter alia*, support, funds, technical assistance, equipment, facilities, and manufacturing capacity to climate vulnerable countries in relation to the marine pollution and climate change impacts resulting from GHG emissions from vessels.
22. In addition to the general obligation under Article 194(1), there are specific obligations in UNCLOS (detailed paragraphs 29–30, 47–56) for States to prevent, reduce and control pollution of the marine environment from vessels (Article 211) and to prevent, reduce and control pollution of the marine environment from or through the atmosphere (Article 212). It is self-evident that vessel emissions may also cause pollution of the marine environment through the atmosphere, and as such, States Parties’ obligations in respect of vessel pollution under Article 211 may likely also be considered obligations in respect of the same under Article 212, as well as under the general obligation in Article 194(1). For the purposes of this Submission, we have

chosen to focus on the specific obligations under UNCLOS relating to vessel pollution, and in particular Article 211, but in doing so we do not intend to restrict our assessment of the relevance of Article 212.

II. GHGs from International Shipping and the General Obligation under Article 192 to Protect and Preserve the Marine Environment from the Impacts of Climate Change (COSIS Question (b))

23. COSIS Question (b) is as follows:

What are the specific obligations of State Parties to the United Nations Convention on the Law of the Sea (“UNCLOS”), including under Part XII: [...] (b) to protect and preserve the marine environment in relation to climate change impacts, including ocean warming and sea level rise, and ocean acidification?

24. Article 192 provides that “States have the obligation to protect and preserve the marine environment” which is a broad substantive obligation. This obligation includes a duty to restore parts of the marine environment or ecosystems that have suffered degradation.¹³ Thus, States have both the positive obligation to take active measures to protect and preserve the marine environment, and the negative obligation to refrain from degrading the marine environment. While this Submission will not detail the dimensions of that obligation beyond how it relates to vessel GHG emissions, we submit that it applies to the current and future condition of the marine environment, and extends to requiring States to take action against vessels which are damaging the marine environment.¹⁴

25. As set out in paragraph 11.c, the best available science makes clear that climate change is causing profound harm to the marine environment. Accordingly, under Article 192 States Parties have a broad obligation to “protect and preserve the marine environment” from climate change and its effects. This is a general duty of due diligence on States Parties to protect and preserve the entire marine environment from the deleterious effects of climate change, in areas both within and beyond national jurisdiction, and regardless of the vector through which those effects occur.

26. We understand that the main COSIS Submission posits that this obligation gives rise to three categories of specific obligations for States:

- a. to take measures to mitigate climate change;
- b. to implement resilience and adaptation measures; and
- c. to take substantive measures to protect marine ecosystems that sequester carbon dioxide.

¹³ *The South China Sea Arbitration (The Republic of The Philippines v. The People’s Republic of China)* (Award of 12 July 2016) PCA Case No. 2013-19, ICGJ 49, paragraph 941.

¹⁴ Testa (n 7) 36–37.

27. We agree with this approach and submit that the obligations under Article 192 require States Parties to take substantive measures to reduce GHG emissions from shipping to mitigate climate change and climate change impacts on the marine environment in addition to and independent of the specific obligations in relation to GHG emissions from shipping under, *inter alia*, Articles 194 and 211.
28. The remainder of Chapter 3 will focus on the specific UNCLOS obligations relating to GHG emissions from vessels to show that the States Parties' obligations referred to in each of the COSIS Questions include the adoption of more stringent emissions regulations in relation to GHG emissions from vessels.

III. States Parties' obligations to establish international rules and standards in relation to vessel pollution acting through the competent international organization or general diplomatic conference

29. In addition to the primary obligation at Article 194(1), Article 211 contains specific obligations in relation to pollution of the marine environment from vessels, which is the main subject of this Submission. Article 211(1) provides that:

States, acting through the competent international organization or general diplomatic conference, shall establish international rules and standards to prevent, reduce and control pollution of the marine environment from vessels [...] Such rules and standards shall, in the same manner, be re-examined from time to time as necessary.

Pursuant to Article 1(1)(4), Article 211(1) applies to GHG emissions from ships (as detailed in Chapter 2 above).

30. The reference in Article 211(1) to "competent international organization" is generally understood to mean the IMO,¹⁵ but it is important to note that there is no stipulation in UNCLOS specifying that the IMO is the only relevant competent international organization.¹⁶ Other appropriate organizations or general diplomatic conferences that could fulfil this role may include, without limitation, the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change ("UNFCCC")¹⁷ and the Paris Agreement, as well as regional organizations such as the EU.
31. Notwithstanding, States Parties have generally accorded the IMO competence with regard to international rules and standards to prevent, reduce and control pollution of the marine environment from vessels. The IMO is the specialized agency of the United Nations responsible for setting global standards for the safety, security, and environmental performance of international shipping. Its main role is to establish a framework for the shipping industry that is fair and effective, universally adopted and

¹⁵ Horace B. Robertson, 'Navigation in the Exclusive Economic Zone' (1983) 24(4) *Virginia Journal of International Law* 865, 899; Daniel M. Bodansky, 'Protecting the Marine Environment from Vessel Source Pollution' (1991) 18 *Ecology Law Quarterly* 719, 726, 740.

¹⁶ Henrik Ringbom, 'Regulating Greenhouse Gases from Ships: Some Light at the End of the Funnel?' in Elise Johansen, Signe Veierud Busch, Ingvild Ulrikke Jakobsen (eds), *The Law of the Sea and Climate Change* (CUP 2021), 148–149.

¹⁷ United Nations Framework Convention on Climate Change (adopted 9 May 1992, entered into force 21 March 1994) 1771 UNTS 107.

universally implemented. We set out below an assessment of the current international rules and standards adopted by the IMO in relation to GHG emissions from ships.

32. To date, the IMO has promoted the adoption of some 50 conventions and protocols and adopted more than 1,000 codes and recommendations concerning maritime safety and security, the prevention of pollution and related matters. The most important maritime environmental convention adopted by IMO is the International Convention on the Prevention of Marine Pollution from Ships (the “MARPOL Convention”).¹⁸
33. In 1997, a new annex was added to the MARPOL Convention. The regulations for the Prevention of Air Pollution from Ships (Annex VI)¹⁹ seek to minimize airborne emissions from ships and their contribution to local and global air pollution and environmental problems. Annex VI entered into force in 2005 and a number of revisions since have added to the regulation of GHG emissions. These include:
34. Energy Efficiency Design Index (“EEDI”):²⁰ Adopted in 2011, EEDI requires new ships to meet a certain technical energy efficiency in their design. However, EEDI has not yet driven efficiency beyond business as usual, nor does it require energy efficiency improvements to reduce emissions to zero by any year.²¹
35. Data Collection System (“DCS”):²² Adopted in 2016, DCS requires all ships to report their fuel oil consumption to their flag State from 2018. The flag State reports the data to the IMO and the IMO produces a report summarizing the data.
36. Energy Efficiency Index for Existing Ships (“EEXI”): Adopted in 2021, together with the Carbon Intensity Indicator (see paragraph 37),²³ it is designed to meet the current IMO goal of a 40% improvement in carbon intensity compared to 2008. EEXI requires ship operators to improve the technical energy efficiency of existing ships to catch up with new ships of same type and deadweight. The policy uses the baseline from the EEDI (see paragraph 34) with a required reduction factor. A 2022 study

¹⁸ The International Convention on the Prevention of Marine Pollution from Ships (adopted 2 November 1973, entered into force 2 October 1983) and its Protocol of 1978 (adopted 17 February 1978, entered into force 1 October 1983) 1340 UNTS 62.

¹⁹ Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (adopted 26 September 1997, entered into force 19 May 2005) TIAS no. 9–108.

²⁰ Resolution MEPC.203(62), ‘2011 Amendments to the Annex of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (inclusion of regulations on energy efficiency for ships in MARPOL Annex VI)’ (adopted 15 July 2011).

²¹ Dan Rutherford, Xiaoli Mao and Bryan Comer, *Potential CO2 reductions under the Energy Efficiency Existing Ship Index* (The International Council on Clean Transportation 2020) <<https://theicct.org/publication/potential-co2-reductions-under-the-energy-efficiency-existing-ship-index/>> accessed 15 June 2023.

²² Resolution MEPC.278(70), ‘2016 Amendments to the Annex of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (Amendments to MARPOL Annex VI)’ (adopted 28 October 2016).

²³ Resolution MEPC.328(76), ‘Amendments to the Annex of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating there to (2021 Revised MARPOL Annex VI)’ (adopted 17 June 2021).

highlights the large gap between potential efficiency and lack of uptake of efficiency technology.²⁴

37. Carbon Intensity Indicator (“CII”): Adopted in 2021 (together with the EEXI, see paragraph 36)²⁵, CII introduces a linear reduction of in-service carbon intensity of ships between 2023 and 2030. Ships are rated from A to E, with A being the most efficient. Ships rating D for three years or E for one year have to submit a plan for how they will improve performance to C or above. Ports are “encouraged” to provide incentives to ships with good rating, however, no enforcement is proposed. Improvement in CII per year of 1% in 2020–2022 and 2% in 2023–2026 is anticipated, but no further reduction factors are set.
38. In addition to these measures, the Initial IMO Strategy on Reduction of GHG Emissions from Ships (“Initial GHG Strategy”) was adopted by the Marine Environment Protection Committee, during its 72nd session (MEPC 72), in April 2018.²⁶ The Initial GHG Strategy sets out the levels of ambition of the Initial GHG Strategy for regulating vessel pollution:
 - a. carbon intensity of international shipping to decline to reduce CO₂ emissions per transport work, as an average across international shipping, by at least 40% by 2030, pursuing efforts towards 70% by 2050, compared to 2008;
 - b. identifying actions to be implemented by the international shipping sector, as appropriate, while addressing impacts on States and recognizing the critical role of international shipping in supporting the continued development of global trade and maritime transport services; and
 - c. to peak GHG emissions from international shipping as soon as possible and to reduce the total annual GHG emissions by at least 50% by 2050 compared to 2008 whilst pursuing efforts towards phasing them out.
39. At the time of this Submission, delegations at the IMO are discussing and developing the regulatory mid-term measures that will reduce international shipping emissions, in line with the agreed emissions targets of the revised Initial GHG Strategy which is due for adoption in July 2023 at MEPC 80.

IV. Inadequacy of the current IMO measures in relation to international legal obligations under the Paris Agreement

40. The Paris Agreement is the preeminent international standard with regard to climate change.²⁷ Climate change is the Paris Agreement’s *raison d’être* and it enjoys near universal state participation, with 194 states and the EU having ratified it. Article 2(1)(a) sets out the limit of:

²⁴ Domagoj Baresic and others, *Closing the Gap: An Overview of the Policy Options to Close the Competitiveness Gap and Enable an Equitable Zero-Emission Fuel Transition in Shipping* (UMAS 2022) <https://www.globalmaritimeforum.org/content/2021/12/Closing-the-Gap_Getting-to-Zero-Coalition-report.pdf> accessed 15 June 2023.

²⁵ MEPC.328(76) (n 23).

²⁶ Resolution MEPC.304(72), ‘Initial IMO Strategy on Reduction of GHG Emissions from Ships’ (adopted 13 April 2018).

²⁷ Alan Boyle, ‘Protecting the Marine Environment from Climate Change’ in Elise Johansen, Signe Veierud Busch, Ulrikke Jakobsen (eds), *The Law of the Sea and Climate Change* (CUP 2021), 102.

Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change.

41. This creates an upper temperature limit which is legally binding on its parties:

The wording “Holding the increase in the global average temperature to well below 2°C above pre-industrial levels ...” formulates a clear upper limit that must be regarded as binding hard law and an obligation of result, not only of conduct. The threshold of “well below 2°C” (emphasis added) is not an entitlement of Parties to exploit the “space” up to 2°C. It is a maximum limit that shall not be reached. The Paris Agreement's temperature goal thus contains strong language of legal effect, leaving no discretion of Parties to follow divergent temperature goals.²⁸

42. We submit that the Paris Agreement is the appropriate reference for the international rules and standards to be adopted under Article 211(1). This is supported *inter alia* by UNCLOS itself and general international law:

- a. Article 237 provides that:

1. The provisions of this Part are without prejudice to the specific obligations assumed by States under special conventions and agreements concluded previously which relate to the protection and preservation of the marine environment and to agreements which may be concluded in furtherance of the general principles set forth in this Convention.

2. Specific obligations assumed by States under special conventions, with respect to the protection and preservation of the marine environment, should be carried out in a manner consistent with the general principles and objectives of this Convention.

- b. Article 31(3)(c) of the Vienna Convention on the Law of Treaties²⁹ provides that in interpreting treaties, “any relevant rules of international law applicable in the relations between the parties” shall be taken into account; and
- c. the finding in the *South China Sea Arbitration* that “other applicable rules of international law” inform the content of the general Article 192 duty.³⁰

²⁸ Estelle Dehon (Cornerstone Barristers), *In the Matter of the UN Framework Convention on Climate Change and in the Matter of the Paris Agreement. Re: Inclusion of emissions from international aviation and shipping in Nationally Determined Contributions* (Transport & Environment 2020) <<https://www.transportenvironment.org/wp-content/uploads/2021/10/Re-Aviation-Shipping-NDC-UPDATED-Legal-Advice-Final-3-5-21-corr-1.pdf>> accessed 15 June 2023.

²⁹ Vienna Convention on the Law of Treaties (adopted 23 May 1969, entered into force 27 January 1980) 1155 UNTS 331.

³⁰ *The South China Sea Arbitration (The Republic of The Philippines v. The People's Republic of China)* (n 13) paragraphs 941–942.

It is therefore well established under international law that the obligations under Part XII of UNCLOS should be interpreted by reference to applicable rules of international law. This includes, in relation to climate change and environmental matters, the Paris Agreement.

43. The temperature limit in the Paris Agreement has also specifically been shown to apply to international shipping. We therefore submit that the Paris Agreement imposes legal obligations on its signatories to reduce international shipping emissions.³¹
44. However, the totality of current IMO measures outlined in paragraphs 32–39 to reduce emissions from shipping having been shown to be consistent with a 3°C global temperature increase. This far exceeds the internationally agreed temperature limit in the Paris Agreement.³² In the words of the UN Secretary-General António Guterres:

While Member States have made some initial steps through the International Civil Aviation Organization and the International Maritime Organization to address emissions from shipping and aviation, current commitments are not aligned with the 1.5°C goal of the Paris agreement. In fact, they are more consistent with warming way above 3°C. [...] Adopting a new set of more ambitious and credible targets that are truly consistent with the goals of the Paris agreement must be an urgent priority for both these bodies in the months and years ahead.³³

45. According to guidance prepared for the maritime transport sector by the Science Based Targets initiative (SBTi)³⁴, for shipping to reduce emissions in line with the Paris Agreement temperature goals, the sector must reduce the total annual GHG emissions on a lifecycle basis (taking into account all greenhouse gas emissions from the production, transportation and use of the fuel) by at least 37% by 2030 and 96% by 2040.³⁵
46. Given the average ship lifespan of 30 years, rules and standards that achieve substantive emission reductions need to be implemented immediately if the international shipping sector is to keep to the Paris Agreement temperature limit and States Parties are to adequately protect the marine environment from GHG emission pollution for current and future generations.

³¹ *ibid.*

³² ‘International Shipping’ (Climate Action Tracker 2021) <<https://climateactiontracker.org/sectors/shipping/>> accessed 15 June 2023.

³³ Fiona Harvey, ‘UN chief urges airlines and shipping firms to do more to cut emissions’ *The Guardian* (London, 14 October 2021) <<https://www.theguardian.com/environment/2021/oct/14/un-chief-urges-airlines-and-shipping-firms-to-do-more-to-cut-emissions>> accessed 15 June 2023.

³⁴ The Science Based Targets initiative (SBTi) is a partnership between the Carbon Disclosure Project, the World Resources Institute, the World Wide Fund for Nature, and the United Nations Global Compact (UN Global Compact). Setting science-based targets via the SBTi is also one of the We Mean Business Coalition commitments. The SBTi is one of the most trusted industry standards: at the end of 2022, more than 4,000 companies covering over a third of the global economy’s market capitalisation, were setting emissions targets or committing to do so via the SBTi.

³⁵ Jean-Marc Bonello and others, *Science Based Target Setting for the Maritime Transport Sector* (SBTi 2023) <<https://sciencebasedtargets.org/resources/files/SBTi-Maritime-Guidance.pdf>> accessed 15 June 2023.

V. States Parties' obligations under Part XII are not discharged by the current IMO rules and standards

47. We submit that the non-alignment of the policies enacted by the IMO in relation to GHG emissions from vessels with the Paris Agreement temperature limit means that the States Parties have failed to properly meet their obligations under Articles 192, 194(1), 194(2), 194(3)(b), 211 and 212.
48. While the IMO has introduced measures aimed at reducing GHGs from vessels (see paragraphs 32–39), the obligations on States Parties under Part XII of UNCLOS are of “conduct”, requiring “due diligence”, rather than obligations of “result”.³⁶ “Due diligence” is an evolutionary concept which has a number of important elements.
49. The obligation of due diligence requires States Parties to “deploy adequate means, to exercise best possible efforts, to do the utmost”.³⁷ The International Court of Justice has held that it entails “not only the adoption of *appropriate* rules and measures, but also a certain level of vigilance in their enforcement” (emphasis added).³⁸ The nature of the enforcement of the due diligence obligation for flag States was clarified by the Tribunal to require taking “all necessary measures to ensure compliance”³⁹ and supported by the Annex VII Tribunal.⁴⁰ Flag State obligations will be considered in more detail at paragraphs 66–71.
50. The Seabed Disputes Chamber also found that the standard of due diligence is not immutable:
- It may change over time as measures considered sufficiently diligent at a certain moment may become not diligent enough in light, for instance, of new scientific [...] knowledge.⁴¹
- As such, any adopted international standards must evolve to remain in line with the best available science on climate change for States Parties' due diligence obligations under Article 211(1) to be effectively discharged.
51. Therefore, for States Parties to UNCLOS to comply with their obligations under Articles 194(1) and 211(1) and effectively exercise due diligence as required by international law, States Parties must, among other things:
- a. adopt international standards for the regulation of GHG emissions from vessels that are (i) appropriate and adequate, and (ii) represent States Parties exercising best possible efforts and doing their utmost;
 - b. update such international standards to reflect evolving scientific knowledge; and

³⁶ *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion, 1 February 2011) ITLOS Reports 2011, 10, paragraph 110.

³⁷ *ibid.*

³⁸ *Pulp Mills on the River Uruguay (Argentina v Uruguay)* (Judgment) [2010] ICJ Rep 14, paragraph 187.

³⁹ *Request for Advisory Opinion submitted by the Sub-Regional Fisheries Commission* (n 9).

⁴⁰ *The South China Sea Arbitration (The Republic of The Philippines v. The People's Republic of China)* (n 13) paragraph 944.

⁴¹ *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (n 36) paragraph 117.

- c. undertake all necessary measures to ensure compliance with such international standards.
52. While the IMO is the specialized agency for international shipping, States Parties cannot consider their due diligence obligations discharged by the fact of the IMO having adopted certain international standards on GHG regulation. States Parties must exercise their due diligence obligations to ensure that such international standards are appropriate and adequate (particularly in view of the latest scientific knowledge) and must ensure that such international standards are properly complied with and enforced.
 53. For States Parties to properly discharge their due diligence obligations in relation to the international rules and standards adopted pursuant to Article 211, it is submitted that those rules and standards must align with the temperature limit set out in Article 2(1)(a) of the Paris Agreement such that they adequately and appropriately prevent, reduce and control GHG emissions from vessels.
 54. As shown in section IV above, the current IMO standards and rules do not align with the Paris Agreement temperature limit and, accordingly, States Parties' obligations in relation to preventing, reducing and controlling GHG emissions from ships under Part XII have not been effectively discharged through the IMO. Therefore, we submit that:
 - a. The States Parties should, in compliance with Article 211(1), adopt stringent international rules and standards in relation to GHG emissions from vessels that align with the Paris Agreement temperature limit (through the competent international organization or the general diplomatic conference);
 - b. Moreover, and in the alternative, States Parties can, and should, adopt more stringent standards unilaterally (or regionally) in order to discharge their obligations under Part XII of UNCLOS, as explained further in paragraphs 55–56.
 55. In respect of paragraph 54.b, UNCLOS does not prevent States Parties from regulating unilaterally or regionally:
 - a. It is clear from Article 237 that whilst specific obligations under other conventions and agreements relating to the protection and preservation of the marine environment should be consistent with the general principles and objectives of UNCLOS, Part XII of UNCLOS does not prohibit States Parties from adopting more stringent standards.
 - b. Further, the wording in Article 212(1) requires States Parties to adopt laws and regulations to prevent, reduce and control pollution of the marine environment from or through the atmosphere as a standalone obligation, “taking into account” internationally agreed rules, standards and recommended practices and procedures. We note that to “take into account” implies no obligation beyond that of consideration, and as such Article 212(1) does not require States Parties to apply, *mutatis mutandis*, the standards agreed at international level; they have discretion to adopt more stringent standards than those agreed at international level in order to meet their UNCLOS obligations.

- c. Article 211(1) does not restrict competence in this area to the IMO, and as such States Parties could work through other international and regional organizations such as the UNFCCC or the EU to agree appropriate standards.
56. Moreover, on the basis of the inadequacy of the existing IMO standards (see paragraphs 32–39), we submit that States Parties **must** adopt more stringent measures if they are to meet each of their obligations under Article 192 to protect and preserve the environment, Article 194 to take all necessary measures to prevent, reduce and control pollution of the marine environment, and Article 212 to adopt laws and regulations to prevent, reduce and control pollution of the marine environment from or through the atmosphere. Chapter 4 below sets out States Parties’ obligations to unilaterally adopt stringent regulations on GHG emissions from ships.
57. This Chapter 3 has shown, in summary, that:
- a. Article 194(1) requires States Parties to adopt measures aimed at eliminating GHG emissions, as a form of vessel pollution, within their jurisdiction, having regard to equity;
 - b. Article 192 requires States Parties to take substantive measures to reduce GHG emissions from ships as a means of mitigating climate change impacts on the marine environment, and in accordance with their due diligence obligations;
 - c. Article 211(1) places a specific obligation on States Parties to establish international rules and standards to meet the Article 194(1) obligation through the competent international organization or general diplomatic conference. States Parties have historically worked through the IMO to establish such standards, but this body is not prescribed by UNCLOS;
 - d. the Paris Agreement temperature limit is the appropriate standard for the rules and standards adopted by the IMO in relation to GHG emissions from vessels. The current IMO measures are inadequate and not aligned with international legal obligations;
 - e. States Parties’ obligations under Part XII of UNCLOS are obligations of conduct which require “due diligence” and therefore are not discharged to the extent the IMO rules and standards are inadequate; and
 - f. accordingly, States Parties are obliged to adopt adequate standards (either through the competent international organization, usually considered to be the IMO, or general diplomatic conference) and, to the extent that the IMO rules and standards are inadequate, are obliged to act unilaterally or regionally to discharge their obligations in relation to GHG emissions from vessels.

CHAPTER 4

UNCLOS AUTHORITY TO REGULATE

58. Having established in Chapter 3 above that the IMO has not implemented measures which discharge States Parties' obligations under Part XII of UNCLOS, this Chapter analyses the mechanisms Parties can and should use within the UNCLOS regime to do so.
59. There are three types of jurisdictions over vessels under UNCLOS: coastal State, flag State, and port State, which are analysed in turn below in terms of their appropriateness as a legal basis on which to regulate.

I. Coastal State jurisdiction

60. Coastal State jurisdiction applies in two key areas: the coastal State's territorial sea (up to 12 miles from shore) (Article 3) and the coastal State's exclusive economic zone (from the boundary of the territorial sea up to 200 miles from shore) (Article 57).

61. In relation to its territorial sea, the coastal State enjoys sovereignty pursuant to Article 2. Regarding passage through its territorial sea, Article 21(1)(f) provides that the coastal State:

may adopt laws and regulations, in conformity with the provisions of this Convention and other rules of international law [...] in respect of [...] the preservation of the environment of the coastal State and the prevention, reduction and control of pollution thereof

Article 211(4) provides that, in exercise of its sovereignty within its territorial sea, the coastal State may adopt laws and regulations for the prevention, reduction and control of marine pollution from foreign vessels (but such laws and regulations shall not hamper innocent passage of foreign vessels).

62. In relation to its exclusive economic zone, Article 56(1)(b)(iii) provides that the coastal State has:

jurisdiction as provided for in the relevant provisions of this Convention with regard to the protection and preservation of the marine environment.

Article 211(5) provides that:

Coastal States, for the purpose of enforcement as provided for in section 6, may in respect of their exclusive economic zones adopt laws and regulations for the prevention, reduction and control of pollution from vessels conforming to and giving effect to generally accepted international rules and standards established through the competent international organization or general diplomatic conference.

63. The permissive language of the Articles conferring coastal State jurisdiction means that those Articles do not themselves impose any obligations on coastal States to regulate pollution of the marine environment.

64. Coastal State jurisdiction also has limitations for any State Party that wished to use such jurisdiction to discharge its general Part XII obligations under Articles 192 and 194(1). Whilst coastal State jurisdiction is broad within its territorial sea, its jurisdiction to regulate is much more limited in its exclusive economic zone to “generally accepted international rules and standards established through the competent international organization” (Article 211(5)). Moreover, coastal State jurisdiction does not extend beyond the limits of the exclusive economic zone.
65. As such, we consider that the limited jurisdiction of coastal State authority is largely insufficient to provide an effective avenue for the reduction of vessel pollution from international shipping in line with the States Parties’ obligations under Part XII of UNCLOS.

II. Flag State jurisdiction

66. Flag State jurisdiction is often considered the primary basis for the regulation of ships. Article 92(1) stipulates:
- Ships shall sail under the flag of one State only and, save in exceptional cases expressly provided for in international treaties or in this Convention, shall be subject to its exclusive jurisdiction on the high seas. [...]
67. Article 211(2) provides:
- States shall adopt laws and regulations for the prevention, reduction and control of pollution of the marine environment from vessels flying their flag or of their registry. Such laws and regulations shall at least have the same effect as that of generally accepted international rules and standards established through the competent international organization or general diplomatic conference.
68. States Parties can therefore regulate pollution from vessels flagged in their countries without restriction.⁴² Moreover, as Article 211(2) sets only an obligatory minimum (in that the laws and regulations must have *at least the same* effect as that of generally accepted international rules and standards) it confers discretion on flag States to adopt more onerous standards. To the extent that such generally accepted international rules and standards are inadequate to discharge the States Parties’ due diligence obligations (as argued in paragraphs 47–54, where those standards are understood to be those adopted by the IMO) and therefore do not satisfy the requirements of Articles 192 and 194(1), it is our Submission that flag States should impose more stringent laws and regulations under Article 211(2) in order to prevent, reduce and control pollution of the marine environment to the required standard.
69. Moreover, pursuant to Article 217(1), flag States are required to “provide for the effective enforcement” of their laws and regulations adopted for the prevention,

⁴² Alyssa Kutner and Meredith Wilensky ‘Flag State Regulation of Greenhouse Gas Emissions: Regulatory Authority of Flags of Convenience and Franchised Registries’ (Sabin Center for Climate Change Law 2014) <https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=1137&context=sabin_climate_change> accessed 15 June 2023.

reduction and control of pollution of the marine environment from vessels, irrespective of where such violation occurs.

70. UNCLOS therefore gives flag States broad powers to both regulate marine pollution from ships as well as to enforce those regulations effectively. We submit that it would be helpful for the obligations of flag States in this regard (in relation to GHG emissions from ships) to be clarified so that it is clear that Part XII obligations requires flag States to impose and enforce more stringent laws and regulations than those currently agreed at the IMO.
71. However, we also recognise that in practical terms flag State enforcement alone is likely insufficient to remedy high seas pollution. Port State jurisdiction has consequently emerged as a more practical compliance route.⁴³

III. Port State jurisdiction

72. Ports are usually located within the territory of a state and are therefore subject to the state's territorial sovereignty pursuant to Article 2(1), Article 8, Article 11 and Article 12. The sovereignty of a State over its internal waters is stated in Article 2(1) and it follows from Articles 8, 11 and 12 that ports form part of those waters. This gives the port State jurisdiction over all vessels therein.
73. In addition, Article 211(3) recognises the prescriptive right for States to impose conditions on ships' right of entry into ports. It outlines that States may:
- [...] establish particular requirements for the prevention, reduction and control of pollution of the marine environment as a condition for the entry of foreign vessels into their ports or internal waters or for a call at their off-shore terminals [...]
74. This reflects the customary law right for states to govern their sovereign territory. The only restrictions on the exercise of this right reflect general principles of non-discrimination, good faith and non-abuse of right (Articles 227 and 300), and certain procedural requirements of due publicity and communication to the competent international organization (Article 211(3)).
75. States also have wide discretion to enforce these entry conditions; we address these in paragraphs 84–85 below. It is important to note that port access conditions are based on ships' voluntary presence in port. This “subjects [the ship] to the essentially unlimited territorial jurisdiction of the port State under general international law.”⁴⁴
76. In establishing any port State conditions for entry, Article 227 provides that States “shall not discriminate in form or in fact against vessels of any other State.” This has been recognised by the IMO in respect of the regulation of GHG emissions. The IMO acknowledges that any such regulation must not discriminate between ships based on flag State but considers that port States can consider “appropriate differences” that are based on such factors as ship type, structure, manning and operational features.⁴⁵

⁴³ Boyle and Redgwell (n 6) 544.

⁴⁴ Henrik Ringbom, *The EU Maritime Safety Policy and International Law* (Brill | Nijhoff 2008), 214.

⁴⁵ MEPC 58/4/20, ‘Legal Aspects of the Organization's Work on Greenhouse Gas Emissions in the Context of the Kyoto Protocol’ (1 August 2008).

77. It is recognised that port State access conditions may even have consequences for conduct, or static measures (such as Construction, Design, Equipment and Manning standards (“CDEMs”)) on the high seas as a natural corollary:
- The ‘extraterritorial’ effects of port access conditions concerning CDEMs are purely incidental since these standards by their very nature cannot exclusively apply when the ship is in port, but necessarily extend to vessels before entry. Presumably, when foreign ships decide to operate in a particular country or region they accept the sovereignty of the port State and implicitly agree to comply with its higher safety and environmental standards, including CDEMs.⁴⁶
78. This incidental extraterritorial effect is not a restriction on port State authority if the access conditions are implemented in pursuit of Part XII obligations. The Tribunal in the *South China Sea Arbitration* recognised both that the “obligations in Part XII apply to all States with respect to the marine environment in all maritime areas, both inside the national jurisdiction of State and beyond it”, and that “questions of sovereignty are irrelevant to the application of Part XII of the Convention”.⁴⁷
79. Port State jurisdiction is already being used to regulate environmental matters. The Paris Memorandum of Understanding on Port State Control (“Paris MoU”)⁴⁸ is a regional body that regulates environmental matters in European waters. It distinguishes between vessels according to non-discriminatory bases, such as ship type, and is regarded as a worldwide index of flag State performance in respect of safety, security, personnel and environmental standards. It is used by State authorities to determine which ships merit additional scrutiny upon arrival in Paris MoU member ports. The Paris MoU has direct relevance to the issue of GHG regulation as it provides a precedent for States to distinguish between necessary operational features to regulate emissions criteria.
80. Indeed, port State sovereignty is often recognised as a regulatory means in IMO agreements themselves. The most recent example of this is the MEPC 77 Resolution on Protecting the Arctic from Shipping Black Carbon Emissions⁴⁹ which encourages Member States of the IMO as follows:
- [...] to commence addressing the threat to the Arctic from Black Carbon emissions, and report on measures and best practices to reduce Black Carbon emissions from shipping.
81. This is a call for States to enact their own national measures to tackle emissions in a particularly sensitive ecosystem, which may not be in their territory. Importantly, it was not directed solely at Arctic Member States (using, for instance, the coastal State

⁴⁶ Veronika Frank, *The European Community and Marine Environmental Protection in the International Law of the Sea: Implementing Global Obligations at the Regional Level* (Martinus Nijhoff Publishers 2007), 213.

⁴⁷ *The South China Sea Arbitration (The Republic of The Philippines v. The People’s Republic of China)* (n 13) paragraph 940.

⁴⁸ ‘Paris Memorandum of Understanding on Port State Control’ (including 44th Amendment, adopted 20 May 2022, effective date: 1 July 2022).

⁴⁹ Resolution MEPC.342(77), ‘Protecting the Arctic from Shipping Black Carbon Emissions’ (adopted 26 November 2021).

powers under Article 234), but at all IMO Member States, suggesting reliance on port State and flag State jurisdiction. Indeed, a port State could, for example, impose a penalty on any ship calling at its ports that used heavy fuel oil in the Arctic in the previous calendar year, regardless of whether that regulating port state was an Arctic State or not.

82. Whilst a port State's right to regulate GHG emissions from ships as a condition of port entry is discretionary under Article 211(3), we submit that port States are obliged to regulate GHG emissions from ships in order to satisfy their obligations under Articles 192 and 194(1) and Article 212 (and in particular, where the international rules and standards adopted under Article 211(1) are non-existent or insufficient).
83. Finally, port States are given the right to take enforcement measures as necessary to uphold the conditions attached to port access and there is no restriction on such powers in UNCLOS.

IV. Enforcement as a port State

84. Port States enjoy broad enforcement powers under UNCLOS:
 - a. Article 25(2) gives States:

the right to take the necessary steps to prevent any breach of the conditions to which admission of those ships to internal waters or such a call [at port] is subject.

This explicitly allows States to take such enforcement measures as they see necessary to uphold the conditions attached to port access, and there is no restriction on such powers in UNCLOS;
 - b. Article 194(1) recognises that States have the power to take, individually or jointly, all measures consistent with the Convention that are necessary to prevent, reduce and control pollution of the marine environment from any source. We submit that this provision should be interpreted as including enforcement measures;
 - c. Article 212(2) provides that States "shall take other measures as may be necessary to prevent, reduce and control" pollution of the marine environment from or through the atmosphere; and
 - d. Article 218(1) provides:

When a vessel is voluntarily within a port or at an off-shore terminal of a State, that State may undertake investigations and, where the evidence so warrants, institute proceedings in respect of any discharge from that vessel outside the internal waters, territorial sea or exclusive economic zone of that State in violation of applicable international rules and standards established through the competent international organization or general diplomatic conference.

Proceedings can be instituted by any State whose internal waters, territorial sea or exclusive economic zone are affected or likely to be affected by pollution (Article 218(2)).

85. The range of enforcement measures that can be taken by a port State include:⁵⁰
- a. inspection and requests for information;
 - b. refusal of access to the port (or port services);
 - c. banning the ship from returning to port;
 - d. refusing to land or process cargo;
 - e. detention of a vessel;
 - f. fines, penalties, confiscation of cargo; and
 - g. prosecution for violation of the regulation.
86. As set out above in paragraph 49, States Parties' due diligence obligations require them to exercise vigilance in the enforcement of rules and standards adopted under UNCLOS. Thus, port States are obliged to ensure appropriate enforcement of the regulations they should adopt to discharge their obligations under Articles 192, 194(1) and 211(1) (see paragraph 82).
87. In paragraphs 84–86, we have shown that compliance with the obligations under Part XII of UNCLOS relating to GHG emissions from ships can be lawfully and practicably enforced by port States. We submit that port States are required to undertake enforcement action to discharge their obligations under Part XII of UNCLOS (in particular Articles 192 and 194(1)). However, the nature of the due diligence obligation of port and flag States has not been specifically addressed by the Tribunal or any other international court or tribunal. We submit that it would be helpful for the Tribunal to provide clarification on the nature of the enforcement obligations for flag and port States under Articles 217 and 218 in the context of standards for GHG emissions from vessels.

⁵⁰ Erik J. Molenaar, 'Port and Coastal States' in Donald R. Rothwell and others (eds), *The Oxford Handbook of the Law of the Sea* (OUP 2015), 289.

CHAPTER 5 CONCLUSION

88. Opportunity Green has made this Submission to assist the Tribunal in answering the COSIS Questions. Given Opportunity Green's expertise in international shipping and the IMO, this Submission has focussed specifically on one aspect of the questions submitted to the tribunal, namely the obligations of States Parties in relation to GHG emissions from vessels.
89. Broadly, our Submission has argued that UNCLOS requires States Parties to adopt stringent standards on vessel pollution either domestically, in concert with other States Parties, or through the competent international organization to ensure compliance with the temperature limit in the Paris Agreement.
90. This Submission has shown that:
 - a. GHG emissions fall within the definition of "pollution of the marine environment" under Article 1(1)(4) and therefore the associated Part XII obligations apply to GHG emissions from vessels;
 - b. States Parties' due diligence obligations require States Parties to ensure the adequacy and enforcement of international rules and standards on pollution of the marine environment by vessels;
 - c. the international rules and standards adopted under the IMO are not aligned with the international legal obligations under the Paris Agreement and as such States Parties are in breach of their obligations under Part XII of UNCLOS;
 - d. States Parties can, and should, take unilateral or regional action to satisfy their obligations to the extent that international rules and standards remain insufficient; and
 - e. in particular, flag and port States have obligations to regulate GHG emissions from vessels and enforce such regulations, and port State jurisdiction in particular provides an effective mechanism under which States Parties can discharge their obligations under Part XII of UNCLOS.
91. We respectfully ask that the Tribunal considers the matters set out in this Submission and clarifies in its opinion the States Parties' obligations in relation to GHG emissions from ships specifically.

Opportunity Green
15 June 2023