

Re: International Tribunal for the Law of the Sea - Case no. 31 - Request for an advisory opinion submitted by the Commission of Small Island States on climate change and international law

INTRODUCTION

1. Pursuant to Order 2023/1 of 15 February 2023 issued by the President of the International Tribunal for the Law of the Sea, the Advisory Committee on Protection of the Sea (ACOPS; www.acops.org.uk)¹, respectfully requests acceptance by the International Tribunal for the Law of the Sea, as an *amicus curiae* brief, of the following written statement on the questions presented to the International Tribunal for the Law of the Sea by the Commission of Small Island States in the above-mentioned Case no. 31.

2. The questions are presented immediately below, *verbatim*, for ease of reference.

“What are the specific obligations of State Parties to the United Nations Convention on the Law of the Sea (the "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?

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

3. This *amicus curiae* brief focuses on three main points that answer the questions posed. First: the UNCLOS is applicable to anthropogenic Greenhouse Gas Emissions (GHG) from any

¹ The ACOPS is a non-governmental organization (NGO) that informs, advises and engages to achieve sustainable seas consistent with international law and sound science. An early mover on the protection of the marine environment, the ACOPS was established in March 1952 in London, by Member of Parliament the Honourable James Callaghan, who later became Prime Minister of the United Kingdom and then Lord Callaghan. Recognizing that marine environmental issues are addressed most effectively at a global scale, he initiated the negotiation and adoption of the International Convention for the Prevention of Pollution of the Sea by Oil on 12 May 1954 (OILPOL). The ACOPS has participated in intergovernmental initiatives to protect and preserve the marine environment, including the UN Convention on the Law of the Sea, ever since. It has consultative observer status with intergovernmental bodies that include the Arctic Council, the OSPAR Convention, the International Maritime Organization, the International Seabed Authority and the London Convention and Protocol. It also participates in other marine intergovernmental meetings and initiatives, such as the Lisbon UN Ocean Conference 2022, the Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) (as observer and working group member), and the Ad-Hoc Open-Ended Expert Working Group (OEWG) on marine litter and microplastics, as appropriate to its mission and expertise. The ACOPS is a registered UK charitable company (Charity no. 290776, Company House no. 01867863); its history, activities and achievements are available at: www.acops.org.uk.

source. Second: the climate crisis cannot be solved without the UNCLOS, which must be applied together with the UN Framework Convention on Climate Change (UNFCCC)² regime. Third: the UNCLOS, as the keystone of the global regime on the protection and preservation of the marine environment, provides specific criteria lacking under the UNFCCC regime to develop and enforce required response strategies and measures. This brief seeks to be comprehensive but not exhaustive. As the effects of anthropogenic GHG emissions affect human activities directly or indirectly, as well as the marine environment as a whole, specific circumstances resulting from these emissions that adversely affect the marine environment may also trigger the application of provisions not addressed herein.

THE UNCLOS APPLIES TO ANTHROPOGENIC GHG EMISSIONS

4. Part XII of the UNCLOS is specifically dedicated to the protection and preservation of the marine environment. In addition, provisions addressing marine environmental protection are found throughout the UNCLOS, beginning with Article 1, that defines ‘pollution of the marine environment.’³

5. Article 192 of the UNCLOS, the first Article of Part XII, states the legal requirement: “States have the obligation to protect and preserve the marine environment.” Attention is drawn to the mandatory language, namely “have the obligation,”⁴ and to the absence of any exceptions and qualifications that weaken, negate or otherwise render this obligation unenforceable *de jure* and/or *de facto*.⁵ This obligation applies throughout the entire marine environment, regardless of

² Adopted 9 May 1992, in force 21 March 1994, 1771 *UNTS* 107.

³ Part I, Introduction, Article 1, *Use of terms and scope*, 1. (4). See also paragraph 7 of the present brief, *infra*.

⁴ “Although phrased in general terms, the Tribunal considers it well established that Article 192 does impose a duty on States Parties, the content of which is informed by the other provisions of Part XII and other applicable rules of international law. This ‘general obligation’ extends both to ‘protection’ of the marine environment from future damage and ‘preservation’ in the sense of maintaining or improving its present condition. Article 192 thus entails the positive obligation to take active measures to protect and preserve the marine environment, and by logical implication, entails the negative obligation not to degrade the marine environment. The corpus of international law relating to the environment, which informs the content of the general obligation in Article 192, requires that States ‘ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control.’” *Republic of the Philippines v People’s Republic of China on the South China Sea (SCS)*, PCA 2013-19 [the SCS Arbitration Case], Arbitral Award of 12 July 2016, at para. 941.

⁵ For an example of such weakening language in an international multilateral treaty, see the 1992 Convention on Biological Diversity (adopted 5 June 1992, in force 29 December 1993, 1760 *UNTS* 79) [CBD], where nearly every “shall” is followed by the qualification “as far as possible and as appropriate.” See A. Boyle and C. Redgwell, *Birnie, Boyle, and Redgwell’s International Law and the Environment: 4th Revised edition* (Oxford University Press, Oxford, 2021); P. Verlaan, ‘The Interface of Science and Law: A Challenge to the Privileging of “Marine Biodiversity” over “Marine Environment”,’ in R. Barnes and R. Long (eds), *Frontiers in International Environmental Law: Oceans and Climate Challenges: Essays in Honour of David Freestone*, (Brill, Leiden, 2021), pp. 409-429 (<https://brill.com/view/title/38675?language=en>) [open access].

its jurisdictional status, and therefore in all the maritime zones⁶ defined by the UNCLOS.

6. Part XII sets out how States must⁷ implement and enforce their obligation under Article 192 to protect and preserve the marine environment, including requiring that: “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*”⁸ (Emphasis supplied.) Note the comprehensive scope of “from any source.” This includes “*all*”⁹ marine-based sources of pollution of the marine environment.¹⁰ However – and most importantly for the climate change discussion to follow – it also includes all sources of pollution from the land¹¹ and from or through the atmosphere.¹²

7. The definition in the UNCLOS of “pollution of the marine environment”¹³ is characterised by its comprehensive scope (“substances or energy”) and methods (“directly or indirectly”), precautionary language (“results or is likely to result”), and the extensive, varied and non-exhaustive list of activities and effects-based criteria. There is no doubt that anthropogenic GHG emissions resulting in, e.g., “ocean warming and sea level rise, and ocean acidification,” as set

⁶ SCS Arbitration Case (*supra* note 4), at para. 940: “the Tribunal notes 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 States and beyond it.” See also Request for Advisory Opinion submitted by the Sub-Regional Fisheries Commission (SRFC), Advisory Opinion, 2 April 2015 [ITLOS Case 21], ITLOS Reports 2015, p. 4, at para. 120.

⁷ The operative term in international law for a mandatory action, as also used for this purpose in the UNCLOS, is ‘shall.’ ‘Must’ is used in this brief to avoid confusion or misunderstanding as to the mandatory nature of the word ‘shall.’

⁸ UNCLOS Article 194(1).

⁹ “[a]ny source” is further reinforced by the use of the word “all” in UNCLOS Article 194(3): “The measures taken pursuant to this Part shall deal with all sources of pollution of the marine environment.”

¹⁰ Examples of such different sources include: dumping (e.g., Arts. 194(3)(a), 210, 216); vessels (e.g., Arts. 194(3)(b), 211); use of technologies, various types of installations and devices (e.g., Arts. 194(3)(c) and (d)); seabed activities subject to national jurisdiction (e.g., Arts. 208, 214); activities in the Area (e.g., Arts. 209, 215 and relevant Articles from Part XI, especially Art. 145).

¹¹ UNCLOS Articles 207, 213. See also Art. 194(3)(a) for a specific example of required measures to be taken with regard to the release of specified substances from land-based sources.

¹² UNCLOS Articles 212, 222. See also Art. 194(3)(a) for a specific example of required measures to be taken with regard to the release of specified substances from or through the atmosphere.

¹³ UNCLOS Article 1(1)(4): “‘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;” ... Note that these deleterious effects are not restricted to effects on the marine environment alone, as attested by, e.g., the examples of human health, living resources (i.e., not just marine living resources) and amenities given in this Article.

out in the first question, among other deleterious effects, such as ocean deoxygenation¹⁴ and noise amplification¹⁵, fall within this definition of pollution.¹⁶

8. Including the land and the atmosphere in the sources of pollution of the marine environment governed by the Convention expands the nature and geographic scope of actions mandated by the Convention to prevent, reduce and control these sources. Three examples are given here. First, States are “to 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.” Second, States must ensure 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” (emphasis supplied).¹⁷ Third, these measures must not “transfer, directly or indirectly, damage or hazards from one area to another or transform one type of pollution into another.”¹⁸

9. Consider the legal implications under international law for State responsibility of “*from any source*” and “*activities under their jurisdiction or control*”. All activities and sources of pollution from anywhere in the world that result in or are likely to result in the occurrence of one or more of the circumstances on the (non-exhaustive) list of “deleterious effects” in Article 1(1)(4) are subject to the UNCLOS. They must be prevented, reduced and controlled.

10. Attention is drawn to the required priority order (prevent, reduce and control) defining the nature of the measures to be taken, and especially to the crucial absence of the word “or.” Prevention, reduction, and control are not alternative courses of action.

¹⁴ Oschlies, A., Brandt, P., Stramma, L., & Schmidtko, S. (2018). Drivers and mechanisms of ocean deoxygenation. *Nature Geoscience* 11(7):467-473; Keeling, R. F., Körtzinger, A., & Gruber, N. (2010). Ocean deoxygenation in a warming world. *Annual Review of Marine Science* 2:199-229.

¹⁵ Hester, K. C., Peltzer, E. T., Kirkwood, W. J., & Brewer, P. G. (2008). Unanticipated consequences of ocean acidification: A noisier ocean at lower pH. *Geophysical Research Letters*, 35(19);

<https://doi.org/10.1029/2008GL034913>; Ilyina, T., Zeebe, R. E., & Brewer, P. G. (2010). Future ocean increasingly transparent to low-frequency sound owing to carbon dioxide emissions. *Nature Geoscience*, 3(1):18-22. <https://doi.org/10.1038/ngeo719>.

¹⁶ Intergovernmental Panel on Climate Change (IPCC), 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. A Report of the Intergovernmental Panel on Climate Change. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. (IPCC, Geneva, Switzerland), 36 pages (in press); available online at: <https://www.ipcc.ch/report/sixth-assessment-report-cycle/>.

¹⁷ UNCLOS Article 194(2). Attention is drawn to the absence of the word ‘marine’ in this Article. It applies to the **whole** environment of “other States”, to **all** activities and incidents under State jurisdiction or control and/or to where States exercise sovereign rights – i.e., to the relevant parts of the sea, land and atmosphere.

¹⁸ UNCLOS Article 195.

11. Attention is further drawn to the requirement that the measures must “include those necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life.”¹⁹ Finally, Article 235 of the UNCLOS sets out State responsibility, liability, recourse and compensation requirements to further underpin its marine environmental protection regime.

12. The UNCLOS specifically conditions and limits the “sovereign right of States to exploit their natural resources” by requiring this exploitation to be conducted “in accordance with their duty to protect and preserve the marine environment.”²⁰ Note that these environmental obligations are considered as reflecting or as having acquired the status of customary international law:²¹ they therefore also apply to all States, including those that are not Parties to the UNCLOS. We draw particular attention to the directly applicable requirements for State action at an internal, national level,²² irrespective of the lack of additional developments at international level.

13. The UNCLOS is uniquely powerful, environmentally speaking. In this respect no other international treaty imposes clear, specific, unqualified, and enforceable environmental protection requirements with regard to the effects of human actions from land, air and sea on the marine environment. Yet the global community of nations continues to act as if protecting the marine environment, let alone the global environment, is legally optional. It is not. This erroneous assumption is exemplified in the approach taken since the adoption of the UNFCCC and its subsequent instruments to the issue of anthropogenic GHG emissions, as described below.

ADDRESSING THE CLIMATE CRISIS REQUIRES THE UNCLOS

14. The many adverse environmental effects of anthropogenic GHG emissions have long been known and are increasingly observed worldwide. These GHG emissions are the direct root cause of the climate crisis currently threatening the health and wellbeing of our planet. However, in assessing the applicability of the UNCLOS to address the adverse effects of anthropogenic GHG emissions on the marine environment, using the term ‘climate change’ risks confusion. Not all deleterious effects of increasing GHG concentrations in the atmosphere and in the ocean are directly attributable to a manifestation of climate change. These effects are not addressed by the global climate treaty regime developed under the UNFCCC. Examples of such critical deleterious

¹⁹ UNCLOS Article 194(5). This Article protects marine biodiversity, and much else besides, without qualifications or exceptions. See Verlaan, *op. cit. supra*, note 5.

²⁰ UNCLOS Article 193.

²¹ R.R. Churchill and A.V. Lowe, *The Law of the Sea*, 3rd edition (Juris Publishing, Manchester University Press, Manchester, 1999); Boyle and Redgwell, *op. cit. supra*, note 5.

²² Requiring individual State action at national level is found in, e.g., Part XII of the UNCLOS in Article 235(2), the whole of Section 5, International Rules and *National* Legislation to Prevent, Reduce and Control Pollution of the Marine Environment (emphasis supplied) and Section 6, Enforcement.

effects include: ocean warming, deoxygenation, noise amplification and ocean acidification; the latter results directly from an increase in CO₂ concentration in the ocean.

15. The UNFCCC aims to “stabilise GHG concentrations in the atmosphere at a level that would prevent dangerous interference with the climate system”.²³ However, despite the critical role of the oceans in regulating the earth’s climate and the adverse effects of anthropogenic GHG emissions on the marine environment, as well as the threats they create for human well-being, the oceans, as well as coastal and marine ecosystems, are mentioned only in one operative provision - Article 4(1)(d) - and once in the preamble. Furthermore, Article 4(1)(d) on the conservation and enhancement of sinks and reservoirs, including oceans and coastal and marine ecosystems, does not provide any guidance on means for its implementation. By contrast, the UNCLOS does; it applies to sinks and reservoirs in the marine environment, including seagrass beds, mangrove areas and saltmarshes.²⁴ Furthermore, the rules of interpretation of the meaning of a treaty must be informed by the other provisions of that treaty and other applicable rules of international law at the time of the interpretation of the application.²⁵ The UNFCCC regime therefore must rely on the UNCLOS for its extensive provisions relating to the marine environment and those that may be applicable to sinks and reservoirs in the marine environment that must be complied with (e.g., in the context of national contributions and accounting including such sinks and reservoirs under Article 6 of the Paris Agreement²⁶).

16. The UNCLOS requires the necessary actions to prevent, reduce and control all sources of pollution of the marine environment with clear, enforceable language, and its legal mandate is binding and enforceable on States. Because anthropogenic GHG emissions fall squarely within the UNCLOS definition of pollution of the marine environment,²⁷ States must act in accordance

²³ UNFCCC Article 2.

²⁴ These are part of the marine environment, as well as falling within the criteria for, e.g., special protective and preservation measures pursuant to Article 194(5) of the UNCLOS.

²⁵ Article 31(c), Vienna Convention on the Law of Treaties (adopted 23 May 1969, in force 27 January 1980) 1155 UNTS 331 [VCLT]. See A. Boyle (2005) ‘Further Developments of the Law of the Sea Convention: Mechanisms for Change,’ *The International and Comparative Law Quarterly* (54)3:563-584 and supporting references therein; *Namibia Advisory Opinion* [1971] ICJ Rep 16, 31; *Aegean Sea Continental Shelf Case* [1978] ICJ Rep 3, 32–33. See also *Bankovic v Belgium* (2002) 41 ILM 517, paras 55–66; *Al-Adsani v UK* (2001) 123 ILR 24; *Fogarty v UK* (2001) 123 ILR 54; *McElhinney v Ireland* (2001) 123 ILR 73. The approach by the International Court of Justice [ICJ], combining both an evolutionary and an intertemporal element, reflects the International Law Commission’s [ILC] commentary on what became Article 31(3)(c). See ILC, ‘The law of treaties’, commentary on draft Article 27, para. 16, in A. D. Watts (ed), *The International Law Commission 1949–1998* (Oxford University Press, Oxford, 1999) vol II, at p. 690. Other decisions and authors have since followed this path. See, for example, F. Romanin Jacur, ‘The making of international environmental law,’ in C. Brölmann and Y. Radi (eds), *Research Handbook on the Theory and Practice of International Law Making* (Edward Elgar, Cheltenham, 2016) pp. 419-441.

²⁶ Paris Agreement (adopted 12 December 2015, in force 4 November 2016) U.N. Doc. FCCC/CP/2015/L.9/Rev/1 (Dec. 12, 2015).

²⁷ Note 13, *supra*.

with the UNCLOS's enforceable requirements to prevent, reduce and control them.²⁸ The UNCLOS supports the application of obligations set out by the UNFCCC regime to address these emissions.²⁹

17. The UNFCCC and its instruments contribute to supporting the requirement of the UNCLOS that States must act on anthropogenic GHG emissions, and provide useful additional specificity to the requirements of the UNCLOS by setting out strategies and mechanisms for doing so (e.g., Nationally Determined Contributions and Global Stocktake)³⁰. But it is crucial to note that the UNCLOS provides a clear legal basis to enforce action on GHG emissions. It is also essential to note that the UNCLOS applies to all biotic and abiotic parts of the marine environment and provides the legal mechanisms to apply other relevant treaties and instruments on the protection of the marine environment to devise further measures to support the implementation of both the UNFCCC and the UNCLOS. (See also para. 25 *et seq.*, *infra*.)

18. As already highlighted in paragraph 8, the UNCLOS requires that new measures designed to prevent, reduce and control GHG emissions must not transform one type of pollution into another or transfer damage or hazards from one area to another.³¹ Examples include ocean geo-engineering techniques, such as ocean fertilisation and sub-seabed sequestration of carbon dioxide, which are regulated under the UNCLOS and the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972³² (LC) and its 1996 Protocol (LP).³³ This provision - UNCLOS Article 195 - is also relevant to other technologies to decrease GHG emissions, such as those developed by the shipping industry to capture such emissions.³⁴ Article 195 applies to the release of the captured gas into the marine environment.³⁵

19. The UNCLOS and the UNFCCC bind the same community of States, with the UNCLOS providing the enforceable legal basis and legal recourse mechanisms for the increasingly critically necessary immediate actions on excessive GHG emissions that have, so far, eluded the

²⁸ P. Verlaan, 'Geo-engineering, the Law of the Sea, and Climate Change,' *Carbon and Climate Law Review* 2009 (4):446-458 (2009); A. Boyle, 'Law of the Sea Perspectives on Climate Change,' *International Journal of Marine and Coastal Law* 27(4):831-838 (2012); Verlaan, *op. cit. supra*, note 5, especially note 7 therein.

²⁹ UNCLOS Article 311(2): "This Convention shall not alter the rights and obligations of States Parties which arise from other agreements compatible with this Convention and which do not affect the enjoyment by other States Parties of their rights or the performance of their obligations under this Convention." See also paragraph 12, *supra*, with regard to the status as customary international law of Part XII.

³⁰ Paris Agreement, *supra* note 25, Article 6.

³¹ UNCLOS Article 195.

³² Adopted 29 December 1972, in force 30 August 1975, 11 *ILM* 1294.

³³ Adopted 7 November 1996, in force 24 March 2006, 36 *ILM* (1997) 1.

³⁴ For example, scrubbers, which aim to capture emitted GHG before their release into the atmosphere.

³⁵ See International Maritime Organization (IMO), Marine Environment Protection Committee (MEPC), Report on MEPC 79 (12-16 December 2022) re working towards a strengthened revised Strategy on Reduction of GHG Emission from Ships, with a view to its adoption at MEPC 80 (3-7 July 2023). Available at: <https://www.imo.org/en/MediaCentre/PressBriefings/pages/MEPC-79.aspx>.

UNFCCC and its protocols. Had the UNCLOS and the UNFCCC been interpreted and implemented together with regard to preventing, reducing and controlling anthropogenic GHG emissions (as required by the UNCLOS) in 1994, when they both entered into force, the environmental crisis the world is now facing even as the 28th Conference of the Parties of the UNFCCC (COP 28) is scheduled to convene in Dubai in 2023³⁶ – might have been less acute.

20. Anthropogenic GHG emissions and the climate crisis are directly regulated under both the UNCLOS and the UNFCCC regime. They must be applied complementarily. Any *lex specialis* argument has no merit. The treaties are consistent and mutually reinforcing given their overlap in scope, therefore requiring their joint application according to the principles of interpretation in good faith³⁷, integration³⁸, harmonisation and respect for the unity and coherence of international law³⁹, not its fragmentation. Note also in this context the principle of reconciliation relied on by Judge Weeramantry in the context of sustainable development.⁴⁰

THE UNCLOS IS THE KEYSTONE TO PROTECT AND PRESERVE THE MARINE ENVIRONMENT

21. The UNCLOS was conceived by its negotiators as more than a simple treaty or a simple framework/umbrella treaty. It establishes a comprehensive regime complex composed both of direct substantive obligations⁴¹ and incorporations by reference,⁴² including of elements⁴³ that require further elaboration. As elements, note that both the UNFCCC regime and the Convention on Biological Diversity⁴⁴ (CBD) can also be interpreted as such.⁴⁵ The UNCLOS is the keystone of the international legal regime on marine environmental protection and preservation because it

³⁶ COP 28 is scheduled to meet 30 November-12 December 2023.

³⁷ VCLT Article 31(1), *supra* note 25.

³⁸ VCLT Article 31(3)(c), *ibid.*

³⁹ M. Koskeniemi, 'Fragmentation of international law: Difficulties arising from the diversification and expansion of international law,' *Report of the Study Group of the International Law Commission*, UNGA A/CN.4/L.702, 2006 [12, 14]

⁴⁰ "Each principle cannot be given free rein, regardless of the other. The law necessarily contains within itself the principle of reconciliation," in Separate Opinion of Judge Weeramantry in the case of the Gabčíkovo-Nagymaros Project (*Hungary/Slovakia*), Judgement, ICJ Reports 1997:7 [87]. The context for this statement is the necessary reconciliation of bodies of rules relating to development and those relating to the environment.

⁴¹ E.g., UNCLOS Articles 192, 194(5), 220(5) and (6).

⁴² E.g., UNCLOS Articles 208(30 and 210(6).

⁴³ E.g., regulations, standards and procedures adopted by sectoral regimes, such as the International Maritime Organization (IMO) for shipping and the London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (LC) and its Protocol (LP; together LC/LP). Adoption of the Agreement for the Implementation of the UNCLOS of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Species (adopted 4 August 1995, in force 11 December 2001) 2167 *UNTS* 3, is another example of a sectoral regime implementing, e.g., UNCLOS Articles 63, 64 and 118.

⁴⁴ *Supra* note 5.

⁴⁵ SCS Arbitration Case, *supra* note 4, at para. 945.

integrates other norms of international law applicable to the marine environment,⁴⁶ as well as globally accepted international standards, recommended practices and procedures.⁴⁷ Treaties that were adopted before the UNCLOS and that apply to the protection of the marine environment have been incorporated directly and/or by reference.⁴⁸ Subsequent treaties generally state that they are adopted without prejudice to the rights and obligations defined in UNCLOS. For example, the CBD, which, like the UNFCCC, was adopted at the Rio Summit⁴⁹, contains such a clause.⁵⁰ Its absence in the UNFCCC may be explained by the negotiators not envisaging its application to the ocean as an important part, as shown by the reference to oceans in only one provision. This absence justifies further the importance of the application of the UNCLOS to aspects of the climate crisis that relate to the marine environment and are not included in the UNFCCC.

22. Also essential to the protection and preservation of the marine environment in the context of the climate crisis, is the obligation of States to act with due diligence in order to discharge their duty to protect and preserve the marine environment.⁵¹ This obligation is recognized as a general principle of international law. According to this principle, the obligation to act with due diligence entails an obligation to “deploy adequate means, to exercise best possible efforts, to do the utmost”⁵² to fulfil the obligation concerned, such as, for example, those contained in UNCLOS Articles 192 and 194, including on “the protection of rare or fragile ecosystems as well as the

⁴⁶ UNCLOS Article 237: ‘Specific obligations assumed by states under special conventions, with respect to the marine environment, should be carried out in a manner consistent with the general principles set forth in this Convention. See also SCS Arbitration, Arbitral Award at para. 942. The preeminence of the UNCLOS is further reinforced by its comprehensiveness (as it aims to regulate all activities at sea), approaching universality (with 167 state parties and the European Union) and its intertemporal approach. (E.g., see Boyle (2005) *op. cit.*, *supra*, note 25; A. Boyle, ‘Further Developments of the 1982 Convention on the Law of the Sea,’ in R. Barnes, D. Freestone & D. Ong (eds) *The Law of the Sea: Progress and Prospects* (Oxford University Press, Oxford, 2006) pp. 40-62 and C. Redgwell, ‘From Permission to Prohibition: The 1982 Convention on the Law of the Sea and Protection of the Marine Environment,’ in Barnes *et al.*, *ibid.*, pp. 180-191.

⁴⁷ E.g., the UNCLOS Article 212(1) on pollution from or through the atmosphere and the UNCLOS Article 210(4) in the context of pollution by dumping (i.e., the deliberate disposal of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea), another relevant provision in the context of the CO₂ capture technologies developed to decrease atmospheric GHG, as it prohibits the waste captured from being disposed of at sea as dumping.

⁴⁸ E.g., the definition of dumping in the 1972 LC is identical to that included in the text of the UNCLOS that was adopted 10 years later. See UNCLOS Article 1(1)(5). The LC, as well as arguably the LP, are also incorporated by reference according to UNCLOS Article 210(4).

⁴⁹ United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, 3-14 June 1992.

⁵⁰ CBD Article 22(2).

⁵¹ The evolution of this principle of due diligence in the context of the marine environment can be traced back to the case concerning Pulp Mills on the River Uruguay (*Argentina v. Uruguay*), Judgment of 20 April 2010, ICJ Reports 2010 [Pulp Mills Case] p. 14, at paras 101 and 197, followed by ITLOS Case No. 17 - Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area, Advisory Opinion, 1 February 2011 [ITLOS Case 17], ITLOS Reports 2011, p. 10 at paras 110-116; ITLOS Case 21 (*supra* note 6) at paras 116-124, and the SCS Arbitration (*supra* note 4).

⁵² ITLOS Case 17 (*supra* note 51) at para. 110.

habitat of depleted, threatened or endangered species and other forms of marine life.” It is important to note accordingly that the measures are not limited to the prevention, reduction and control of pollution.⁵³ To discharge their obligation of due diligence, States must not only adopt appropriate rules and measures. They must also adopt “a certain level of vigilance in their enforcement and in the exercise of administrative control”.⁵⁴ This “certain level of vigilance” has been found to include the monitoring of activities undertaken⁵⁵ and effective exercise of jurisdiction and control.⁵⁶ Domestic laws, regulations and measures must include enforcement mechanisms to monitor and secure compliance and sanctions must be sufficient to deter violation.⁵⁷

23. Furthermore, the content of the obligation to protect and preserve the marine environment with due diligence is also informed by specific obligations set out in other applicable international instruments⁵⁸ that relate to the protection of the marine environment and are applicable between the parties. More generally, they are also informed by treaties that form part of the corpus of international law as they are the subject of near universal adherence, such as the CBD⁵⁹ and the Convention on International Trade in Endangered Species of Wildlife Fauna and Flora (CITES)^{60, 61}

24. These duties of protection and of due diligence are particularly relevant in the context of on-going legal and policy developments⁶² on CO₂ storage and sequestration in the marine environment, including in sub-seabed formations, seabed sediments and/or in marine ecosystems generally. Rare or fragile ecosystems and the habitat of depleted, threatened or endangered species, such as seagrass beds, mangrove and saltmarshes, are areas that are

⁵³ *Republic of Mauritius v United Kingdom of Great Britain and Northern Ireland*, 18 March 2015 [Chagos MPA Arbitration Case], para. 538: “In the Tribunal’s view, the Parties’ disagreement regarding the scope of Article 194 is answered by the fifth provision of that Article, which expressly provides that – The measures taken in accordance with this Part shall include those necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life. Article 194 is accordingly not limited to measures aimed strictly at controlling pollution and extends to measures focussed primarily on conservation and the preservation of ecosystems. As repeatedly justified by the United Kingdom, the MPA is such a measure.”

⁵⁴ *Pulp Mills Case* (*supra* note 51) at para. 197.

⁵⁵ *Ibid.*

⁵⁶ ITLOS Case 21, at para. 117: “The Tribunal holds the view that, since article 94, paragraph 2, of the Convention starts with the words “[i]n particular”, the list of measures that are to be taken by the flag State to ensure effective exercise of its jurisdiction and control over ships flying its flag in administrative, technical and social matters is only indicative, not exhaustive.”

⁵⁷ *Ibid.*, at paras 119, 125 and 138.

⁵⁸ UNCLOS Article 237(2), as held in the SCS Arbitration Case (*supra* note 4) at para. 942.

⁵⁹ The CBD has 198 Parties (including the European Union and the Holy See).

⁶⁰ Adopted 3 March 1973, in force 1 July 1975) 993 *UNTS* 243 [CITES]. It has 184 Parties, including the European Union.

⁶¹ SCS Arbitration Case (*supra* note 4) at paras 941, 945 and 956.

⁶² E.g., Blue Carbon Initiative and Global Stocktake under the UNFCCC.

vulnerable to the effects of anthropogenic GHG emissions on the marine environment. They may be considered as sinks or reservoirs that must also be protected and preserved under the UNCLOS. The UNCLOS therefore reinforces the protection that may be envisaged under the UNFCCC if they are considered as potential sinks or reservoirs⁶³ of CO₂ and elaborates on the content under the due diligence principle.⁶⁴

25. The same is true for CO₂ capture and its storage in the sub-seabed. This is regulated under the UNCLOS⁶⁵, the 1972 LC⁶⁶ and the 1996 LP⁶⁷ (together: LC/LP), the latter being incorporated by reference.⁶⁸ Note that UNCLOS Articles 208 and 210 require States to adopt laws, regulations and measures that are no less effective than international rules, standards and recommended practices and procedure to prevent, reduce and control the pollution concerned. This therefore means that standards and recommended practices that may be adopted under the UNFCCC with respect to sinks and reservoirs in the marine environment must also fully comply with the UNCLOS, including the duty of due diligence and rules, standards and procedures incorporated by reference.

26. Implementation of the duties set out in the paragraph above must be addressed under the UNCLOS as the keystone treaty, further facilitated through the lens of other relevant sectoral and topical global treaties and instruments, including the UNFCCC,⁶⁹ which provide additional detail conducive to achieving effective implementation of their objectives and those of the UNCLOS, as it recognizes in Article 311.⁷⁰

⁶³ UNFCCC Article 4, *supra* note 2 and Paris Agreement Article 6, *supra* note 26.

⁶⁴ Note that the standard of the obligation of due diligence is a variable concept that evolves over time, as measures considered sufficiently diligent at a certain moment may not be so later in the light of new scientific or technological knowledge or as the characterization of the risk has changed. See ITLOS Advisory Opinions in Cases 17 (para. 117) and 21 (para. 132).

⁶⁵ In particular UNCLOS Article 195, but also Articles 208 and 210 depending on the circumstances, for such anthropogenic storage.

⁶⁶ *Supra* note 32.

⁶⁷ *Supra* note 33.

⁶⁸ In addition to the 2006 and 2009 Amendments to the LP with regard to, respectively, CO₂ streams from CO₂ capture processes for sequestration (Resolution LP.1(1)), and cross-border transportation of CO₂ for sub-seabed storage (Resolution LP.3(4)), applicable to States that are a party and have elected to be bound, the 2012 Specific Guidelines for Assessment of Carbon Dioxide Streams for Disposal into Sub-seabed Geological Formations ((LC 34/15, annex 8) were negotiated and adopted on 2 November 2012 jointly by the parties to the LC and to the LP and may therefore be considered as applicable by reference, by virtue of the UNCLOS.

⁶⁹ See UNCLOS Article 212(1) on States' obligation "to adopt laws and regulations to prevent, reduce and control pollution of the marine environment from or through the atmosphere (...) taking into account internationally agreed rules, standards and recommended practices and procedures (...)". Note also Articles 212(2) on the obligation to also "adopt other measures as may be necessary (...)" and 212(3) on the obligation to "establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control such pollution". The UNFCCC may be seen as having been developed to contribute to this purpose.

⁷⁰ See discussion in paragraphs 16 and 17 above.

27. In implementing the UNCLOS at the national/domestic level, it must be ensured that the necessary measures developed to respond to the climate crisis are consistent with this overarching international legal order for the seas and oceans established by the UNCLOS. Investments in the development of technological and scientific measures to deal with the adverse consequences of anthropogenic GHG emissions in particular and the climate crisis in general, must comply with this legal context and be framed accordingly from their inception.

28. Although the UNCLOS is part of an intricately woven legal fabric of diverse rules and principles of international law, judicial and arbitral interpretations, institutional mechanisms, and other applicable treaties,⁷¹ it is the keystone treaty for the protection and preservation of the marine environment. Other treaties and instruments comprising this legal fabric, such as the UNFCCC, contribute further perspectives and specificity to the interpretation of the UNCLOS, for which it serves as the overall integrating instrument by incorporating them by reference. But the UNCLOS provides enforceable requirements for marine environmental protection in general, and for the elimination of anthropogenic GHG emissions at source in particular. This is necessary for meaningful mitigation of global warming and its deleterious effects, including climate change, to occur. It will also support the UNFCCC regime in achieving its objectives.

CONCLUSION

29. The UNCLOS is essential, to address the causes of climate change, including anthropogenic GHG emissions, effectively, as well as all other degradations of the marine environment caused or exacerbated by human activities.

30. The specific obligations of State Parties to the UNCLOS, with regard to the questions submitted to the Tribunal, are found in at least the following Articles of the UNCLOS:

- i. Article 1 1. (1) (4) (GHG emissions are a pollutant within the definition of pollution of the marine environment and the resultant “climate change impacts” which include but are not limited to the examples given in the questions, are demonstrably resulting in all the deleterious effects set out in the non-exhaustive list of examples thereof in that Article);

⁷¹In particular, see the VCLT, *supra* note 25. It is the primary source for mechanisms governing treaty interpretation. See also: C. McLachlan, ‘The principle of systemic integration and Article 31(3)(c) of the Vienna Convention.’ *International and Comparative Law Quarterly* 54:279-320 (2005); A. Aust, *Modern Treaty Law and Practice*, 3rd ed., (Cambridge University Press, Cambridge, 2013). See also for a further illustration of the broader legal complexities within which all work with legally binding international instruments is situated and which must be observed: J. Crawford, *Brownlie’s Principles of Public International Law*, 9th ed., (Oxford University Press, Oxford, 2019); <https://10.1093/he/9780198737445.001.0001>. The UNCLOS invokes these complexities in, e.g., Arts. 237 and 311; see also Boyle (2005), *op. cit.*, *supra* note 25.

- ii. Articles 192-199
- iii. Articles 204-206
- iv. Articles 207-212
- v. Articles 213-220
- vi. Article 222
- vii. Articles 234-235
- viii. Article 237
- ix. Article 288.

31. The Advisory Committee on Protection of the Sea stands ready to respond to any requests for further information, and appreciates the opportunity to contribute to the work of the International Tribunal on the Law of the Sea.

Respectfully submitted,

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